The Mosaic Company

2024 CDP Corporate Questionnaire 2024

Word version

Important: this export excludes unanswered questions
This document is an export of your organization's CDP questionnaire response. It contains all data points for questions that are answered or in progress. There may be questions or data points that you have been requested to provide, which are missing from this document because they are currently unanswered. Please note that it is your responsibility to verify that your questionnaire response is complete prior to submission. CDP will not be liable for any failure to do so.

04/15/2025, 12:39 pm

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C1. Introduction

(1.1) In which language are you submitting your response?

Select from:

☑ English

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

Select from:

☑ USD

(1.3) Provide an overview and introduction to your organization.

(1.3.2) Organization type

Select from:

☑ Publicly traded organization

(1.3.3) Description of organization

The Mosaic Company is the world's leading producer and marketer of concentrated 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 2023 were approximately 13.7 billion. Our business engages in every phase of crop nutrition development, from the mining of resources to the production and distribution of crop nutrients, animal feed ingredients and industrial products for customers around the globe. Our customer base includes wholesalers, retail dealers and individual growers in approximately 40 countries. Mosaic is committed to decarbonization and has publicly stated net-zero targets. Additionally, we are committed to achieving sustainability targets, including our short-, mid- and long-term GHG targets. At Mosaic, we think of sustainability broadly: as the ability to sustain our business, to prosper and deliver value to our myriad stakeholders over many years. Our ESG performance targets, progress toward which we report annually, allow us to stretch for meaningful long-term improvements in the areas that are most important to our business. While our emissions profile is relatively low compared to many of our industry peers, we have still prioritized greenhouse gas emissions reductions as part of our long-term ESG strategy – in part because we are determined to participate in solutions to address climate change, and because we understand the interdependencies between climate, water, land and biodiversity and how critical they are to our mission to help the world grow the food it needs. Our action on climate change is good for the environment; the communities and ecosystems in which we operate; and for the long-term financial health and viability of our company. We are a signatory to the United Nations Global Compact and we support its ten universal principles including human

rights, labour, environment and anti-corruption. The data contained in this report is collected using accepted scientific and industry methodologies, based on assumptions, estimates, and extrapolations. There are inherent uncertainties and limitations in our data collection and presentation. For instance, some information regarding The Mosaic Company ("Mosaic") comes from third-party sources and operations beyond our control. While we believe this information is reasonably accurate and based on accepted principle and methodologies, the collection of this data is outside our direct influence. Additionally, in certain instances, we have extrapolated some unavailable data. The use of terms "material", "materiality", "substantive", and "significant" and other similar terminology in this report refers to topics reflecting important economic, environmental, and social impacts of Mosaic or those designated as such under GHG Protocol, Global Reporting Initiative, or other global sustainability standards. These terms are not used as defined by securities laws or any other laws of the United State or any other jurisdiction, nor are these terms used in the context of financial statements and financial reporting. This report may contain "forward-looking statements" as defined under US Federal securities laws, identified by words and selections within the report like "believe", "intend", "expect", "estimate", "anticipate", "project", and "will." These statements are not historical facts, but current expectations of future events based on certain assumptions. Forward-looking statements are not guarantees of future performance and are subject to risks and uncertainties that could cause Mosaic actual results to differ from our expectations. We assume no obligation to revise or update any information in the present report.
[Fixed row]

(1.4) State the end date of the year for which you are reporting data. For emissions data, indicate whether you will be providing emissions data for past reporting years.

	End date of reporting year	Alignment of this reporting period with your financial reporting period	Indicate if you are providing emissions data for past reporting years
	12/31/2023	*Select from:* ☑ Yes	*Select from:* ☑ No

[Fixed row]

(1.4.1) What is your organization's annual revenue for the reporting period?

13696100000

(1.5) Provide details on your reporting boundary.

	Is your reporting boundary for your CDP disclosure the same as that used in your financial statements?
	Select from: ☑ Yes

[Fixed row]

(1.6) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

ISIN code - bond

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ No

ISIN code - equity

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ No

CUSIP number

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ No

Ticker symbol

(1.6.1) Does your organization use this unique identifier?

Select from:
☑ Yes

(1.6.2) Provide your unique identifier

MOS

SEDOL code

(1.6.1) Does your organization use this unique identifier?

Select from:
☑ No

LEI number

(1.6.1) Does your organization use this unique identifier?

Select from:
☑ No

D-U-N-S number

(1.6.1) Does your organization use this unique identifier?

Select from:
☑ No

Other unique identifier

(1.6.1) Does your organization use this unique identifier?

Select from:
☑ No
[Add row]

(1.7) Select the countries/areas in which you operate.

Select all that apply
☑ Peru
☑ China
☑ Brazil
☑ Canada
☑ Paraguay
☑ United States of America

(1.8) Are you able to provide geolocation data for your facilities?

	Are you able to provide geolocation data for your facilities?	Comment
	Select from: ☑ Yes, for all facilities	*Includes mining, manufacturing, blending and distribution facilities.*

[Fixed row]

(1.8.1) Please provide all available geolocation data for your facilities.

Row 1

(1.8.1.1) Identifier

Bartow

(1.8.1.2) Latitude

27.907545

(1.8.1.3) Longitude

-81.800537

Row 2

(1.8.1.1) Identifier

Alto Araguaia

(1.8.1.2) Latitude

-17.151678

(1.8.1.3) Longitude

53.192689

Row 3

(1.8.1.1) Identifier

Green Bay

(1.8.1.2) Latitude

27.820769

(1.8.1.3) Longitude

-81.784767

Row 4

(1.8.1.1) Identifier

Uberaba II

(1.8.1.2) Latitude

-19.788737

(1.8.1.3) Longitude

-47.943228

Row 5

(1.8.1.1) Identifier

Paranagua II

(1.8.1.2) Latitude

-25.531969

(1.8.1.3) Longitude

-48.549938

Row 6

(1.8.1.1) Identifier

Rondonópolis

(1.8.1.2) Latitude

-16.619864

(1.8.1.3) Longitude

-54.701082

Row 7

(1.8.1.1) Identifier

Taquari-Vassouras

(1.8.1.2) Latitude

-10.651971

(1.8.1.3) Longitude

-37.03583

Row 8

(1.8.1.1) Identifier

Hookers Point

(1.8.1.2) Latitude

27.917532

(1.8.1.3) Longitude

-82.439013

Row 9

(1.8.1.1) Identifier

Tapira

(1.8.1.2) Latitude

-19.842885

(1.8.1.3) Longitude

-46.852427

Row 10

(1.8.1.1) Identifier

Bonnie

(1.8.1.2) Latitude

27.863068

(1.8.1.3) Longitude

-81.932498

Row 11

(1.8.1.1) Identifier

Taft

(1.8.1.2) Latitude

30.019122

(1.8.1.3) Longitude

-90.774707

Row 12

(1.8.1.1) Identifier

Cajati

(1.8.1.2) Latitude

-24.714879

(1.8.1.3) Longitude

-48.124609

Row 13

(1.8.1.1) Identifier

Rio Verde

(1.8.1.2) Latitude

-17.807942

(1.8.1.3) Longitude

-51.008695

Row 14

(1.8.1.1) Identifier

South Pierce

(1.8.1.2) Latitude

27.765583

(1.8.1.3) Longitude

-81.940331

Row 15

(1.8.1.1) Identifier

Candeias

(1.8.1.2) Latitude

-12.66295

(1.8.1.3) Longitude

-38.51944

Row 16

(1.8.1.1) Identifier

South Fort Meade

(1.8.1.2) Latitude

27.647848

(1.8.1.3) Longitude

-81.756477

Row 17

(1.8.1.1) Identifier

Uberaba

(1.8.1.2) Latitude

-19.982393

(1.8.1.3) Longitude

-47.900391

Row 18

(1.8.1.1) Identifier

Carnalita

(1.8.1.2) Latitude

-10.651971

(1.8.1.3) Longitude

-37.03583

Row 19

(1.8.1.1) Identifier

Savage

(1.8.1.2) Latitude

44.779415

(1.8.1.3) Longitude

-93.336426

Row 20

(1.8.1.1) Identifier

Patrocinio

(1.8.1.2) Latitude

-19.015003

(1.8.1.3) Longitude

-46.80879

Row 21

(1.8.1.1) Identifier

Miski Mayo

(1.8.1.2) Latitude

-5.802229

(1.8.1.3) Longitude

-81.05289

Row 22

(1.8.1.1) Identifier

Esterhazy K2

(1.8.1.2) Latitude

50.65768

(1.8.1.3) Longitude

-101.848412

Row 23

(1.8.1.1) Identifier

Uncle Sam

(1.8.1.2) Latitude

30.037428

(1.8.1.3) Longitude

-90.827377

Row 24

(1.8.1.1) Identifier

Plant City

(1.8.1.2) Latitude

28.168056

(1.8.1.3) Longitude

-82.141667

Row 25

(1.8.1.1) Identifier

Hookers Prairie

(1.8.1.2) Latitude

27.917828

(1.8.1.3) Longitude

-82.437286

Row 26

(1.8.1.1) Identifier

Catalao II

(1.8.1.2) Latitude

-18.164763

(1.8.1.3) Longitude

-47.905652

Row 27

(1.8.1.1) Identifier

Fospar

(1.8.1.2) Latitude

-25.510841

(1.8.1.3) Longitude

-48.521633

Row 28

(1.8.1.1) Identifier

Rio Grande II

(1.8.1.2) Latitude

-32.102711

(1.8.1.3) Longitude

-52.113065

Row 29

(1.8.1.1) Identifier

Wingate

(1.8.1.2) Latitude

27.504131

(1.8.1.3) Longitude

-82.130203

Row 30

(1.8.1.1) Identifier

Belle Plaine

(1.8.1.2) Latitude

50.427658

(1.8.1.3) Longitude

-105.198296

Row 31

(1.8.1.1) Identifier

Uberaba III

(1.8.1.2) Latitude

-19.993207

(1.8.1.3) Longitude

-47.883844

Row 32

(1.8.1.1) Identifier

Campo Grande

(1.8.1.2) Latitude

-21.258281

(1.8.1.3) Longitude

-48.492311

Row 33

(1.8.1.1) Identifier

Patos de Minas

(1.8.1.2) Latitude

-18.374014

(1.8.1.3) Longitude

-46.913118

Row 34

(1.8.1.1) Identifier

Esterhazy K3

(1.8.1.2) Latitude

50.646084

(1.8.1.3) Longitude

-101.991946

Row 35

(1.8.1.1) Identifier

Esterhazy K1

(1.8.1.2) Latitude

50.729282

(1.8.1.3) Longitude

-101.933723

Row 36

(1.8.1.1) Identifier

Catalão

(1.8.1.2) Latitude

-18.190415

(1.8.1.3) Longitude

-47.970764

Row 37

(1.8.1.1) Identifier

Colonsay

(1.8.1.2) Latitude

51.934105

(1.8.1.3) Longitude

-105.763496

Row 38

(1.8.1.1) Identifier

Araxa

(1.8.1.2) Latitude

-19.629278

(1.8.1.3) Longitude

-46.977984

Row 39

(1.8.1.1) Identifier

New Wales

(1.8.1.2) Latitude

27.832701

(1.8.1.3) Longitude

-82.051048

Row 40

(1.8.1.1) Identifier

Tampa Marine

(1.8.1.2) Latitude

27.926672

(1.8.1.3) Longitude

-82.43187

Row 41

(1.8.1.1) Identifier

Four Corners

(1.8.1.2) Latitude

27.646202

(1.8.1.3) Longitude

-82.087097

Row 42

(1.8.1.1) Identifier

Villeta

(1.8.1.2) Latitude

-25.667817

(1.8.1.3) Longitude

-57.690011

Row 43

(1.8.1.1) Identifier

Sorriso

(1.8.1.2) Latitude

-12.604993

(1.8.1.3) Longitude

-55.749907

Row 44

(1.8.1.1) Identifier

Big Bend

(1.8.1.2) Latitude

27.80416

(1.8.1.3) Longitude

-82.397083

Row 45

(1.8.1.1) Identifier

Hopewell

(1.8.1.2) Latitude

27.915899

(1.8.1.3) Longitude

-82.131219

Row 46

(1.8.1.1) Identifier

Pekin

(1.8.1.2) Latitude

40.587875

(1.8.1.3) Longitude

-89.660637

Row 47

(1.8.1.1) Identifier

Riverview

(1.8.1.2) Latitude

27.860191

(1.8.1.3) Longitude

-82.3936

Row 48

(1.8.1.1) Identifier

Carlsbad

(1.8.1.2) Latitude

32.412258

(1.8.1.3) Longitude

-103.939217

Row 49

(1.8.1.1) Identifier

Henderson

(1.8.1.2) Latitude

37.815159

(1.8.1.3) Longitude

-87.658173

Row 50

(1.8.1.1) Identifier

Faustina

(1.8.1.2) Latitude

30.083384

(1.8.1.3) Longitude

-90.914391

Row 51

(1.8.1.1) Identifier

Port Sutton

(1.8.1.2) Latitude

27.905096

(1.8.1.3) Longitude

-82.410554

Row 52

(1.8.1.1) Identifier

South Pasture

(1.8.1.2) Latitude

27.585763

(1.8.1.3) Longitude

-81.94291

Row 53

(1.8.1.1) Identifier

Pine Bend

(1.8.1.2) Latitude

44.740681

(1.8.1.3) Longitude

-93.112228

Row 54

(1.8.1.1) Identifier

Paranagua

(1.8.1.2) Latitude

-25.510841

(1.8.1.3) Longitude

-48.521633

Row 55

(1.8.1.1) Identifier

Yantai

(1.8.1.2) Latitude

37.550464

(1.8.1.3) Longitude

121.38648

Row 56

(1.8.1.1) Identifier

Qinhaungdao

(1.8.1.2) Latitude

39.919504

(1.8.1.3) Longitude

119.608111

Row 57

(1.8.1.1) Identifier

Galveston

(1.8.1.2) Latitude

29.30135

(1.8.1.3) Longitude

-94.7977
[Add row]

(1.14) In which part of the chemicals value chain does your organization operate?

Bulk inorganic chemicals

☑ Ammonia

☑ Fertilizers

Other chemicals

☑ Other, please specify :Animal Feed

(1.24) Has your organization mapped its value chain?

(1.24.1) Value chain mapped

Select from:

☑ Yes, we have mapped or are currently in the process of mapping our value chain

(1.24.2) Value chain stages covered in mapping

Select all that apply

☑ Upstream value chain

☑ Downstream value chain

(1.24.3) Highest supplier tier mapped

Select from:

☑ Tier 1 suppliers

(1.24.4) Highest supplier tier known but not mapped

Select from:

☑ Tier 2 suppliers

(1.24.7) Description of mapping process and coverage

Our current Scope 3 emissions mapping process focuses on key categories within our value chain. Specifically, we have developed a detailed mapping of emissions from Category 1 (Purchased Goods and Services) for ammonia, where we calculate emissions from our tier 1 suppliers. This approach has allowed us to establish a foundational understanding of our upstream emissions. Our other material Scope 3 emission is for category 11 – "Use of sold products", which includes nitrous oxide (N_2O) emissions associated with ammoniated phosphate fertilizer use. Mosaic uses an IPCC Tier 1 modelled approach to calculate Scope 3, Category 11 emissions. By expanding our mapping efforts, we aim to achieve a more complete and accurate representation of our Scope 3 emissions, thereby enabling more effective emission reduction strategies across our value chain.
[Fixed row]

(1.24.1) Have you mapped where in your direct operations or elsewhere in your value chain plastics are produced, commercialized, used, and/or disposed of?

(1.24.1.1) Plastics mapping

Select from:
☑ No, but we plan to within the next two years

(1.24.1.5) Primary reason for not mapping plastics in your value chain

Select from:
☑ Not an immediate strategic priority

(1.24.1.6) Explain why your organization has not mapped plastics in your value chain

Our organization has not mapped plastics within our value chain to date primarily because we do not produce or commercialize plastics as part of our operations. As a potash and phosphate mining and fertilizer manufacturing company, our core activities involve the extraction and processing of mineral resources, which do not incorporate plastics in any significant quantities. In addition, to the extent possible, bulk transport is used to minimize the need for extensive packaging throughout the supply chain. Our focus remains on the materials and processes directly related to our industry, promoting our environmental and sustainability efforts to be concentrated where they will have the most impact.
[Fixed row]

C2. Identification, assessment, and management of dependencies, impacts, risks, and opportunities

(2.1) How does your organization define short-, medium-, and long-term time horizons in relation to the identification, assessment, and management of your environmental dependencies, impacts, risks, and opportunities?

Short-term

(2.1.1) From (years)

0

(2.1.3) To (years)

4

(2.1.4) How this time horizon is linked to strategic and/or financial planning

The short-term time horizon of 0-4 years is closely aligned with Mosaic's overall strategic planning framework. This period is considered critical for implementing immediate actions that support our broader strategic objectives. While our five-year planning process is considered "medium-term", any time period less than five years falls into the short-term category. Within this horizon, we focus on executing key projects, optimizing operational efficiency, and managing short-term targets. This alignment promotes that our short-term initiatives are directly connected to Mosaic's strategic goals, facilitating seamless integration with our financial planning processes.

Medium-term

(2.1.1) From (years)

5

(2.1.3) To (years)

9

(2.1.4) How this time horizon is linked to strategic and/or financial planning

The medium-term time horizon of 5-9 years is generally aligned with Mosaic's overall strategic planning framework. Fertilizer, mining, beneficiation, and manufacturing processes are capital intensive and therefore, time horizons are typically longer than other unrelated businesses. The company's five-year planning process is specifically designed to address medium-term objectives, allowing our strategic initiatives to be well-positioned for success within this timeframe. By focusing on the 5-9 year horizon, we are able to align our medium-term goals with our financial planning, enabling us to effectively manage resources, anticipate market trends, and support long-term business sustainability.

Long-term

(2.1.1) From (years)

10

(2.1.2) Is your long-term time horizon open ended?

Select from:

☑ No

(2.1.3) To (years)

20

(2.1.4) How this time horizon is linked to strategic and/or financial planning

The long-term time horizon, which extends beyond 9 years and includes Mosaic's 2030 vision, is deeply integrated into our strategic planning framework. This period is essential for shaping the future direction of the company, aligning with our commitment to long-term sustainability and value creation. While our five-year planning process addresses medium-term objectives, the long-term horizon allows us to focus on transformative goals that will drive our business growth and innovation beyond the next decade. By considering long-term impacts in our strategic and financial planning, Mosaic remains resilient and adaptable to future challenges and opportunities, solidifying our position in the industry for years to come.
[Fixed row]

(2.2) Does your organization have a process for identifying, assessing, and managing environmental dependencies and/or impacts?

	Process in place	Dependencies and/or impacts evaluated in this process
	Select from: ☑ Yes	*Select from:* ☑ Both dependencies and impacts

[Fixed row]

(2.2.1) Does your organization have a process for identifying, assessing, and managing environmental risks and/or opportunities?

	Process in place	Risks and/or opportunities evaluated in this process	Is this process informed by the dependencies and/or impacts process?
	Select from: ☑ Yes	*Select from:* ☑ Both risks and opportunities	*Select from:* ☑ Yes

[Fixed row]

(2.2.2) Provide details of your organization's process for identifying, assessing, and managing environmental dependencies, impacts, risks, and/or opportunities.

Row 1

(2.2.2.1) Environmental issue

Select all that apply

☑ Water

(2.2.2.2) Indicate which of dependencies, impacts, risks, and opportunities are covered by the process for this environmental issue

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(2.2.2.3) Value chain stages covered

Select all that apply

☑ Direct operations

☑ Upstream value chain

☑ Downstream value chain

(2.2.2.4) Coverage

Select from:

☑ Full

(2.2.2.5) Supplier tiers covered

Select all that apply

☑ Tier 1 suppliers

(2.2.2.7) Type of assessment

Select from:

☑ Qualitative and quantitative

(2.2.2.8) Frequency of assessment

Select from:

☑ More than once a year

(2.2.2.9) Time horizons covered

Select all that apply

☑ Short-term

☑ Medium-term

☑ Long-term

(2.2.2.10) Integration of risk management process

Select from:

☑ Integrated into multi-disciplinary organization-wide risk management process

(2.2.2.11) Location-specificity used

Select all that apply

☑ Site-specific

☑ Local

☑ Sub-national

☑ National

(2.2.2.12) Tools and methods used

Commercially/publicly available tools

☑ WRI Aqueduct

Enterprise Risk Management

☑ Enterprise Risk Management

(2.2.2.13) Risk types and criteria considered

Acute physical

☑ Cyclones, hurricanes, typhoons

☑ Drought

☑ Heavy precipitation (rain, hail, snow/ice)

Chronic physical

☑ Increased ecosystem vulnerability

☑ Water availability at a basin/catchment level

☑ Water quality at a basin/catchment level

Policy

☑ Changes to national legislation

Market

☑ Availability and/or increased cost of raw materials

☑ Inadequate access to water, sanitation, and hygiene services (WASH)

Reputation

☑ Impact on human health

☑ Stakeholder conflicts concerning water resources at a basin/catchment level

Technology

☑ Transition to water efficient and low water intensity technologies and products

Liability

☑ Non-compliance with regulations

(2.2.2.14) Partners and stakeholders considered

Select all that apply

☑ NGOs

☑ Customers

☑ Employees

☑ Regulators

☑ Local communities

☑ Indigenous peoples

☑ Investors
☑ Suppliers
☑ Water utilities at a local level
☑ Other water users at the basin/catchment level

(2.2.2.15) Has this process changed since the previous reporting year?

Select from:
☑ No

(2.2.2.16) Further details of process

Mosaic incorporates water-related risks and opportunities into its risk management process, which is conducted at both facility and enterprise levels. We identify water management as an enterprise-level risk, and these risks are included in our Enterprise Risk Management (ERM) program biannually. The ERM process involves internal discussions with senior leadership and external intelligence, including discussions with subject matter experts. We use the WRI Aqueduct tool to assess water availability and quality at a catchment level. This analysis is refreshed annually and reported in our sustainability disclosure. Three sites, representing less than 10% of our total withdrawals, were located in extremely high-risk basins as of early 2024. We also use this tool to inform our climate risk assessment, which considers the risk of water-related perils at our operating sites under various warming scenarios. At a facility level, we focus on leading indicators to protect the environment. Employees participate in daily meetings to identify and discuss hazards and ways to reduce risks. Water-related risks are prioritized using a risk assessment matrix and controlled by implementing measures to reduce or eliminate the risk. The outcomes of the risk assessment methods inform water planning strategies and prioritize investments that drive conservation and reduce companywide risk. For example, based on rainfall modeling, we deployed additional treatment methods at our phosphate fertilizer manufacturing facilities to address the threat of excess rainfall. At an asset level, climate and associated risks are monitored regularly by teams at Mosaic using various methods. Certain climate-related risks are identified and scored using a risk register tool, which quantifies baseline, inherent, and residual risk scores and collaborates with the workforce to implement operational controls.

Row 2

(2.2.2.1) Environmental issue

Select all that apply
☑ Climate change

(2.2.2.2) Indicate which of dependencies, impacts, risks, and opportunities are covered by the process for this environmental issue

Select all that apply
☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(2.2.2.3) Value chain stages covered

Select all that apply

☑ Direct operations

☑ Upstream value chain

☑ Downstream value chain

(2.2.2.4) Coverage

Select from:

☑ Full

(2.2.2.5) Supplier tiers covered

Select all that apply

☑ Tier 1 suppliers

(2.2.2.7) Type of assessment

Select from:

☑ Qualitative and quantitative

(2.2.2.8) Frequency of assessment

Select from:

☑ More than once a year

(2.2.2.9) Time horizons covered

Select all that apply

☑ Short-term
☑ Medium-term
☑ Long-term

(2.2.2.10) Integration of risk management process

Select from:
☑ Integrated into multi-disciplinary organization-wide risk management process

(2.2.2.11) Location-specificity used

Select all that apply
☑ Site-specific
☑ Local
☑ Sub-national
☑ National

(2.2.2.12) Tools and methods used

Enterprise Risk Management
☑ Enterprise Risk Management

International methodologies and standards
☑ IPCC Climate Change Projections

Other
☑ Materiality assessment
☑ Scenario analysis

(2.2.2.13) Risk types and criteria considered

Acute physical
☑ Cyclones, hurricanes, typhoons

☑ Drought
☑ Flood (coastal, fluvial, pluvial, ground water)
☑ Heavy precipitation (rain, hail, snow/ice)

Chronic physical
☑ Changing precipitation patterns and types (rain, hail, snow/ice)
☑ Changing temperature (air, freshwater, marine water)
☑ Increased severity of extreme weather events
☑ Other chronic physical driver, please specify **:**Hurricane-prone areas

Policy
☑ Carbon pricing mechanisms
☑ Changes to national legislation
☑ Other policy, please specify **:**Introduction of regulatory standards

Market
☑ Other market, please specify **:**Impact of climate-related events like droughts and floods on fertilizer markets and Mosaic's financial performance.

Reputation
☑ Negative press coverage related to support of projects or activities with negative impacts on the environment (e.g. GHG emissions, deforestation & conversion, water stress)
☑ Stigmatization of sector

Technology
☑ Other technology, please specify **:**Regulatory changes represent a risk to Mosaic in form a potential costs of equipment upgrades or regulatory changes.

Liability
☑ Exposure to litigation

(2.2.2.14) Partners and stakeholders considered

Select all that apply
☑ NGOs
☑ Regulators

☑ Customers
☑ Employees
☑ Investors
☑ Suppliers
☑ Local communities
☑ Indigenous peoples

(2.2.2.15) Has this process changed since the previous reporting year?

Select from:
☑ No

(2.2.2.16) Further details of process

Mosaic incorporates climate-related risks and opportunities into its risk management process, which is conducted multiple times a year for short, medium, and long-term horizons. We identify climate change as an enterprise-level risk, with some risks and opportunities considered substantive, impacting operational expenses or revenue. These are included in our Enterprise Risk Management (ERM) program. The ERM process involves internal discussions with senior leadership, external intelligence, and regular discussions with subject matter experts. Risks are assessed quarterly based on factors such as probability, magnitude, speed of onset, resources required for management, and business impact. At an asset level, climate-related risks and opportunities are monitored regularly by teams at Mosaic using various methods. Certain climate-related risks, particularly physical risks that could impact our sites, are identified and scored using a risk register tool. Risk scores consider the severity of expected consequences, likelihood of exposure, and implemented controls. Annual incentive compensation is tied to risk reduction. We recently initiated a companywide climate risk assessment and scenario analysis exercise to identify transition and physical risks to our sites and assess potential impacts on our operations. The results will help us define, communicate, and prioritize our responses to identified risks. In response to risks and opportunities, we make decisions based on the results of the risk assessment process and scenario analysis. Our decisions have primarily centered on mitigation and acceptance activities. For example, we mitigate physical risks by strengthening our facilities against climate-related threats and reducing our greenhouse gas emissions footprint. We manage the threat of transition risks, such as increased pricing of GHG emissions, by emphasizing mitigation strategies. We are working to reduce our emissions footprint at our highest emitting sites to reduce our exposure to the global risk of carbon taxes. This approach applies to our treatment of other transition risks.
[Add row]

(2.2.7) Are the interconnections between environmental dependencies, impacts, risks and/or opportunities assessed?

(2.2.7.1) Interconnections between environmental dependencies, impacts, risks and/or opportunities assessed

Select from:
☑ Yes

(2.2.7.2) Description of how interconnections are assessed

Because water has widespread importance to Mosaic's diverse stakeholders (customers, employees, investors, communities, NGOs, regulators, suppliers, water utilities and other water users) and water-related issues are similarly diverse and context-based, Mosaic includes water-related risks and opportunities as part of a complex and multi-disciplinary companywide risk management process. Mosaic's process for identifying water-related risks occurs at a facility- and enterprise-level using tools such as enterprise risk management (ERM) meetings, internal company methods, databases, tools such as WRI Aqueduct, and external consultants. At the highest level, we identify water issues, namely water management, as an enterprise-level risk; thus, water-related risks and opportunities – some of which are considered substantive – are included in our Enterprise Risk Management (ERM) program biannually alongside other similarly pressing enterprise-level risks. Outcomes of risk management meetings shape our ongoing strategy and management actions related to water risk management. Methods we use in the ERM process include internal discussions with senior leadership about the risk landscape and tapping external intelligence, including regular discussions with trusted subject matter experts and consultancies, is another method we use to monitor the megatrend (long-term) landscape and assess its impact to our company at all stages of the value chain.
[Fixed row]

(2.3) Have you identified priority locations across your value chain?

(2.3.1) Identification of priority locations

Select from:
☑ Yes, we have identified priority locations

(2.3.2) Value chain stages where priority locations have been identified

Select all that apply
☑ Direct operations

(2.3.3) Types of priority locations identified

Sensitive locations
☑ Areas important for biodiversity
☑ Areas of high ecosystem integrity
☑ Areas of limited water availability, flooding, and/or poor quality of water

Locations with substantive dependencies, impacts, risks, and/or opportunities
☑ Locations with substantive dependencies, impacts, risks, and/or opportunities relating to water
☑ Locations with substantive dependencies, impacts, risks, and/or opportunities relating to biodiversity

(2.3.4) Description of process to identify priority locations

Because water has widespread importance to Mosaic's diverse stakeholders (customers, employees, investors, communities, NGOs, regulators, suppliers, water utilities and other water users) and water-related issues are similarly diverse and context-based, Mosaic includes water-related risks and opportunities as part of a complex and multi-disciplinary companywide risk management process. Mosaic's process for identifying water-related risks occurs at a facility- and enterprise-level using tools such as enterprise risk management (ERM) meetings, internal company methods, databases, tools such as WRI Aqueduct, and external consultants. At the highest level, we identify water issues, namely water management, as an enterprise-level risk; thus, water-related risks and opportunities – some of which are considered substantive – are included in our Enterprise Risk Management (ERM) program biannually alongside other similarly pressing enterprise-level risks. Outcomes of risk management meetings shape our ongoing strategy and management actions related to water risk management. Methods we use in the ERM process include internal discussions with senior leadership about the risk landscape and tapping external intelligence, including regular discussions with trusted subject matter experts and consultancies, is another method we use to monitor the megatrend (long-term) landscape and assess its impact to our company at all stages of the value chain. As for biodiversity, prior to the start of mining — or when extending or expanding a mine — permits are secured from local, regional, state and federal government agencies. This thorough environmental and biological assessment, followed by coordinated planning with agencies and approval process protects water, air, ecology, wildlife, transportation, safety, and other environmental, health, and public welfare considerations. We work with multiple parties to evaluate ecological resource preservation opportunities to integrate habitat connectivity regionally, and to avoid, minimize, and mitigate any harm to state- and federally protected plant and wildlife species found on mine properties. In our potash facilities located in Saskatchewan, Canada, Mosaic's evaluation of potential impacts to wildlife includes biological assessments of all projects. Since potash mining is underground, such impacts are minimal once a facility is in operation and the above-ground infrastructure is developed. Assessments include field surveys to identify rare species of plants, birds, mammals, reptiles and amphibians of special concern that may be impacted. Survey methods follow the recommendations of the provincial and federal agencies.

(2.3.5) Will you be disclosing a list/spatial map of priority locations?

Select from:

☑ No, we have a list/geospatial map of priority locations, but we will not be disclosing it

[Fixed row]

(2.4) How does your organization define substantive effects on your organization?

Risks

(2.4.1) Type of definition

Select all that apply

☑ Qualitative

☑ Quantitative

(2.4.2) Indicator used to define substantive effect

Select from:

☑ Revenue

(2.4.3) Change to indicator

Select from:

☑ Absolute increase

(2.4.5) Absolute increase/ decrease figure

200000000

(2.4.6) Metrics considered in definition

Select all that apply

☑ Frequency of effect occurring

☑ Time horizon over which the effect occurs

☑ Likelihood of effect occurring

☑ Other, please specify :Resources required and impact on business operations.

(2.4.7) Application of definition

We define "substantive impact" as an impact, financial or non-financial, that could hinder our ability to achieve our strategy, or one that threatens Mosaic's ability to sustain our business or achieve business objectives. More specifically, though our definition of substantive varies by timing, financial condition and situation, for the purpose of this report, a financial impact to operational expenses (as just one example) quantified at 160 million or more would be considered substantive. Similarly, for the purpose of this report, a greater than 200 million impact on revenue would be considered substantive, although it may not meet the companywide threshold for materiality. In the context of water-related risks, we consider risks across broad time horizons and assess other factors such as financial impact, likelihood, speed of onset impact on business and resources required to manage potential impacts. Regardless of the speed of onset (which ranges from little or no warning to over a year or more), if a risk is considered to have a major or severe impact on the results of our business, it would be considered substantive. Similarly, from a qualitative perspective, we would consider an impact substantive if it were an event a reasonable shareholder would consider when making an investment decision. Some potential impacts considered across direct operations and supply chain are revenue, operating costs, reduced efficiency or limited output and increased costs associated with energy, raw material or transportation costs. As an example of a potentially substantive impact in our supply chain, a widespread precipitation event in the Mississippi River basin could affect Mosaic's access to critical material inputs, like natural gas and sulfur supplies, resulting in a production interruption that has *a negative impact on our production. The results of such an interruption could be substantive. For CDP Water reporting purposes Mosaic focuses on operations in or in the vicinity of the Qu'Appelle, Pecos, La Plata, Mississippi, Alafia, and Peace River basins.*

Opportunities

(2.4.1) Type of definition

Select all that apply

☑ Qualitative

☑ Quantitative

(2.4.2) Indicator used to define substantive effect

Select from:

☑ Revenue

(2.4.3) Change to indicator

Select from:

☑ Absolute increase

(2.4.5) Absolute increase/ decrease figure

200000000

(2.4.6) Metrics considered in definition

Select all that apply

☑ Frequency of effect occurring

☑ Time horizon over which the effect occurs

☑ Likelihood of effect occurring

☑ Other, please specify :Resources required and impact on business operations.

(2.4.7) Application of definition

We define "substantive impact" as an impact, financial or non-financial, that could hinder our ability to achieve our strategy, or one that threatens Mosaic's ability to sustain our business or achieve business objectives. More specifically, though our definition of substantive varies by timing, financial condition and situation, for the purpose of this report, a financial impact to operational expenses (as just one example) quantified at 160 million or more would be considered substantive. Similarly, for the purpose of this report, a greater than 200 million impact on revenue would be considered substantive, although it may not meet the companywide threshold for materiality. In the context of water-related risks, we consider risks across broad time horizons and assess other factors such as financial impact, likelihood, speed of onset impact on business and resources required to manage potential impacts. Regardless of the speed of onset (which ranges from little or no warning to over a year or more), if a risk is considered to have a major or severe impact on the results of our business, it would be considered substantive. Similarly, from a qualitative perspective, we would consider an impact substantive if it were an event a reasonable shareholder would consider when making an investment decision. Some potential impacts considered across direct operations and supply chain are revenue, operating costs, reduced efficiency or limited output and increased costs associated with energy, raw material or transportation costs. As an example of a potentially substantive impact in our supply chain, a widespread precipitation event in the Mississippi River basin could affect Mosaic's access to critical material inputs, like natural gas and sulfur supplies, resulting in a production interruption that has a negative impact on our production. The results of such an interruption could be substantive. For CDP Water reporting purposes Mosaic focuses on operations in or in the vicinity of the Qu'Appelle, Pecos, La Plata, Mississippi, Alafia, and Peace River basins.

Risks

(2.4.1) Type of definition

Select all that apply

☑ Qualitative

☑ Quantitative

(2.4.2) Indicator used to define substantive effect

Select from:

☑ Revenue

(2.4.3) Change to indicator

Select from:

☑ Absolute decrease

(2.4.5) Absolute increase/ decrease figure

200000000

(2.4.6) Metrics considered in definition

Select all that apply

☑ Frequency of effect occurring

☑ Time horizon over which the effect occurs

☑ Likelihood of effect occurring

☑ Other, please specify :Resources required and impact on business operations.

(2.4.7) Application of definition

We define "substantive impact" as an impact, financial or non-financial, that could hinder our ability to achieve our strategy, or one that threatens Mosaic's ability to sustain our business or achieve business objectives. More specifically, though our definition of substantive varies by timing, financial condition and situation, for the purpose of this report, a financial impact to operational expenses (as just one example) quantified at 160 million or more would be considered substantive. Similarly, for the purpose of this report, a greater than 200 million impact on revenue would be considered substantive, although it may not meet the companywide threshold for materiality. In the context of water-related risks, we consider risks across broad time horizons and assess other factors such as financial impact, likelihood, speed of onset impact on business and resources required to manage potential impacts. Regardless of the speed of onset (which ranges from little or no warning to over a year or more), if a risk is considered to have a major or severe impact on the results of our business, it would be considered substantive. Similarly, from a qualitative perspective, we would consider an impact substantive if it were an event a reasonable shareholder would consider when making an investment decision. Some potential impacts considered across direct operations and supply chain are revenue, operating costs, reduced efficiency or limited output and increased costs associated with energy, raw material or transportation costs. As an example of a potentially substantive impact in our supply chain, a widespread precipitation event in the Mississippi River basin could affect Mosaic's access to critical material inputs, like natural gas and sulfur supplies, resulting in a production interruption that has a negative impact on our production. The results of such an interruption could be substantive. For CDP Water reporting purposes Mosaic focuses on operations in or in the vicinity of the Qu'Appelle, Pecos, La Plata, Mississippi, Alafia, and Peace River basins.

Opportunities

(2.4.1) Type of definition

Select all that apply

☑ Qualitative

☑ Quantitative

(2.4.2) Indicator used to define substantive effect

Select from:

☑ Revenue

(2.4.3) Change to indicator

Select from:

☑ Absolute decrease

(2.4.5) Absolute increase/ decrease figure

200000000

(2.4.6) Metrics considered in definition

Select all that apply

☑ Frequency of effect occurring

☑ Time horizon over which the effect occurs

☑ Likelihood of effect occurring

☑ Other, please specify :Resources required and impact on business operations.

(2.4.7) Application of definition

We define "substantive impact" as an impact, financial or non-financial, that could hinder our ability to achieve our strategy, or one that threatens Mosaic's ability to sustain our business or achieve business objectives. More specifically, though our definition of substantive varies by timing, financial condition and situation, for the purpose of this report, a financial impact to operational expenses (as just one example) quantified at 160 million or more would be considered substantive. Similarly, for the purpose of this report, a greater than 200 million impact on revenue would be considered substantive, although it may not meet the companywide threshold for materiality. In the context of water-related risks, we consider risks across broad time horizons and assess other factors such as financial impact, likelihood, speed of onset impact on business and resources required to manage potential impacts. Regardless of the speed of onset (which ranges from little or no warning to over a year or more), if a risk is considered to have a major or severe impact on the results of our business, it would be considered substantive. Similarly, from a qualitative perspective, we would consider an impact substantive if it were an event a reasonable shareholder would consider when making an investment decision. Some potential impacts considered across direct operations and supply chain are revenue, operating costs, reduced efficiency or limited output and increased costs associated with energy, raw material or transportation costs. As an example of a potentially substantive impact in our supply chain, a widespread precipitation event in the Mississippi River basin could affect Mosaic's access to critical material inputs, like natural gas and sulfur supplies, resulting in a production interruption that has a negative impact on our production. The results of such an interruption could be substantive. For CDP Water reporting purposes Mosaic focuses on operations in or in the vicinity of the Qu'Appelle, Pecos, La Plata, Mississippi, Alafia, and Peace River basins.

[Add row]

(2.5) Does your organization identify and classify potential water pollutants associated with its activities that could have a detrimental impact on water ecosystems or human health?

(2.5.1) Identification and classification of potential water pollutants

Select from:

☑ Yes, we identify and classify our potential water pollutants

(2.5.2) How potential water pollutants are identified and classified

Our company mines, produces and distributes potash and phosphate products each year. Mosaic's Environmental Health and Safety Management System, aligned to ISO 14001, OHSAS 18001 and ANSI-Z10, integrates internationally regarded best management practices into our operations while affirming our ongoing safe and environmentally responsible performance. These standards extend to water stewardship and pollution control. Mosaic's North America Potash operations maintain a zero-discharge approach. In our Phosphate operations, discharges to nearby water bodies are highly regulated through permits, which require demonstration of compliance with effluent limitations. The permit limitations are based on the water quality standards that protect the designated uses of the receiving water body. Discharges are monitored through methods such as online electronic metering, totalizer readings and hand sample testing; analysed regularly by Mosaic for constituents such as phosphorous, nitrogen and fluoride, and reported to the appropriate regulatory agencies to demonstrate compliance with these permit limitations. At many facilities, samples are collected continuously for pH monitoring via electronic means, and daily, monthly, quarterly, or annually, depending on facility-specific permit conditions. In the United States, permits are issued, and parameters and concentrations limits set by National Pollutant Discharge Elimination System (NPDES).
[Fixed row]

(2.5.1) Describe how your organization minimizes the adverse impacts of potential water pollutants on water ecosystems or human health associated with your activities.

Row 1

(2.5.1.1) Water pollutant category

Select from:

☑ Nitrates

(2.5.1.2) Description of water pollutant and potential impacts

Fertilizer is a vital agricultural input and investment, one that requires agronomic knowledge and careful planning. Crop nutrients like those Mosaic manufactures can run off farmland into waterways contributing to impaired water quality. While Mosaic is not a nitrogen fertilizer company, our phosphate products are ammoniated with a 10-13 percent formulation of nitrogen. These products when applied in the fall are susceptible to various nitrogen loss pathways in soils through subsurface leaching, surface runoff, volatilization (emissions), and through mineralization (nitrogen changing forms that stays in the soil for spring crop uptake). If applied in the spring, loss pathways or nitrogen changing forms in the soil is reduced significantly compared to fall application. Mosaic supports reduction of nitrogen losses from our products through facilitating adoption and implementation of 4R practices and in our research and development of new technologies to protect the nitrogen component and through technologies supporting increases in nutrient use efficiencies. These additional technologies include nitrogen stabilizers, inhibitors, bio stimulants and biologicals.

(2.5.1.3) Value chain stage

Select all that apply

☑ Direct operations

☑ Downstream value chain

(2.5.1.4) Actions and procedures to minimize adverse impacts

Select all that apply

☑ Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience

☑ Beyond compliance with regulatory requirements

☑ Provision of best practice instructions on product use

(2.5.1.5) Please explain

Mosaic helped empower farmers to reduce the impact of crop nutrients on the environment by facilitating the implementation of 4R Nutrient Stewardship on more than 15.7 million acres in North America by 2023. We are making good progress toward our target set in 2020 of reaching 25 million acres of North American farmland under 4R Nutrient Stewardship certification by 2025- an important contribution to healthy water quality in critical watersheds. Mosaic invests heavily in 4R Nutrient Steward programs, having invested cumulatively more than 13 million over the last 10 years. In our direct operations, we manage impacts of potential water pollutants, like nitrogen, by managing water that falls within the active, operational footprint at our mining and production facilities. Water is actively managed; reused if possible; eventually treated when necessary; and discharged through permitted outfalls. The Mosaic Company is a founding partner of the Tampa Bay Environmental Restoration Fund, which is managed by the Tampa Bay Estuary Program and Restore America's Estuaries. Success of these partnerships is measured, in part, by nitrogen loadings in the bay which are a barometer of the bay’s health. As per the Tampa Bay Estuary Program, a decreasing long-term trend of hydrologically normalized phosphorous and nitrogen loadings to the Bay over time has been observed (to 2021 data).

Row 3

(2.5.1.1) Water pollutant category

Select from:

☑ Phosphates

(2.5.1.2) Description of water pollutant and potential impacts

Fertilizer is a vital agricultural input and investment, one that requires agronomic knowledge and careful planning. Crop nutrients like those Mosaic manufactures can run off farmland into waterways contributing to impaired water quality. Phosphorus losses from agricultural fields on average in the U.S. is approximately 2 pounds per acre, which is not affecting crops yields but contributes to aquatic ecosystem impairments that can fuel algal bloom formations. Under 4R Nutrient Stewardship practices such as variable rate technology applications, incorporation of phosphate products, moving from fall to spring, and reducing proximity of phosphate applications from rainfall events has proven through university research to reduce phosphorus losses from 2 pounds per acre to 1 pound per acre or less. This reduction is reducing phosphorous loads to priority watersheds and improving aquatic ecosystems. Mosaic is working to quantify the implementation of these practices through funding with research partners or through modeling and water quality monitoring in key regions: Ohio, Illinois, Louisiana, Arkansas, Mississippi, Missouri, Iowa, Michigan, Florida, Indiana, Minnesota, North Dakota, and Ontario.

(2.5.1.3) Value chain stage

Select all that apply

☑ Direct operations

☑ Downstream value chain

(2.5.1.4) Actions and procedures to minimize adverse impacts

Select all that apply

☑ Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience

☑ Beyond compliance with regulatory requirements

☑ Provision of best practice instructions on product use

(2.5.1.5) Please explain

Mosaic helped empower farmers to reduce the impact of crop nutrients on the environment by facilitating the implementation of 4R Nutrient Stewardship on more than 15.7 million acres in North America by 2023. We are making good progress toward our target set in 2020 of reaching 25 million acres of North American farmland

under 4R Nutrient Stewardship certification by 2025- an important contribution to healthy water quality in critical watersheds. Mosaic invests heavily in 4R Nutrient Steward programs, having invested cumulatively more than 13 million over the last 10 years. In our direct operations, we manage impacts of potential water pollutants, like phosphates, by managing water that falls within the active, operational footprint at our mining and production facilities. Water is actively managed; reused if possible; eventually treated when necessary; and discharged through permitted outfalls. The Mosaic Company is a founding partner of the Tampa Bay Environmental Restoration Fund, which is managed by the Tampa Bay Estuary Program and Restore America's Estuaries. Success of these partnerships is measured, in part, by phosphates loadings in the bay which are a barometer of the bay's health. As per the Tampa Bay Estuary Program, a decreasing long-term trend of hydrologically normalized phosphorous and nitrogen loadings to the Bay over time has been observed (to 2021 data).
[Add row]

C3. Disclosure of risks and opportunities

(3.1) Have you identified any environmental risks which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future?

Climate change

(3.1.1) Environmental risks identified

Select from:
☑ Yes, both in direct operations and upstream/downstream value chain

Water

(3.1.1) Environmental risks identified

Select from:
☑ Yes, both in direct operations and upstream/downstream value chain

Plastics

(3.1.1) Environmental risks identified

Select from:
☑ No

(3.1.2) Primary reason why your organization does not consider itself to have environmental risks in your direct operations and/or upstream/downstream value chain

Select from:
☑ Not an immediate strategic priority

(3.1.3) Please explain

Our organization has not identified environmental material risks for plastics because we do not produce or commercialize plastics as part of our operations. As a potash and phosphate mining and fertilizer manufacturing company, our core activities involve the extraction and processing of mineral resources, which do not incorporate plastics in a significant manner. In addition, to the extent possible, bulk transport is used to minimize the need for extensive packaging — and therefore packaging waste — throughout the supply chain. After careful consideration, we judged the mapping of plastics to be less material to our operations (comparatively). Our focus remains on the materials and processes directly related to our industry, promoting our environmental and sustainability efforts to be concentrated where they will have the most impact.
[Fixed row]

(3.1.1) Provide details of the environmental risks identified which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future.

Climate change

(3.1.1.1) Risk identifier

Select from:
☑ Risk1

(3.1.1.3) Risk types and primary environmental risk driver

Policy
☑ Carbon pricing mechanisms

(3.1.1.4) Value chain stage where the risk occurs

Select from:
☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Canada

(3.1.1.9) Organization-specific description of risk

Canada's Nationally Determined Contribution (NDC) to the Paris Agreement targets a 40-45% reduction in greenhouse gas emissions below 2005 levels by 2030. In 2020, the federal government released an updated carbon pricing plan where the price of carbon increases 15/tonne/year reaching 170/tonne by 2030. As of January 1, 2023, the price of carbon is 65 per tonne CAD. A revised provincial OBPS program was submitted by Saskatchewan to the federal government in 2022, which was subsequently approved in November 2022. Indirect carbon tax costs are passed to Mosaic. As the Paris Agreement implementation progresses, stricter laws may be enacted to achieve Canada's NDC goals. We continue to monitor related legislative developments. Our Saskatchewan potash mines represent about 44% of Mosaic's total finished crop nutrient production tonnes and approximately 26% of total companywide emissions in 2023. In the same year, we paid about 480,000 USD in direct emissions carbon tax to the Ministry of Environment. One feature of the comprehensive tax on carbon emissions is a carbon levy charge from our electricity provider, which translates to increased indirect costs to our company (approximately 4.4 million USD in 2023). Costs associated with the carbon levy are passed on from Mosaic's rail carriers in Canada, resulting in additional indirect costs to our company (approximately 520,000 USD in 2023).

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Increased indirect [operating] costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Virtually certain

(3.1.1.14) Magnitude

Select from:

☑ Medium-low

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

The federal regulatory requirement of a carbon tax on GHG emissions from electricity in Saskatchewan has had an impact on Mosaic because our operations there rely on electricity from the local grid as a source of power. In 2023, we paid more than 4.4 million USD in carbon levy funds to our electricity provider, translating to an increase in indirect costs to our company. Costs associated with the carbon levies are passed on from Mosaic's rail carriers in Canada, resulting in additional indirect costs to our company (approximately 520,000 USD in 2023). The levies were in effect for all of 2023. Canadian potash producers are already subject to higher tax rates, higher shipping costs and higher electricity costs than the world's other major potash producers. Implementation of a carbon tax in Canada places an additional economic hardship on Canadian potash producers, reducing their competitiveness and effectively suppressing the marketability of the world's most environmentally friendly potash, while adding to the advantages already enjoyed by the major overseas potash producers.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

4920000

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

4920000

(3.1.1.25) Explanation of financial effect figure

The federal regulatory requirement of a carbon tax on GHG emissions from electricity in Saskatchewan has had an impact on Mosaic because our operations there rely on electricity from the local grid as a source of power. In 2023, we paid more than 4.4 million USD in carbon levy funds to our electricity provider, translating to an increase in indirect costs to our company. Costs associated with the carbon levies are passed on from Mosaic's rail carriers in Canada, resulting in additional indirect costs to our company (approximately 520,000 USD in 2023). The levies were in effect for all of 2023. Canadian potash producers are already subject to higher tax rates, higher shipping costs and higher electricity costs than the world's other major potash producers. Implementation of a carbon tax in Canada places an additional economic hardship on Canadian potash producers, reducing their competitiveness and effectively suppressing the marketability of the world's most environmentally friendly potash, while adding to the advantages already enjoyed by the major overseas potash producers.

(3.1.1.26) Primary response to risk

Compliance, monitoring and targets

☑ Establish site-specific targets

(3.1.1.27) Cost of response to risk

800000

(3.1.1.28) Explanation of cost calculation

The 800,000 of response cost includes the conventional lightning replacement project and the IMII membership fees. In 2023, we reduced scope 2 emissions by 14,000 tonnes CO2e/year across four Saskatchewan potash facilities with the replacement of conventional lightning with LED fixtures. This project cost about 700,000 and completion was immediate (less than 1 year), while our broader strategy for reducing our Scope 2 GHG emissions is ongoing and long-term (greater than 5 years). We are also responding to this risk by funding research into new technologies for sustainable, secure, reliable, and cost-effective energy to support our industry's growth. In 2023, we invested approximately 100,000 in membership of International Minerals Innovation Institute (IMII) to fund a variety of projects including clean energy technologies and carbon sequestration studies in Saskatchewan.

(3.1.1.29) Description of response

As noted in the explanation of cost calculation, we are responding to the risk of carbon pricing mechanisms, in part, by executing a strategy to reduce our emissions. At our Canadian Potash sites, where our electricity consumption is subject to carbon levy paid to the local electricity provider, we are implementing initiatives to reduce our Scope 2 emissions. We are also responding to this risk by engaging association and funding research that investigates new technologies that can deliver environmentally sustainable, secure and reliable, and cost-competitive energy that supports economic development and growth for our industry.

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk1

(3.1.1.3) Risk types and primary environmental risk driver

Chronic physical

☑ Declining water quality

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Canada

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Other, please specify :Qu'Appelle

(3.1.1.9) Organization-specific description of risk

Due to increased brine inflows, in June 2021, the Company made the decision to accelerate the timing of the shutdown of our K1 and K2 mine shafts at our Esterhazy, Saskatchewan potash mine. Closing the K1 and K2 shafts were key pieces of the transition to the K3 shaft. In 2021, we had pre-tax costs of 158.1 million related to the permanent closure of these facilities. These costs consisted of 109.9 million related to the write-off of fixed assets, 37.1 million related to AROs, and 11.1 million related to inventory and other reserves. These costs are considered moderately substantive. In 2023 we did not incur brine inflow management expenses, compared to 46 million in brine inflow management expenses, including depreciation on brine assets in 2021. The exclusion of brine inflow cost in 2023 is due to the accelerated K1 and K2 mine closure actions in prior years.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Closure of operations

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Long-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ About as likely as not

(3.1.1.14) Magnitude

Select from:

☑ Medium-high

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Due to increased brine inflows, in June, 2021, the Company made the decision to accelerate the timing of the shutdown of our K1 and K2 mine shafts at our Esterhazy, Saskatchewan potash mine. Closing the K1 and K2 shafts were key pieces of the transition to the K3 shaft. In 2021, we had pre-tax costs of 158.1 million related to the permanent closure of these facilities. These costs consisted of 109.9 million related to the write-off of fixed assets, 37.1 million related to AROs, and 11.1 million related to inventory and other reserves. These costs are considered moderately substantive. In 2023 we did not incur brine inflow management expenses, compared to 46 million in brine inflow management expenses, including depreciation on brine assets in 2021. The exclusion of brine inflow cost in 2023 is due to the accelerated K1 and K2 mine closure actions in prior years.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.23) Anticipated financial effect figure in the long-term – minimum (currency)

158100000

(3.1.1.24) Anticipated financial effect figure in the long-term – maximum (currency)

158100000

(3.1.1.25) Explanation of financial effect figure

Due to increased brine inflows, in June, 2021, the Company made the decision to accelerate the timing of the shutdown of our K1 and K2 mine shafts at our Esterhazy, Saskatchewan potash mine. Closing the K1 and K2 shafts were key pieces of the transition to the K3 shaft. In 2021, we had pre-tax costs of 158.1 million related to the permanent closure of these facilities. These costs consisted of 109.9 million related to the write-off of fixed assets, 37.1 million related to AROs, and

11.1 million related to inventory and other reserves. These costs are considered moderately substantive. In 2023 we did not incur brine inflow management expenses, compared to 46 million in brine inflow management expenses, including depreciation on brine assets in 2021. The exclusion of brine inflow cost in 2023 is due to the accelerated K1 and K2 mine closure actions in prior years.

(3.1.1.26) Primary response to risk

Infrastructure, technology and spending

☑ Other infrastructure, technology and spending, please specify **:**Displace production to another site.

(3.1.1.27) Cost of response to risk

10000000

(3.1.1.28) Explanation of cost calculation

This 10 million cost is approximate the cost of start-up, made up of OpEx (labor, materials, power, etc) and CapEx (shaft and surface equipment at a previously idled site to offset a portion of the production lost at K1 and K2).

(3.1.1.29) Description of response

In response to increased brine inflow at our Esterhazy K1 and K2 facilities in 2021, we resumed production at a previously idled site to offset a portion of the production lost at K1 and K2. The approximate costs of start-up, made up of OpEx (labor, materials, power, etc.) and CapEx (shaft and surface equipment) was approximately 10 million. We undertook these start-up activities in direct response to the increased brine inflow at K1 and K2. Closing the K1 and K2 shafts were key pieces of the transition to the K3 shaft, but the timeline for the closure was accelerated by approximately nine months as a result of the increased brine inflows. In 2021, we had pre-tax costs of 158.1 million related to the permanent closure of these facilities which is provided as the total financial impact. Note, Mosaic personnel refer to this solution as "brine" but we selected "Declining Water Quality" because it was the choice that matched the impact driver most closely. This example is still pertinent in this reporting year.

Climate change

(3.1.1.1) Risk identifier

Select from:

☑ Risk2

(3.1.1.3) Risk types and primary environmental risk driver

Policy

☑ Carbon pricing mechanisms

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Brazil

☑ Canada

☑ Paraguay

☑ Peru

☑ United States of America

(3.1.1.9) Organization-specific description of risk

Mosaic is subject to environmental regulations (some of which are driven by climate change) that could adversely affect our business, financial condition and results of operations, and the results could be material to us. There are various initiatives under consideration in the United States, Canada and internationally that, if adopted, 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. In addition to the carbon price already established in Canada, which affects our three Canadian potash mines in Saskatchewan, we are anticipating the potential implementation of a price on carbon in the United States and Brazil, jurisdictions which, combined, account for approximately 65% of our companywide emissions. We are monitoring developments relating to the anticipated proposed legislation, as well as the potential future effect on our operating activities, energy, raw material and transportation costs, results of operations, liquidity or capital resources.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Increased indirect [operating] costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Likely

(3.1.1.14) Magnitude

Select from:

☑ High

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Any agreement, regulation or program that limits or taxes direct and indirect GHG emissions from our facilities could increase operating costs directly and through suppliers. As of the date of this report, we are still monitoring regulatory developments and modeling their potential financial impacts on our business, so the figures we are providing at this stage are gross and simplified estimates. If we apply the International Energy Agency's (IEA) recommended price of 63 per tonne of CO2e generated to the scope 1 and scope 2 emissions from our U.S. facilities (roughly 2.6 million tonnes CO2e/year), the impact would be greater than 164 million. In Brazil – where our emissions are approximately 600,000 tonnes CO2e per year– assuming the same IEA price on carbon, the impact to us would be approximately 40 million. We are citing the sum of these estimates for the U.S. and Brazil (164 million plus 40 million equals 204 million) as our potential impact figure for this particular risk.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

204000000

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

204000000

(3.1.1.25) Explanation of financial effect figure

Any agreement, regulation or program that limits or taxes direct and indirect GHG emissions from our facilities could increase operating costs directly and through suppliers. As of the date of this report, we are still monitoring regulatory developments and modeling their potential financial impacts on our business, so the figures we are providing at this stage are gross and simplified estimates. If we apply the International Energy Agency's (IEA) recommended price of 63 per tonne of CO2e generated to the scope 1 and scope 2 emissions from our U.S. facilities (roughly 2.6 million tonnes CO2e/year), the impact would be greater than 164 million. In Brazil – where our emissions are approximately 600,000 tonnes CO2e per year– assuming the same IEA price on carbon, the impact to us would be approximately 40 million. We are citing the sum of these estimates for the U.S. and Brazil (164 million plus 40 million equals 204 million) as our potential impact figure for this particular risk.

(3.1.1.26) Primary response to risk

Infrastructure, technology and spending

☑ Other infrastructure, technology and spending, please specify :Application of process optimization technologies to reduce emissions.

(3.1.1.27) Cost of response to risk

3500000

(3.1.1.28) Explanation of cost calculation

The 3.5 million cited as part of this risk was derived from actual costs (equipment and engineering/contractor support) associated with specific projects completed in 2021 (still relevant for 2023 reporting period).

(3.1.1.29) Description of response

Broadly, Mosaic proactively emphasizes energy efficiency in our operations as one way to manage or mitigate the potential risks of climate-related regulatory changes and resulting potential changes in technology requirements. Naturally, the less we emit, the less we are likely to be impacted by carbon pricing mechanisms; we also recognize the significant operating, financial and reputational efficiencies we stand to achieve by reducing emissions. As a specific example of our management efforts, our business in Brazil undertook projects to optimize processes, replace fuels and upgrade equipment, all as part of a strategy to reduce GHG emissions and improve efficiency of operations. One project in particular, which occurred at one of our phosphate mine sites in the state of Minas Gerais that produced approximately 350,000 tonnes of finished product in 2023, replaced heavy oil with vegetable oil. The result of this projects was reduced fuel use and *emissions savings of approximately 12,000 tonnes CO2e. The costs for this initiative totaled approximately 3,500,000 and we did not realize any annual savings as a result of having introduced the vegetable oil to the process. There are other projects and approaches under consideration, costs for which vary drastically.*

Climate change

(3.1.1.1) Risk identifier

Select from:

☑ Risk3

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical

☑ Other acute physical risk, please specify **:**Increased severity and frequency of extreme weather events such as cyclones and floods.

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ United States of America

(3.1.1.9) Organization-specific description of risk

The trend of increased floods, windstorms and hurricanes as a result of climate change could impact Mosaic's business due to the location of our sites. Mosaic has 8 billion in physical assets in hurricane-prone areas of Florida and Louisiana. Our insurance deductible for a covered named windstorm event is at least 100 million per occurrence for production facilities in North America. Despite our facilities being built to withstand storms, increased hurricane activity or a severe storm could result in physical damage or business interruption and force a change in design standards for buildings, equipment, or containment. This could result in increased capital costs or costs per tonne of product. The US hurricane season runs from June 1 to November 30. For instance, Hurricane Ida in 2021 caused damage to two of our Louisiana sites, resulting in power loss for over 20 days and property damage costs of approximately 125 million (exceeding our deductible). In 2022, Category 5 Hurricane Ian impacted our Florida facilities, causing downtime, deferred purchases, and delayed shipments. The impact of this hurricane on our phosphate *operations resulted in costs of 39 million in 2022. The data from 2021 and 2022 remains relevant for this reporting cycle; our facilities did not suffer any direct hurricane impacts during the 2023 Atlantic hurricane season.*

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Increased indirect [operating] costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Virtually certain

(3.1.1.14) Magnitude

Select from:

☑ Medium

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Mosaic's insurance deductible for a named windstorm event is, at a minimum, 100 million per occurrence for mines and fertilizer production facilities in North America. Although our containments and facilities are built to withstand storms, additional sustained hurricane activity could force a change in design standards for buildings, equipment or containments. This could result in increased capital costs or costs per tonne of product. In the event of widespread damage as a result of a severe storm, we may face costs up to or exceeding our insurance deductible of 100 million (applied to named windstorm events). The deductible is stated as the lower threshold as this is the level at which Mosaic insurance coverage with amounts above covered. In 2021, Hurricane Ida caused damage to two of our sites in Louisiana, resulting in property damages that exceeded our deductible, costing Mosaic approximately 125 million (corresponding to the upper threshold for potential financial impact, note was based on lower deductible at the time). This figure represents costs associated with business interruption and property damage (electrical equipment and miscellaneous infrastructure, the roof on one site and significant damage to the warehouse at another site). We use this figure to demonstrate the potential financial impact of future losses. Hurricane Ida was the second-most damaging hurricane to make landfall in the US state of Louisiana on record, behind Hurricane Katrina in 2005. Hurricane Ida (2021) directly impacted our production facilities; hence it is used for the upper threshold. Production impact and idle and *plant costs are not included in this figure. In 2022, expenses related to costs of goods sold resulting from the impact of Hurricane Ian on our phosphate operations totaled 39 million. The data from 2021 and 2022 remains relevant for this reporting cycle; our facilities did not suffer any direct hurricane impacts during the 2023 hurricane season.*

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

100000000

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

125000000

(3.1.1.25) Explanation of financial effect figure

Mosaic's insurance deductible for a named windstorm event is, at a minimum, 100 million per occurrence for mines and fertilizer production facilities in North America. Although our containments and facilities are built to withstand storms, additional sustained hurricane activity could force a change in design standards for buildings, equipment or containments. This could result in increased capital costs or costs per tonne of product. In the event of widespread damage as a result of a severe storm, we may face costs up to or exceeding our insurance deductible of 100 million (applied to named windstorm events). The deductible is stated as the lower threshold as this is the level at which Mosaic insurance coverage with amounts above covered. In 2021, Hurricane Ida caused damage to two of our sites in Louisiana, resulting in property damages that exceeded our deductible, costing Mosaic approximately 125 million (corresponding to the upper threshold for potential financial impact, note was based on lower deductible at the time). This figure represents costs associated with business interruption and property damage (electrical equipment and miscellaneous infrastructure, the roof on one site and significant damage to the warehouse at another site). We use this figure to demonstrate the potential financial impact of future losses. Hurricane Ida was the second-most damaging hurricane to make landfall in the US state of Louisiana on record, behind Hurricane Katrina in 2005. Hurricane Ida (2021) directly impacted our production facilities; hence it is used for the upper threshold. Production impact and idle and plant costs are not included in this figure. In 2022, expenses related to costs of goods sold resulting from the impact of Hurricane Ian on our phosphate operations totaled 39 million. The data from 2021 and 2022 remains relevant for this reporting cycle; our facilities did not suffer any direct hurricane impacts during the 2023 Atlantic hurricane season.

(3.1.1.26) Primary response to risk

Policies and plans

☑ Other policies or plans, please specify **:**Develop hurricane preparedness procedures and guidelines

(3.1.1.27) Cost of response to risk

45000000

(3.1.1.28) Explanation of cost calculation

The cost of response of 45M is the rounded-up sum of property insurance premiums (approximately 42.1M/year) plus the expected costs of mitigation projects, like the construction of new wind enhancement projects in Florida (approximately 2M), and flood resistant doors at a concentrate site in Florida (approximately 70,000), plus specific site costs of hurricane preparedness (approximately 170,000 see below for explanation).

(3.1.1.29) Description of response

We manage potential climate change risks by focusing on hurricane preparedness at all facilities that are within the zone of risk. Preparedness procedures and guidelines were in place in 2021 when Hurricane Ida made landfall in Louisiana as a category 4 storm and caused damage to two of Mosaic's concentrates sites. Both sites lost power for over 20 days. The cost associated with generators at one site was approximately 170,000 and included rental of three generators and miscellaneous service and parts line items. Beyond site preparedness, and the practice of carrying ample global property insurance coverage to protect against property loss (premiums associated with which cost approximately 42.1M/year), part of our strategy to manage hurricane risk is to conduct ongoing property risk engineering assessments to mitigate risks associated with property damage and business interruption. The types of actions that result from these assessments include improving existing flood and emergency response plans and redesigning roof structures to meet or exceed wind uplift requirements. The approximate cost of installing fasteners to secure roof panels as a way to reduce or avoid damage from hurricanes is 150,000. This exact cost example is based on a project we completed in 2017 at one of our distribution sites and included the equipment and associated engineering/contractor support. As a result of installing these fasteners, the roof exceeded wind uplift requirements and thus, was theoretically less vulnerable to effects of hurricanes. Mosaic undertakes annually project to improve weather related risks wind improvements such as adding additional fasteners and installing flood rated doors in Motor Control Center (MCC). There were several new wind enhancement projects completed in Florida in 2023 with an investment of approximately 2M, such as flood resistant doors were installed on an MCC at a concentrate site in Florida to improve flood protections.

Climate change

(3.1.1.1) Risk identifier

Select from:

☑ Risk4

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical

☑ Drought

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Brazil

☑ Canada

☑ Paraguay

☑ Peru

☑ United States of America

(3.1.1.9) Organization-specific description of risk

Mosaic is dependent on freshwater in our mining and production processes. Changes in precipitation resulting in droughts or water shortages in our operating geographies across North and South America, which could limit our allocation of water, could ultimately 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. We are opting to flesh out an example related to limited production output for this specific risk.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Decreased revenues due to reduced production capacity

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Medium-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ About as likely as not

(3.1.1.14) Magnitude

Select from:

☑ Medium

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Mosaic's 2023 net sales totaled approximately 13.7 billion. A theoretical decrease in production output associated with a lack of critical water supplies that resulted in 1% lower sales companywide could translate to approximately 137 million less revenue based on 2023 performance.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.21) Anticipated financial effect figure in the medium-term – minimum (currency)

137000000

(3.1.1.22) Anticipated financial effect figure in the medium-term – maximum (currency)

137000000

(3.1.1.25) Explanation of financial effect figure

Mosaic's 2023 net sales totaled approximately 13.7 billion. A theoretical decrease in production output associated with a lack of critical water supplies that resulted in 1% lower sales companywide could translate to approximately 137 million less revenue based on 2023 performance.

(3.1.1.26) Primary response to risk

Infrastructure, technology and spending

☑ Adopt water efficiency, water reuse, recycling and conservation practices

(3.1.1.27) Cost of response to risk

6100000

(3.1.1.28) Explanation of cost calculation

The cost of response cited represents the sum of project costs for the Reverse Osmosis (RO) technology initiative used in a Florida facility and the water recycling initiative for use in the acid wash process in another Mosaic site in Florida (more details in the description of response).

(3.1.1.29) Description of response

We are committed to responsible water use. We manage the potential risk of extreme changes in precipitation patterns, more specifically drought, by recycling high percentages of the water used in our operations and by exploring the use of alternative water sources like reclaimed water, where possible. We have also invested in reverse osmosis (RO) technology, which reduces our reliance on freshwater resources. For example, as part of their larger water conservation efforts, Mosaic's Bartow facility uses reverse osmosis to produce more than 250 gallons per minute of treated water back for use at the facility's sulfuric acid plant, thereby reducing freshwater needs by the same amount. It cost approximately 6.1 million to run the reverse osmosis plant at our Bartow facility in 2023. These cost estimates represent contract services, production materials, rental of equipment, electricity and required repairs and supplies for the year. Another site in Florida introduced a method to reduce reliance on groundwater resources by recycling water for use in the acid wash (flotation) process, as quality parameters allow. The project cost approximately 20,000 and reduced water use by more than 250 million gallons/year. Figures represent the cost of installing a valve and piping to tap into the recycled water. Mosaic personnel (engineers and maintenance colleagues) completed the work so there were no incremental contractor costs associated with this initiative.

Climate change

(3.1.1.1) Risk identifier

Select from:

☑ Risk5

(3.1.1.3) Risk types and primary environmental risk driver

Chronic physical

☑ Changing precipitation patterns and types (rain, hail, snow/ice)

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Downstream value chain

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Brazil

☑ Canada

☑ United States of America

(3.1.1.9) Organization-specific description of risk

Potential climate change risks that contribute to adverse and increasingly severe weather conditions, including the impact of changes in rainfall patterns and projected increases in temperature, could have a negative impact on Mosaic in the form of decreased demand for our finished crop nutrient products. Even longer-term, changing precipitation and temperature patterns could make certain growing regions permanently less productive, thus affecting demand for Mosaic's core fertilizer products. As a specific example, some models project that climate change will contribute to a decline in yields in key growing regions in the United States, where approximately 34% of Mosaic's net sales originated in 2023 (please note, this estimate is for net sales from the United States in total and not a reference to a specific at-risk growing region).

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Decreased revenues due to reduced demand for products and services

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Long-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ About as likely as not

(3.1.1.14) Magnitude

Select from:

☑ Medium

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Mosaic's 2023 net sales totaled approximately 13.7 billion. A theoretical decrease in demand for our products that resulted in 1% lower sales companywide could translate to approximately 137 million less revenue based on 2023 performance.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.23) Anticipated financial effect figure in the long-term – minimum (currency)

137000000

(3.1.1.24) Anticipated financial effect figure in the long-term – maximum (currency)

137000000

(3.1.1.25) Explanation of financial effect figure

Mosaic's 2023 net sales totaled approximately 13.7 billion. A theoretical decrease in demand for our products that resulted in 1% lower sales companywide could translate to approximately 137 million less revenue based on 2023 performance.

(3.1.1.26) Primary response to risk

Infrastructure, technology and spending

☑ Increase investment in R&D

(3.1.1.27) Cost of response to risk

54400000

(3.1.1.28) Explanation of cost calculation

This 54.4 million cost refers to our total cumulative investment in R&D agreements, equity investments and venture capital investments to develop new agricultural solutions in the last four years.

(3.1.1.29) Description of response

Mosaic's market analysis team continually monitors climate and growing regions, forecasting for climate-related events like droughts, floods and severe weather events, to determine their potential impact on the markets, our production, and Mosaic's overall financial performance. As another strategy to manage this risk, we are investing in research and product development and partnership opportunities to study and maximize the performance of Mosaic's fertilizer product portfolio in diverse, changing and stressful soil and climatic environments. For example, Mosaic's agronomic research program focuses on methods to build resilient soils with soil health, 4R nutrient stewardship and balanced crop nutrition initiatives. Our data from lab, greenhouse, and field research consistently demonstrates that healthy soils achieve enhanced productivity and profitability, especially in climate-induced stressful growing conditions. In 2023 we conducted approximately 2,300 small plot trials in Argentina, Brazil, Chile, China, Canada, India, Latin America (Mexico to Peru), Turkey and the United States. These activities cost approximately 3 million in 2023 and the same in 2022. In 2021 we announced a new agreement (bringing the total to three) to develop and launch agricultural solutions, including a nutrient efficiency product and a nitrogen-fixing microbial product, that contribute to soil health in diverse applications and have positive environmental benefits. In the last four years (including 2023) our total cumulative invested approximately 54.4 million in R&D agreements, equity investments and venture capital investments progressing this work to develop new agricultural solutions.

Climate change

(3.1.1.1) Risk identifier

Select from:

☑ Risk6

(3.1.1.3) Risk types and primary environmental risk driver

Market

☑ Other market risk, please specify :Decreased supply of key raw materials.

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Upstream value chain

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Brazil

☑ Canada

☑ Paraguay

☑ Peru

☑ United States of America

(3.1.1.9) Organization-specific description of risk

Energy companies are beginning to transition away from oil to other forms of low-carbon energy. As a result, reduced oil refinery operating rates in the U.S. could result in decreased availability of molten sulfur, which could increase costs of sulfur procurement or decrease availability of sulfur, an essential raw material input for Mosaic's phosphate fertilizer production operations. While we have not yet become subject to such results in the sulfur procurement markets due to the transition away from oil, exceptionally cold weather did result in refinery closures in 2020 and 2021, which affected sulfur supplies in 2021 and constrained Mosaic's production of finished crop nutrient products in the first half of the year. Using these 2021 refinery closures as an example, we can project that if it becomes necessary to procure sulfur at higher costs, and if we are unable to pass those costs on in our product prices, or if we are unable to procure sulfur at volumes necessary for our operations, such events could have a material adverse effect on our phosphate business, and/or our financial condition or operating results. This example is still pertinent in this reporting year. For context, in 2023 in United States we used approximately 1.2 million long tons of sulfur to produce crop nutrient products.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Decreased revenues due to reduced production capacity

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Medium-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ About as likely as not

(3.1.1.14) Magnitude

Select from:

☑ Medium

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

In early 2021 we realized higher raw material costs, primarily for sulfur, because of oil refinery closures in late 2020 and early 2021 due to lower fuel demand and extreme cold weather in the gulf region in the first quarter of 2021. Drawing from the experience from these events (which contributed to an approximately 250,000 tonnes reduction of production in Q1 2021) to demonstrate the potential impact of low sulfur supplies in the future, results in a hypothetical impact of approximately 20 million. We arrived at this figure by assuming a 250,000-tonne reduction in production multiplied by the Q1 2021 average finished product selling price of 477/tonne and applying a gross margin of 17%. This cost analysis is still relevant for 2023.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.21) Anticipated financial effect figure in the medium-term – minimum (currency)

20000000

(3.1.1.22) Anticipated financial effect figure in the medium-term – maximum (currency)

20000000

(3.1.1.25) Explanation of financial effect figure

In early 2021 we realized higher raw material costs, primarily for sulfur, because of oil refinery closures in late 2020 and early 2021 due to lower fuel demand and extreme cold weather in the gulf region in the first quarter of 2021. Drawing from the experience from these events (which contributed to an approximately 250,000 *tonnes reduction of production in Q1 2021) to demonstrate the potential impact of low sulfur supplies in the future, results in a hypothetical impact of approximately 20 million. We arrived at this figure by assuming a 250,000-tonne reduction in production multiplied by the Q1 2021 average finished product selling price of 477/tonne and applying a gross margin of 17%. This cost analysis is still relevant for 2023.*

(3.1.1.26) Primary response to risk

Diversification

☑ Increase supplier diversification

(3.1.1.27) Cost of response to risk

10000000

(3.1.1.28) Explanation of cost calculation

The cost of 10 million refers to our operational cost of the sulfur melter in 2021 (still relevant in 2023) which represents utilities, process chemicals, people costs (payroll), contract labor, maintenance, repair costs and other costs. It excludes depreciation.

(3.1.1.29) Description of response

Deployment of a diverse supply chain strategy is one way we mitigate the potential risk of high raw material costs and disruptions in raw materials supply. Specifically, dedicated sulfur transportation barges and tugs and a 100% ownership interest in a company that has sulfur transportation and terminaling businesses in the Gulf of Mexico (2022), position Mosaic to source an adequate, flexible and cost-effective supply of sulfur, our third key input, to our Florida and Louisiana phosphate production facilities. This example is still pertinent for the reporting year. Further, we believe that our investments in sulfur logistical and melting assets continue to afford us a competitive advantage compared to other producers in cost and access to sulfur in that we can supplement our need for molten sulfur with prilled sulfur.

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk2

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical

☑ Drought

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Brazil

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Other, please specify **:**La Plata

(3.1.1.9) Organization-specific description of risk

Drought conditions impacted South America in 2021 and early 2022 threatened the reliability of local hydropower supply in Brazil, where we have key operating and market presences. As a result, the national grid resorted to incrementally more power generation from fossil fuels, which had an adverse impact on Mosaic's scope 2 emissions for the Brazil geography. More specifically, scope 2 emissions increased by approximately 50%, which represents a substantive impact, despite actions and investments by Mosaic sites to perform toward stated scope 1 and scope 2 emissions targets, as such, this impact was considered substantive for the site. This example is still pertinent for the reporting year.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Increased indirect [operating] costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:
☑ Likely

(3.1.1.14) Magnitude

Select from:
☑ Medium

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

In 2023, our Brazil operations produced approximately 232,000 MWh of electricity from waste heat recovered at our sulfuric acid plants and utilized at our sites. Theoretically, for the purpose of comparison, this represents approximately 37 million USD of electricity costs saved per year (assuming the average electricity price of 160 USD/MWh in Brazil).

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:
☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

37000000

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

37000000

(3.1.1.25) Explanation of financial effect figure

In 2023, our Brazil operations produced approximately 232,000 MWh of electricity from waste heat recovered at our sulfuric acid plants and utilized at our sites. Theoretically, for the purpose of comparison, this represents approximately 37 million USD of electricity costs saved per year (assuming the average electricity price of 160 USD/MWh in Brazil).

(3.1.1.26) Primary response to risk

Infrastructure, technology and spending

☑ Other infrastructure, technology and spending, please specify **:**As an example, invest in projects to increase production of cogeneration electricity.

(3.1.1.27) Cost of response to risk

35000000

(3.1.1.28) Explanation of cost calculation

The cost of 35 million refers to projects to increase the production of cogenerated electricity at our operating facilities in Brazil.

(3.1.1.29) Description of response

We are investing in projects to increase the production of cogenerated electricity at our operating facilities in Brazil, which directly reduces our reliance on electricity from the grid. These projects include replacement of equipment and revamp of sulfuric acid plants for more efficient power generation. The projects combined will cost approximately 35 million and are slated to be implemented between 2021 and 2040. By making these investments, we have more control over our consumption of electricity and are less vulnerable to changes in generation mix by the grid due to factors such as drought. In 2023, one of the largest production sites in Brazil invested approximately 1 million to revamp a turbo generator and improve cogeneration efficiency at the site.

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk3

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical

☑ Other acute physical risk, please specify **:**Dam vulnerability

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Brazil

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Other, please specify **:**La Plata

(3.1.1.9) Organization-specific description of risk

Mining and processing of potash and phosphate generate residual materials that must be managed both during the operation of the facility and upon facility closure. Phosphate residuals from mining in Brazil are deposited in large tailing dams. Mosaic owns and manages tailing dams in Brazil. They are strictly and regularly monitored to evaluate structural stability and discharges. Mosaic has developed an internal tailings management standard that is generally aligned with the Global Industry Standard on Tailings Management (GISTM). We are implementing Mosaic's standard across our business units in accordance with the risk-informed tiered approach described in the GISTM and supporting guidance issued by the International Council on Mining and Metals (ICMM). Implementation of this standard is tracked as a sustainability target under our 2025 ESG Performance Targets. Some specific's tailings dams located in our Brazilian mining operations could cause severe property and environmental damage and loss of life in a hypothetical scenario of a failure event.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Constraint to growth

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Unlikely

(3.1.1.14) Magnitude

Select from:

☑ Medium-high

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

A hypothetical compromised dam scenario resulting in the shutdown of Mosaic's Araxa facility for one month would result in a financial impact of approximately 30 million. This figure is an estimate only and is based on total loss of rock and finished product production at this facility for a month; it also assumes there are not available inventories to offset production losses and no opportunities to reroute finished product deliveries.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

30000000

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

30000000

(3.1.1.25) Explanation of financial effect figure

A hypothetical compromised dam scenario resulting in the shutdown of Mosaic's Araxa facility for one month would result in a financial impact of approximately 30 million. This figure is an estimate only and is based on total loss of rock and finished product production at this facility for a month; it also assumes there are not available inventories to offset production losses and no opportunities to reroute finished product deliveries.

(3.1.1.26) Primary response to risk

Compliance, monitoring and targets

☑ Other compliance, monitoring or target, please specify :Mosaic has a companywide target to enact governance structure for tailings management and asses against a global standard.

(3.1.1.27) Cost of response to risk

56000000

(3.1.1.28) Explanation of cost calculation

As a result of new tailings management area standards, we are decommissioning a dam at one of our mine sites in Brazil. This project will take about 7 years and its cost is approximately 56 million USD. These estimates include decommissioning of the structure, engineering, quality assurance, monitoring and various management activities. We have also implemented a geotechnical monitoring system with automated instruments that sends live readings to a control room staffed 24/7 that helps verify the real-time stability of our dam structures in Brazil, reducing risk of a dam failure. The cost of this program is around 1 million/year, which includes software licensing, information technology expenses and personnel to staff for the control room. This example is one of the components of our broad dam management efforts; the full costs including the operational structures are greater. We have a global target to fully implement the new Mosaic tailings management standards by the end of 2025.

(3.1.1.29) Description of response

As of the end of 2023, we meet all current regulatory standards in South America for tailings management areas. However, recently, the United Nations' Environmental Programme (UNEP), International Council on Mining & Metals (ICMM), and Principles for Responsible Investment (PRI) joined together in an initiative to create the Global Industry Standard on Tailings Management (GISTM). In certain instances, their technical and system recommendations may exceed those prescribed by local and federal regulations, which may require action by us. We are finalizing an approach to further consider these requirements in our global dam risk management programs in accordance with the risk-informed tiered approach described in the GISTM and supporting guidance issued by the ICMM.

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk4

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical

☑ Drought

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Brazil

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Other, please specify **:**La Plata

(3.1.1.9) Organization-specific description of risk

There is some potential for water stress in the areas where we have operations in Brazil due to the possibility of drought and competition for water resources. Our mining and fertilizer manufacturing operations are dependent on water. Reduced supply of water has the potential to limit our production, restrict our growth and potentially increase the cost of our products. The Brazil business's production represents approximately 20% of companywide finished product tonnes. Also, since Brazil's electricity grid is supplied heavily by hydropower, a drought could interrupt our supply of electricity, which would have a negative impact on our operations, potentially in the form of production interruptions or increased costs associated with the purchase of alternative sources of power. These risks have been identified through a combination of internal company knowledge, stakeholder engagement and regional databases.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Disruption in production capacity

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Long-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ About as likely as not

(3.1.1.14) Magnitude

Select from:

☑ Medium

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Mosaic's 2023 net sales totaled approximately 13.7 billion. A theoretical decrease in production output associated with a lack of critical water supplies that resulted in 1% lower sales companywide could translate to approximately 137 million less revenue based on 2023 performance.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.23) Anticipated financial effect figure in the long-term – minimum (currency)

137000000

(3.1.1.24) Anticipated financial effect figure in the long-term – maximum (currency)

137000000

(3.1.1.25) Explanation of financial effect figure

Mosaic's 2023 net sales totaled approximately 13.7 billion. A theoretical decrease in production output associated with a lack of critical water supplies that resulted in 1% lower sales companywide could translate to approximately 137 million less revenue based on 2023 performance.

(3.1.1.26) Primary response to risk

Infrastructure, technology and spending

☑ Adopt water efficiency, water reuse, recycling and conservation practices

(3.1.1.27) Cost of response to risk

1900000

(3.1.1.28) Explanation of cost calculation

In 2022, one of our mine sites in Brazil installed a network of pipeline and containment ponds to help increase the site's use of alternative water supplies and minimize its reliance on freshwater sources, resulting in a reduction of over 10% in freshwater use for that site alone. The cost of the initiative, which entailed installation of pipelines, pumps and containment ponds, was approximately 1.9 million. Ongoing operating expenditures associated with this endeavor are minimal (still relevant in 2023).

(3.1.1.29) Description of response

Our facilities reduce the risk of high water balances by recycling high percentages of the water used in our operations, executing efficiency projects to reduce freshwater use (thereby minimizing the volume of water sent to process water ponds) and, at certain facilities, investing in reverse osmosis (RO) technology, which reduces our reliance on freshwater sources. For example, in 2022, one of our mine sites in Brazil installed a network of pipeline and containment ponds to help maximize the site's use of alternative water supplies and minimize its use of freshwater sources. This example is still relevant for the 2023 reporting period.

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk5

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical

☑ Heavy precipitation (rain, hail, snow/ice)

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Brazil

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Other, please specify :La Plata

(3.1.1.9) Organization-specific description of risk

Excess rainfall or other adverse weather could lead to high water balances at our Brazilian phosphate fertilizer manufacturing (concentrates) facilities. High water levels may require additional treatment costs or affect production. As a result, our facilities may be required to take additional measures 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. As an example of relevance, such a disruption at any one of our facilities in Brazil could impact companywide finished product tonnes by 5-10%.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Increased indirect [operating] costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ About as likely as not

(3.1.1.14) Magnitude

Select from:

☑ Medium-high

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Expressed in terms of a hypothetical reduction in production of that translates to reduced revenue: Mosaic's 2023 net sales totaled approximately 13.7 billion. A theoretical decrease in production output associated with a lack of critical water supplies that resulted in 1% lower sales companywide could translate to approximately 137 million less revenue based on 2023 performance.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

137000000

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

137000000

(3.1.1.25) Explanation of financial effect figure

Expressed in terms of a hypothetical reduction in production of that translates to reduced revenue: Mosaic's 2023 net sales totaled approximately 13.7 billion. A theoretical decrease in production output associated with a lack of critical water supplies that resulted in 1% lower sales companywide could translate to approximately 137 million less revenue based on 2023 performance.

(3.1.1.26) Primary response to risk

Infrastructure, technology and spending

☑ Adopt water efficiency, water reuse, recycling and conservation practices

(3.1.1.27) Cost of response to risk

1900000

(3.1.1.28) Explanation of cost calculation

In 2022, one of our mine sites in Brazil installed a network of pipeline and containment ponds to help increase the site's use of alternative water supplies and minimize its reliance on freshwater sources, resulting in a reduction of over 10% in freshwater use for that site alone. The cost of the initiative, which entailed installation of pipelines, pumps and containment ponds, was approximately 1.9 million. Ongoing operating expenditures associated with this endeavor are minimal (still relevant in 2023).

(3.1.1.29) Description of response

Our facilities reduce the risk of high water balances by recycling high percentages of the water used in our operations, executing efficiency projects to reduce freshwater use (thereby minimizing the volume of water sent to process water ponds) and, at certain facilities, investing in reverse osmosis (RO) technology, which reduces our reliance on freshwater sources. For example, in 2022, one of our mine sites in Brazil installed a network of pipeline and containment ponds to help maximize the site's use of alternative water supplies and minimize its use of freshwater sources. This example is still relevant for the 2023 reporting period.

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk6

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical

☑ Pollution incident

(3.1.1.4) Value chain stage where the risk occurs

Select from:
☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply
☑ Brazil

(3.1.1.7) River basin where the risk occurs

Select all that apply
☑ Other, please specify :La Plata

(3.1.1.9) Organization-specific description of risk

A Mosaic potash facility in Brazil uses treated wastewater from a nearby third-party industrial facility. This water offsets what Mosaic would otherwise have to withdraw from freshwater sources. A compromised wastewater supply at this facility could have a negative impact on Mosaic in the form of production interruptions (0.5 million tonnes or approximately 2% of total finished companywide production) and increased operating costs.

(3.1.1.11) Primary financial effect of the risk

Select from:
☑ Disruption in production capacity

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply
☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:
☑ About as likely as not

(3.1.1.14) Magnitude

Select from:

☑ Medium

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

The potential financial impact of 24 million is based on hypothetical production reduction representing approximately 10% of this facility's operational capacity. We estimate the financial impact by using the average finished product selling price for Muriate of Potash (MOP) in 2023 of 365/tonne (as compared to 643/tonne in 2022).

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

24000000

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

24000000

(3.1.1.25) Explanation of financial effect figure

The potential financial impact of 24 million is based on hypothetical production reduction representing approximately 10% of this facility's operational capacity. We estimate the financial impact by using the average finished product selling price for MOP in 2023 of 365/tonne (as compared to 643/tonne in 2022).

(3.1.1.26) Primary response to risk

Infrastructure, technology and spending

☑ Improve pollution abatement and control measures

(3.1.1.27) Cost of response to risk

350000

(3.1.1.28) Explanation of cost calculation

An occurrence of pollution at our Taquari Vassouras facility in 2018 resulted in the need for remediation activities, including disposing of contaminated sand at a licensed landfill, and implementing biological and quality monitoring onsite and at the point of discharge. These activities cost approximately 350,000. We could reasonably anticipate relatively similar costs if a similar incident were to occur at this facility. As such, we are citing these estimates here.

(3.1.1.29) Description of response

An occurrence of pollution at our Taquari Vassouras facility in 2018 resulted in the need for remediation activities there, including disposing of contaminated sand at a licensed landfill, and implementing biological and quality monitoring onsite and at the point of discharge. These activities cost approximately 350,000. This example is still relevant for the 2023 reporting period.

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk7

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical

☑ Drought

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Brazil

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Other, please specify :La Plata

(3.1.1.9) Organization-specific description of risk

There is some potential for water stress in the areas where we have operations in Brazil due to the possibility of drought and competition for water resources. Our mining and fertilizer manufacturing operations are dependent on water. Reduced supply of water has the potential to limit our production, restrict our growth and potentially increase the cost of our products. The Mosaic Brazil business's production represents approximately 20% of companywide finished product tonnes. Also, since Brazil's electricity grid is supplied heavily by hydropower, a drought could interrupt our supply of electricity, which would have a negative impact on our operations, potentially in the form of production interruptions or increased costs associated with the purchase of alternative sources of power. These risks have been identified through a combination of internal company knowledge, stakeholder engagement and regional databases.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Disruption in production capacity

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Long-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ About as likely as not

(3.1.1.14) Magnitude

Select from:

☑ Medium

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Mosaic's 2023 net sales totaled approximately 13.7 billion. A theoretical decrease in production output associated with a lack of critical water supplies that resulted in 1% lower sales companywide could translate to approximately 137 million less revenue based on 2023 performance.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.23) Anticipated financial effect figure in the long-term – minimum (currency)

137000000

(3.1.1.24) Anticipated financial effect figure in the long-term – maximum (currency)

137000000

(3.1.1.25) Explanation of financial effect figure

Mosaic's 2023 net sales totaled approximately 13.7 billion. A theoretical decrease in production output associated with a lack of critical water supplies that resulted in 1% lower sales companywide could translate to approximately 137 million less revenue based on 2023 performance.

(3.1.1.26) Primary response to risk

Infrastructure, technology and spending

☑ Adopt water efficiency, water reuse, recycling and conservation practices

(3.1.1.27) Cost of response to risk

1900000

(3.1.1.28) Explanation of cost calculation

In 2022, one of our mine sites in Brazil installed a network of pipeline and containment ponds to help maximize the site's use of alternative water supplies and minimize its reliance on freshwater sources, resulting in a reduction of over 10% in freshwater use at that site alone. The cost of the initiative, which entailed installation of pipelines, pumps and containment ponds, was approximately 1.9 million. Ongoing operating expenditures associated with this endeavor are minimal (still relevant in 2023).

(3.1.1.29) Description of response

Our facilities reduce the risk of water stress by recycling high percentages of the water used in our operations, executing efficiency projects to reduce freshwater use and, at certain facilities, investing in reverse osmosis (RO) technology, which reduces our reliance on freshwater sources. As an example of our water stewardship efforts, in 2022, one of our mine sites in Brazil installed a network of pipeline and containment ponds to help maximize the site's use of alternative water supplies and minimize its reliance on freshwater sources, resulting in a reduction of over 10% in freshwater use. The cost of the initiative, which entailed installation of pipelines, pumps and containment ponds, was approximately 1.9 million. Ongoing operating expenditures associated with this endeavor are minimal. This example is still relevant for the 2023 reporting period.

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk9

(3.1.1.3) Risk types and primary environmental risk driver

Policy

☑ Regulation of discharge quality/volumes

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Brazil

☑ Canada

☑ Peru

☑ United States of America

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Mississippi River

☑ Other, please specify :Alafia, Peace, and La Plata

(3.1.1.9) Organization-specific description of risk

We are subject to numerous environmental, health and safety laws and regulations in the U.S., Canada, Peru, Brazil and other countries where we operate. These laws and regulations govern a wide range of matters, including environmental controls, land reclamation, discharges to air and water and remediation of hazardous substance releases. They can significantly affect our operating activities (for example, by imposing limitations on activities, which could affect production) as well as the level of our operating costs and capital expenditures. These risks have been identified through a combination of company knowledge, stakeholder engagement and documented risk assessments.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Increased indirect [operating] costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ About as likely as not

(3.1.1.14) Magnitude

Select from:
☑ Medium

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Potential financial impact is estimated for a facility in the United States based on five days duration of a hypothetical environmental violation of the Clean Air Act, that the EPA may assess civil administrative penalties of up to 55,808 (2023) per day, per violation for noncompliance.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:
☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

187500

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

187500

(3.1.1.25) Explanation of financial effect figure

Potential financial impact is estimated for a facility in the United States based on five days duration of a hypothetical environmental violation of the Clean Air Act, that the EPA may assess civil administrative penalties of up to 55,808 (2023) per day, per violation for noncompliance.

(3.1.1.26) Primary response to risk

Compliance, monitoring and targets
☑ Greater compliance with regulatory requirements

(3.1.1.27) Cost of response to risk

470000000

(3.1.1.28) Explanation of cost calculation

In the year ended December 31, 2023, we spent approximately 470 million for environmental capital expenditures, land reclamation activities, Gypstack closure and water treatment activities. These expenditures are associated with our compliance efforts.

(3.1.1.29) Description of response

We have expended, and anticipate that we will continue to expend, substantial financial and managerial resources to comply with local regulatory requirements, EHS standards and to continue to improve our environmental stewardship. As an example of a company-specific regulatory requirement, in the United States, water discharge permits are issued and parameters set by National Pollutant Discharge Elimination System (NPDES), which is overseen by the United States Environmental Protection Agency (EPA).

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk10

(3.1.1.3) Risk types and primary environmental risk driver

Market

☑ Other market risk, please specify **:**Statutory water withdrawal limits/changes to water allocation.

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ United States of America

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Other, please specify :Pecos

(3.1.1.9) Organization-specific description of risk

At our Carlsbad facility, Mosaic is permitted to withdraw volumes of groundwater beyond those needed to meet our production needs. We have arrangements with nearby businesses to sell that water for commercial use. The financial benefit of this arrangement to Mosaic is more than 1 million annually.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Decreased revenues due to reduced demand for products and services

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Unlikely

(3.1.1.14) Magnitude

Select from:

☑ Low

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

The financial benefit of this arrangement to Mosaic is more than 1 million annually. If our permits were modified and authorized withdrawal volumes decreased, this arrangement could be re-evaluated, resulting in potentially lower revenue to Mosaic.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

1000000

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

1000000

(3.1.1.25) Explanation of financial effect figure

The financial benefit of this arrangement to Mosaic is more than 1 million annually. If our permits were modified and authorized withdrawal volumes decreased, this arrangement could be re-evaluated, resulting in potentially lower revenue to Mosaic.

(3.1.1.26) Primary response to risk

Engagement

☑ Engage with regulators/policy makers

(3.1.1.27) Cost of response to risk

10000

(3.1.1.28) Explanation of cost calculation

The cost of engaging stakeholders is not available as an individual line item. However, the estimate of 10,000 cited above reflects an approximation of the cost of employee time and resources related to managing these relationships.

(3.1.1.29) Description of response

We engage stakeholders, including regulators, to secure water use permits. Water is a critical input to Mosaic's mining and manufacturing processes.

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk11

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical

☑ Other acute physical risk, please specify :Brine inflow

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ United States of America

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Other, please specify :Pecos

(3.1.1.9) Organization-specific description of risk

Mosaic's Carlsbad potash mine is subject to the risk of inflow of water as a result of their shaft mining operations. Water inflow risk at Carlsbad is included in our insurance coverage subject to deductibles.

(3.1.1.11) Primary financial effect of the risk

Select from:
☑ Increased indirect [operating] costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply
☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:
☑ Unlikely

(3.1.1.14) Magnitude

Select from:
☑ Medium

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Mosaic's insurance deductible for a covered event is, at a minimum, 50 million per occurrence for mines and fertilizer production facilities in North America.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:
☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

50000000

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

50000000

(3.1.1.25) Explanation of financial effect figure

Mosaic's insurance deductible for a covered event is, at a minimum, 50 million per occurrence for mines and fertilizer production facilities in North America.

(3.1.1.26) Primary response to risk

Compliance, monitoring and targets

☑ Other compliance, monitoring or target, please specify :Mining control measures.

(3.1.1.27) Cost of response to risk

50000000

(3.1.1.28) Explanation of cost calculation

The costs associated with these mining practices are considered a normal part of our operations at Carlsbad and are not available as an individual line item. We carry insurance to reduce our exposure to property damage risks. The deductible for a covered event is, at a minimum, 50 million.

(3.1.1.29) Description of response

The Carlsbad mine is less prone to brine inflow due to its geology. To reduce the risk of brine inflow, we employ mining methods that leave in place a layer of salt that is above the ore reserve we are extracting.

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk12

(3.1.1.3) Risk types and primary environmental risk driver

Chronic physical

☑ Water stress

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ United States of America

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Other, please specify :Alafia and Peace

(3.1.1.9) Organization-specific description of risk

There is the possibility of increased water stress in central Florida due to a rising population in the region. If demand becomes greater, it has the potential to limit our production, restrict our growth and increase the cost of our products. To reduce the risk of water stress, Mosaic is developing strategies to drive long-term water management improvements, including the use of reverse osmosis to recycle more than 250 gal/min back for use at the Bartow facility's sulfuric acid plant. These risks have been identified through a combination of internal company knowledge, stakeholder engagement and regional databases.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Disruption in production capacity

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Long-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Unlikely

(3.1.1.14) Magnitude

Select from:

☑ Medium

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Mosaic's 2023 net sales totaled approximately 13.7 billion. A theoretical decrease in production output that resulted in 1% lower sales companywide could translate to approximately 137 million less revenue based on 2023 performance.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.23) Anticipated financial effect figure in the long-term – minimum (currency)

137000000

(3.1.1.24) Anticipated financial effect figure in the long-term – maximum (currency)

137000000

(3.1.1.25) Explanation of financial effect figure

Mosaic's 2023 net sales totaled approximately 13.7 billion. A theoretical decrease in production output that resulted in 1% lower sales companywide could translate to approximately 137 million less revenue based on 2023 performance.

(3.1.1.26) Primary response to risk

Infrastructure, technology and spending

☑ Adopt water efficiency, water reuse, recycling and conservation practices

(3.1.1.27) Cost of response to risk

6100000

(3.1.1.28) Explanation of cost calculation

As an example of our water stewardship efforts, Mosaic's Bartow facility uses reverse osmosis to produce more than 250 gallons per minute of treated water back for use at the facility's sulfuric acid plant, thereby reducing freshwater needs by the same amount. It cost approximately 6.1 million to run the reverse osmosis plant at our Bartow facility in 2023.

(3.1.1.29) Description of response

Our facilities reduce the risk of water stress by recycling high percentages of the water used in our operations, executing efficiency projects to reduce freshwater use and, at certain facilities, investing in reverse osmosis (RO) technology, which reduces our reliance on freshwater sources. For example, as part of their larger water conservation efforts, Mosaic's Bartow facility uses reverse osmosis to produce more than 250 gallons per minute of treated water back for use at the facility's sulfuric acid plant, thereby reducing freshwater needs by the same amount. It cost approximately 6.1 million to run the reverse osmosis plant at our Bartow facility in 2023

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk13

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical

☑ Cyclone, hurricane, typhoon

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ United States of America

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Mississippi River

(3.1.1.9) Organization-specific description of risk

Adverse weather conditions, including the impact of potential hurricanes and excess precipitation, could adversely affect our operations, particularly our Phosphates business. Hurricanes and heavy precipitation events can result in physical damage to our facilities in Florida and Louisiana. This risk has been identified through a combination of internal company knowledge and risk assessments.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Disruption in production capacity

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Long-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ About as likely as not

(3.1.1.14) Magnitude

Select from:

☑ Medium-high

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Mosaic has approximately 8 billion in assets in hurricane-prone areas. In 2022 operating results were unfavorably impacted by Hurricane Ian which resulted in a cost of goods sold impact of 39 million related to idle costs. Additional costs will be detailed in 2024 CDP. This potential financial impact is based on actual impacts associated with Hurricane Ian. We are using these costs to project realistic future costs associated with a similar event. The data from 2022 remains relevant for this reporting cycle; our facilities did not suffer any direct hurricane impacts during the 2023 Atlantic hurricane season.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.23) Anticipated financial effect figure in the long-term – minimum (currency)

39000000

(3.1.1.24) Anticipated financial effect figure in the long-term – maximum (currency)

39000000

(3.1.1.25) Explanation of financial effect figure

Mosaic has approximately 8 billion in assets in hurricane-prone areas. In 2022 operating results were unfavorably impacted by Hurricane Ian which resulted in a cost of goods sold impact of 39 million related to idle costs. Additional costs will be detailed in 2024 CDP. This potential financial impact is based on actual impacts associated with Hurricane Ian. We are using these costs to project realistic future costs associated with a similar event. The data from 2022 remains relevant for this reporting cycle; our facilities did not suffer any direct hurricane impacts during the 2023 Atlantic hurricane season.

(3.1.1.26) Primary response to risk

Policies and plans

☑ Develop flood emergency plans

(3.1.1.27) Cost of response to risk

100000000

(3.1.1.28) Explanation of cost calculation

In the event of a weather event resulting in damages that exceed our deductible, Mosaic's cost would be, at a minimum, 100 million per occurrence of named windstorm event for mines and fertilizer production facilities in North America. This cost is not regularly occurring but could be incurred for each occurrence of the event and would depend on the severity of the event.

(3.1.1.29) Description of response

Mosaic has a focus on hurricane/precipitation preparedness at all facilities that are within the zone of risk. Each site's contingency practices include procedures and guidelines (emergency plans) for the direction, control, and coordination for securing, shutdown, safe evacuation (if required), and the orderly restoration of plant operations in the event of a storm. Mosaic's insurance deductible for a covered named windstorm events is, at a minimum, 100 million per occurrence for mines and fertilizer production facilities in North America.

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk14

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical

☑ Cyclone, hurricane, typhoon

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ United States of America

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Mississippi River

☑ Other, please specify :Alafia; Peace

(3.1.1.9) Organization-specific description of risk

Adverse weather conditions, including the impact of potential hurricanes and excess precipitation, could adversely affect our operations, particularly our Phosphates business. Hurricanes and heavy precipitation events can result in physical damage to our facilities in Florida and Louisiana, which could have an impact on our operating results or result in increased costs or capital expenditures. This risk has been identified through a combination of internal company knowledge and risk assessments.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Disruption in production capacity

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ About as likely as not

(3.1.1.14) Magnitude

Select from:

☑ Medium-high

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Mosaic has approximately 8 billion in assets in hurricane-prone areas. In 2022 operating results were unfavorably impacted by Hurricane Ian which resulted in a cost of goods sold impact of 39 million related to idle costs. This potential financial impact is based on actual impacts associated with Hurricane Ian. We are using these costs to project realistic future costs associated with a similar event. The data from 2022 remains relevant for this reporting cycle; our facilities did not suffer any direct hurricane impacts during the 2023 Atlantic hurricane season.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

39000000

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

39000000

(3.1.1.25) Explanation of financial effect figure

Mosaic has approximately 8 billion in assets in hurricane-prone areas. For instance, Hurricane Ida in 2021 caused damage to two of our Louisiana sites, resulting in power loss for over 20 days and property damage costs of approximately 125 million (exceeding our deductible). In 2022, Category 5 Hurricane Ian impacted our Florida facilities, causing downtime, deferred purchases, and delayed shipments. The impact of this hurricane on our phosphate operations resulted in costs of 39 million in 2022. The data from 2021 and 2022 remains relevant for this reporting cycle; our facilities did not suffer any direct hurricane impacts during the 2023 Atlantic hurricane season. We are using these costs to project realistic future costs associated with a similar event.

(3.1.1.26) Primary response to risk

Policies and plans

☑ Develop flood emergency plans

(3.1.1.27) Cost of response to risk

100000000

(3.1.1.28) Explanation of cost calculation

In the event of a weather event resulting in damages that exceed our deductible, Mosaic's cost would be, at a minimum, 100 million per named windstorm event occurrence for mines and fertilizer production facilities in North America. This cost is not regularly occurring but could be incurred for each occurrence of the event and would depend on the severity of the event.

(3.1.1.29) Description of response

Mosaic has a focus on hurricane/precipitation preparedness at all facilities that are within the zone of risk. Each site's contingency practices include procedures and guidelines (emergency plans) for the direction, control, and coordination for securing, shutdown, safe evacuation (if required), and the orderly restoration of plant operations in the event of a storm. Mosaic's insurance deductible for a covered named windstorm event is, at a minimum, 100 million per occurrence for mines and fertilizer production facilities in North America.

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk15

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical

☑ Cyclone, hurricane, typhoon

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ United States of America

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Mississippi River

(3.1.1.9) Organization-specific description of risk

Mosaic relies on the Mississippi River to transport critical raw materials and in-process and finished goods. A widespread precipitation event in the Mississippi River Basin has the potential to interfere with Mosaic's supply of natural gas and sulfur, which are critical inputs to our production processes. Thus, a delay in these inputs could have a negative impact on production. Similarly, such an event could interfere with transportation of products to Mosaic's customers from the Midwest to the Gulf Coast. The consequence of such an event could have a negative impact on our operating results or revenue. This risk has been identified through a combination of internal company knowledge and risk assessments.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Disruption in production capacity

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ About as likely as not

(3.1.1.14) Magnitude

Select from:

☑ Medium

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

It is difficult to estimate the financial impact associated with such an event. Hypothetically, if these interruptions resulted in a 1% decrease in net sales, the impact would be approximately 137 million based on 2023 net sales.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

137000000

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

137000000

(3.1.1.25) Explanation of financial effect figure

It is difficult to estimate the financial impact associated with such an event. Hypothetically, if these interruptions resulted in a 1% decrease in net sales, the impact would be approximately 137 million based on 2023 net sales.

(3.1.1.26) Primary response to risk

Diversification

☑ Increase supplier diversification

(3.1.1.27) Cost of response to risk

16000000

(3.1.1.28) Explanation of cost calculation

As an example of one solution we have implemented to manage this risk is to transport finished product inventory early, in anticipation of possible suspension of river traffic due to intense weather later in the season. We may also divert vessels or convert freight from barges to rail, which would be considered suboptimal means. In 2021, Hurricane Ida struck Louisiana as a Category 4 storm and caused interruptions to supply chain transport via the Mississippi River. As a result, we absorbed supply chain impacts totaling 16 million associated with vessel demurrage, vessel diversion and shipping via rail instead of barges. The data from 2021 remains relevant for this reporting cycle; our facilities did not suffer any direct hurricane impacts during the 2023 Atlantic hurricane season.

(3.1.1.29) Description of response

In order to avoid or reduce 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. As it relates to delays in shipping of products to our customers from these facilities in the Mississippi River basin, our supply chain employs a number of strategies to minimize this risk, including, when necessary, sending freight via suboptimal means, which can increase our costs (incrementally).

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk16

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical

☑ Heavy precipitation (rain, hail, snow/ice)

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ United States of America

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Mississippi River

☑ Other, please specify :Alafia; Peace

(3.1.1.9) Organization-specific description of risk

Excess rainfall or other adverse weather could lead to high water balances at our phosphate fertilizer manufacturing (concentrates) facilities. High water levels may require additional treatment costs or affect production. As a result, our facilities may be required to take additional measures 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. As an example of relevance, such a disruption at any one of our concentrates facilities in Florida could impact finished product tonnes by 10-15% for the affected period.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Increased indirect [operating] costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ About as likely as not

(3.1.1.14) Magnitude

Select from:

☑ Medium-high

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

In the year ended December 31, 2023, we spent approximately 470 million for environmental capital expenditures, land reclamation activities, Gypstack closure and water treatment activities. These are activities we undertake on an annual basis and include managing the risk of high water balances at our concentrates sites. Assuming a hypothetical increase in water treatment costs of 5% as a result of especially high water balances following excessive rainfall or a hurricane, the impact to us would be an incremental 23.5 million based on 2023 costs. Expressed in terms of a hypothetical reduction in production of one hundred thousand that translates to reduced revenue, the impact to Mosaic could be upwards of 65 million (calculated by multiplying 100,000 tonnes by 2023 average finished product selling price of 646 for phosphate).

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

65000000

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

65000000

(3.1.1.25) Explanation of financial effect figure

In the year ended December 31, 2023, we spent approximately 470 million for environmental capital expenditures, land reclamation activities, Gypstack closure and water treatment activities. These are activities we undertake on an annual basis and include managing the risk of high water balances at our concentrates sites. Assuming a hypothetical increase in water treatment costs of 5% as a result of especially high water balances following excessive rainfall or a hurricane, the impact to us would be an incremental 23.5 million based on 2023 costs. Expressed in terms of a hypothetical reduction in production of one hundred thousand that translates to reduced revenue, the impact to Mosaic could be upwards of 65 million (calculated by multiplying 100,000 tonnes by 2023 average finished product selling price of 646 for phosphate).

(3.1.1.26) Primary response to risk

Infrastructure, technology and spending

☑ Adopt water efficiency, water reuse, recycling and conservation practices

(3.1.1.27) Cost of response to risk

21000000

(3.1.1.28) Explanation of cost calculation

The threat of excess rainfall having an adverse impact on high water balances at our phosphate fertilizer manufacturing (concentrates) facilities resulted in a decision to resort to costly treatment methods, which translated to an increase in operating costs. The costs cited here are approximate costs associated with lime treatment and water trucking in 2021. This example is still pertinent for this reporting cycle.

(3.1.1.29) Description of response

In 2022 in response to the risk of increased likelihood of severe rainfall events that could have an adverse impact on water balances, we deployed new treatment techniques, including lime treatment at one site, and transportation of water between two other sites, to manage water and mitigate the risk associated with high water balances. The cost of lime treatment in 2022, in the context of this single campaign, was approximately 7.5million. The cost of trucking water (another method to manage high water balances) was approximately 13.5 million. The sum of these costs was 21 million. This example is still pertinent for this reporting cycle.

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk17

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical

☑ Cyclone, hurricane, typhoon

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Upstream value chain

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ United States of America

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Mississippi River

(3.1.1.9) Organization-specific description of risk

Adverse weather may adversely affect delivery of our products to our customers. For example, oil refineries that supply sulfur to us may suspend operations as a result of a hurricane, and incoming shipments of ammonia can be delayed, disrupting production at our Florida or Louisiana facilities and therefore, delivery of our finished products to customers. Sulfur and ammonia are key ingredients for our products; we are one of the world's largest purchasers of sulfur and nitrogen and cannot produce phosphate fertilizers without these products. Production of sulfur and nitrogen in North America is concentrated in hurricane prone states of Texas and Louisianna. Climate conditions potentially causing more frequent or and severe hurricane are, therefore, a material risk. Mosaic and our suppliers are implementing mitigation plans that lower the associated risk to Mosaic's raw material appropriation.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Disruption in production capacity

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ About as likely as not

(3.1.1.14) Magnitude

Select from:

☑ Medium

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

It is difficult to estimate the financial impact associated with such an event. Hypothetically, if the interruption of receipt of inputs had resulted in decreased production that translated to a 1% decrease in net sales, the impact would be approximately 137 million based on 2023 net sales of 13.7 billion.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

137000000

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

137000000

(3.1.1.25) Explanation of financial effect figure

It is difficult to estimate the financial impact associated with such an event. Hypothetically, if the interruption of receipt of inputs had resulted in decreased production that translated to a 1% decrease in net sales, the impact would be approximately 137 million based on 2023 net sales of 13.7 billion.

(3.1.1.26) Primary response to risk

Policies and plans

☑ Other policies or plans, please specify **:**Implement mitigation plans that lower associated risk to Mosaic's raw material appropriation.

(3.1.1.27) Cost of response to risk

487500

(3.1.1.28) Explanation of cost calculation

In 2022 there were high water and low water conditions that effected barge logistics and required planned response. To reduce the flood risk on the Mississippi River that would interfere with delivery of products to customers, since 2004 (the year of the company's formation) Mosaic has deployed a waterways plan that allows us the flexibility to send barges upriver in fair weather conditions, use the barges as storage facilities if necessary, during drought conditions and then redirect the barge to its destination when the river is navigable. The waterways strategy is refreshed annually in response to market, weather and climate conditions. This scenario could result in increased inventory storage expenses of approximately 325 per day per barge in years we use barge storage. As a theoretical example, in the event of such an event, if we send 50 barges for one month (30 days) additional costs would be approximately 487,500. This example is still applicable to this reporting period.

(3.1.1.29) Description of response

To reduce the flood risk on the Mississippi River that would interfere with delivery of products to customers, since 2004 (the year of the company's formation) Mosaic has deployed a waterways plan that allows us the flexibility to send barges upriver in fair weather conditions, use the barges as storage facilities if necessary, during drought conditions and then redirect the barge to its destination when the river is navigable. The waterways strategy is refreshed annually in response to market, weather and climate conditions.

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk18

(3.1.1.3) Risk types and primary environmental risk driver

Chronic physical

☑ Water stress

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Downstream value chain

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ United States of America

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Mississippi River

(3.1.1.9) Organization-specific description of risk

Water stress could have detrimental impact on Mosaic's ability to sell its products. The end users of Mosaic's crop nutrient products are farmers. Globally, agriculture accounts for roughly 70% of global freshwater withdrawals and is the primary source of nutrient runoff from farm fields. The agricultural industry, namely farmers who apply crop nutrient products like the ones Mosaic produces, could face water restrictions due to regional water stress that interfere with their ability to grow crops, which could potentially have a negative impact on demand for Mosaic's products. Similarly, any new regulation aimed at reducing nutrient runoff from farms could interfere with a farmer's ability to apply crop nutrient products, which could theoretically reduce demand for Mosaic's products and translate to lower net sales. The United States is one of our primary agricultural markets, accounting for approximately 4.7 billion in net sales in 2023.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Decreased revenues due to reduced demand for products and services

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Medium-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ About as likely as not

(3.1.1.14) Magnitude

Select from:

☑ Medium

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

A theoretical decrease in demand for Mosaic's crop nutrient products in the United States that resulted in 1% lower sales companywide for the region could translate to approximately 137 million less revenue based on 2023 performance. This example is still pertinent for this reporting cycle.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.21) Anticipated financial effect figure in the medium-term – minimum (currency)

137000000

(3.1.1.22) Anticipated financial effect figure in the medium-term – maximum (currency)

137000000

(3.1.1.25) Explanation of financial effect figure

A theoretical decrease in demand for Mosaic's crop nutrient products in the United States that resulted in 1% lower sales companywide for the region could translate to approximately 137 million less revenue based on 2023 performance. This example is still pertinent for this reporting cycle.

(3.1.1.26) Primary response to risk

Agricultural practices

☑ Other agricultural practice, please specify **:**Promote efficient fertilizer and pesticide management among suppliers.

(3.1.1.27) Cost of response to risk

29000000

(3.1.1.28) Explanation of cost calculation

Mosaic promotes, invests and engages in nutrient stewardship efforts across North America as part of our strategy to reduce the risk associated with water use and water quality. Mosaic's total funding in water-related partnerships is approximately 35 million since 2004. We seek partnerships with organizations that have the local relationships and knowledge necessary to advance nutrient stewardship in a way that maximizes positive impact.

(3.1.1.29) Description of response

Mosaic is committed to supporting best agricultural practices, including research and practices to manage adverse water impacts associated with the use of our crop nutrient products. Mosaic supports promotion of agricultural best practices by encouraging stakeholders, including direct retailer customers, to enhance their understanding, adoption and promotion of 4R Nutrient Stewardship. By applying the right fertilizer at the right rate, right time and in the right place, farmers manage environmental impacts associated with fertilizer use, including agricultural runoff from farmlands into waterways. Mosaic has invested approximately 35 million in funding for water-related partnerships since 2004.

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk19

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical

☑ Cyclone, hurricane, typhoon

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Downstream value chain

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ United States of America

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Mississippi River

(3.1.1.9) Organization-specific description of risk

Acute physical water events could have detrimental impact on Mosaic's ability to sell its products. The end users of Mosaic's crop nutrient products are farmers. Severe weather conditions, including the impact of hurricanes, floods and excess rainfall could have a negative impact on crop growing conditions. For example, adverse weather in 2019 in North America delayed planting and harvest, which, along with other factors, had a negative impact on demand for Mosaic's crop nutrient products. Persistent adverse weather could mean we are increasingly exposed to risk due to weather and crop growing conditions. This example is still pertinent for this reporting cycle.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Decreased revenues due to reduced demand for products and services

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ About as likely as not

(3.1.1.14) Magnitude

Select from:

☑ Medium-high

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Selling prices for Mosaic's phosphate products in North America were approximately 16% lower in 2019, due in part to reduced demand as a result of the adverse weather in North America that significantly delayed crop planting and harvest, thereby impacting fertilizer demand. Non-weather events were also significant factors in the decline in selling prices. Expressed in terms of net sales, the impact of lower average sales prices and lower sales volumes to Mosaic was approximately 640 million. The impact could have been higher had it not been partially offset by our exports of finished products to other regions. This impact on our financial condition is considered high magnitude. This example is still pertinent for this reporting cycle.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

640000000

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

640000000

(3.1.1.25) Explanation of financial effect figure

Selling prices for Mosaic's phosphate products in North America were approximately 16% lower in 2019, due in part to reduced demand as a result of the adverse weather in North America that significantly delayed crop planting and harvest, thereby impacting fertilizer demand. Non-weather events were also significant factors in the decline in selling prices. Expressed in terms of net sales, the impact of lower average sales prices and lower sales volumes to Mosaic was approximately 640 million. The impact could have been higher had it not been partially offset by our exports of finished products to other regions. This impact on our financial condition is considered high magnitude. This example is still pertinent for this reporting cycle.

(3.1.1.26) Primary response to risk

Diversification

☑ Market expansion

(3.1.1.27) Cost of response to risk

487500

(3.1.1.28) Explanation of cost calculation

The cost of this response is hard to quantify as an individual line item. However, as an example of another solution we have implemented to manage this risk is to transport finished product inventory early (thereby avoiding adverse weather), or to absorb additional demurrage costs associated with delays and storage. This scenario could result in increased inventory storage expenses of 275 per day per barge. As a theoretical example, in the event of such an event, if we send 50 barges for one month (30 days) additional costs would be approximately 487,500.

(3.1.1.29) Description of response

The cost of this response is hard to quantify as an individual line item. However, as an example of another solution we have implemented to manage this risk is to transport finished product inventory early (thereby avoiding adverse weather), or to absorb additional demurrage costs associated with delays and storage. This scenario could result in increased inventory storage expenses of 275 per day per barge. As a theoretical example, in the event of such an event, if we send 50 barges for one month (30 days) additional costs would be approximately 487,500.
[Add row]

(3.1.2) Provide the amount and proportion of your financial metrics from the reporting year that are vulnerable to the substantive effects of environmental risks.

Climate change

(3.1.2.1) Financial metric

Select from:
☑ Revenue

(3.1.2.2) Amount of financial metric vulnerable to transition risks for this environmental issue (unit currency as selected in 1.2)

470000000

(3.1.2.3) % of total financial metric vulnerable to transition risks for this environmental issue

Select from:
☑ 1-10%

(3.1.2.4) Amount of financial metric vulnerable to physical risks for this environmental issue (unit currency as selected in 1.2)

1950000000

(3.1.2.5) % of total financial metric vulnerable to physical risks for this environmental issue

Select from:

☑ 11-20%

(3.1.2.7) Explanation of financial figures

In the year ended December 31, 2023, we spent approximately 470 million for environmental capital expenditures, land reclamation activities, Gypstack closure and water treatment activities. These expenditures are associated with our compliance efforts. For active Gypstacks in Florida and Louisiana, we have financial assurance mechanisms in place (cash, cash equivalents and parent guarantees) to backstop our obligations to close and provide long-term care for them totaling approximately 1.95 billion.

Water

(3.1.2.1) Financial metric

Select from:

☑ Revenue

(3.1.2.2) Amount of financial metric vulnerable to transition risks for this environmental issue (unit currency as selected in 1.2)

470000000

(3.1.2.3) % of total financial metric vulnerable to transition risks for this environmental issue

Select from:

☑ 1-10%

(3.1.2.4) Amount of financial metric vulnerable to physical risks for this environmental issue (unit currency as selected in 1.2)

1950000000

(3.1.2.5) % of total financial metric vulnerable to physical risks for this environmental issue

Select from:
☑ 11-20%

(3.1.2.7) Explanation of financial figures

In the year ended December 31, 2023, we spent approximately 470 million for environmental capital expenditures, land reclamation activities, Gypstack closure and water treatment activities. These expenditures are associated with our compliance efforts. For active Gypstacks in Florida and Louisiana, we have financial assurance mechanisms in place (cash, cash equivalents and parent guarantees) to backstop our obligations to close and provide long-term care for them totaling approximately 1.95 billion.

Climate change

(3.1.2.1) Financial metric

Select from:
☑ CAPEX

(3.1.2.2) Amount of financial metric vulnerable to transition risks for this environmental issue (unit currency as selected in 1.2)

8000000000

(3.1.2.3) % of total financial metric vulnerable to transition risks for this environmental issue

Select from:
☑ 31-40%

(3.1.2.4) Amount of financial metric vulnerable to physical risks for this environmental issue (unit currency as selected in 1.2)

8000000000

(3.1.2.5) % of total financial metric vulnerable to physical risks for this environmental issue

Select from:
☑ 31-40%

(3.1.2.6) Amount of CAPEX in the reporting year deployed towards risks related to this environmental issue

470000000

(3.1.2.7) Explanation of financial figures

Mosaic has 8 billion in physical assets in hurricane-prone areas of Florida and Louisiana. Our insurance deductible for a covered named windstorm event is at least 100 million per occurrence for production facilities in North America. Despite our facilities being built to withstand storms, increased hurricane activity or a severe storm could result in physical damage or business interruption and force a change in design standards for buildings, equipment, or containment. This could result in increased capital costs or costs per tonne of product. The U.S. hurricane season runs from June 1 to November 30. For instance, Hurricane Ida in 2021 caused damage to two of our Louisiana sites, resulting in power loss for over 20 days and property damage costs of approximately 125 million (exceeding our deductible). In 2022, Category 5 Hurricane Ian impacted our Florida facilities, causing downtime, deferred purchases, and delayed shipments. The impact of this hurricane on our phosphate operations resulted in costs of 39 million in 2022. The data from 2021 and 2022 remains relevant for this reporting cycle; our facilities did not suffer any direct hurricane impacts during the 2023 Atlantic hurricane season. We are utilizing total capital assets of 23 billion USD in 2023 as stated in our Form 10-K. In the year ended December 31, 2023, we spent approximately 470 million for environmental capital expenditures, land reclamation activities, Gypstack closure and water treatment activities. These expenditures are associated with our compliance efforts.
[Add row]

(3.2) Within each river basin, how many facilities are exposed to substantive effects of water-related risks, and what percentage of your total number of facilities does this represent?

Row 1

(3.2.1) Country/Area & River basin

Canada

☑ Other, please specify :Qu'Appelle

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply

☑ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

4

(3.2.4) % of your organization’s total facilities within direct operations exposed to water-related risk in this river basin

Select from:

☑ 1-25%

(3.2.10) % organization’s total global revenue that could be affected

Select from:

☑ 31-40%

(3.2.11) Please explain

This figure was calculated based on the number of facilities in our Locations Directory (https://www.google.com/maps/d/u/0/viewer?hlen&ieUTF8&msa0&ll11.80988484641368%2C-42.978515625&spn0.004764%2C0.007929&z3&sourceembed&mid1mzd2Xi1gb270-710bzZokc_B_IU) which, as of the date of this report, totaled 62. Percent total revenue that could be affected was estimated using potash and phosphates net sales and percent total production by basin.

Row 2

(3.2.1) Country/Area & River basin

United States of America

☑ Other, please specify **:**Pecos.

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply

☑ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

1

(3.2.4) % of your organization's total facilities within direct operations exposed to water-related risk in this river basin

Select from:

☑ 1-25%

(3.2.10) % organization's total global revenue that could be affected

Select from:

☑ 1-10%

(3.2.11) Please explain

This figure was calculated based on the number of facilities in our Locations Directory (https://www.google.com/maps/d/u/0/viewer?hlen&ieUTF8&msa0&ll11.80988484641368%2C-42.978515625&spn0.004764%2C0.007929&z3&sourceembed&mid1mzd2Xi1gb270-710bzZokc_B_IU) which, as of the date of this report, totaled 62. Percent total revenue that could be affected was estimated using potash and phosphates net sales and percent total production by basin.

Row 3

(3.2.1) Country/Area & River basin

United States of America

☑ Mississippi River

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply

☑ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

2

(3.2.4) % of your organization's total facilities within direct operations exposed to water-related risk in this river basin

Select from:

☑ 1-25%

(3.2.10) % organization's total global revenue that could be affected

Select from:

☑ 1-10%

(3.2.11) Please explain

This figure was calculated based on the number of facilities in our Locations Directory (https://www.google.com/maps/d/u/0/viewer?hlen&ieUTF8&msa0&ll11.80988484641368%2C-42.978515625&spn0.004764%2C0.007929&z3&sourceembed&mid1mzd2Xi1gb270-710bzZokc_B_IU) which, as of the date of this report, totaled 62. Percent total revenue that could be affected was estimated using potash and phosphates net sales and percent total production by basin.

Row 4

(3.2.1) Country/Area & River basin

United States of America
☑ Other, please specify :Alafia

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply
☑ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

2

(3.2.4) % of your organization's total facilities within direct operations exposed to water-related risk in this river basin

Select from:
☑ 1-25%

(3.2.10) % organization's total global revenue that could be affected

Select from:
☑ 1-10%

(3.2.11) Please explain

This figure was calculated based on the number of facilities in our Locations Directory (https://www.google.com/maps/d/u/0/viewer?hlen&ieUTF8&msa0&ll11.80988484641368%2C-42.978515625&spn0.004764%2C0.007929&z3&sourceembed&mid1mzd2Xi1gb270-710bzZokc_B_IU) which, as of the date of this report, totaled 62. Percent total revenue that could be affected was estimated using potash and phosphates net sales and percent total production by basin.

Row 5

(3.2.1) Country/Area & River basin

United States of America

☑ Other, please specify :Peace

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply

☑ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

1

(3.2.4) % of your organization’s total facilities within direct operations exposed to water-related risk in this river basin

Select from:

☑ 1-25%

(3.2.10) % organization’s total global revenue that could be affected

Select from:

☑ 1-10%

(3.2.11) Please explain

This figure was calculated based on the number of facilities in our Locations Directory (https://www.google.com/maps/d/u/0/viewer?hlen&ieUTF8&msa0&ll11.80988484641368%2C-42.978515625&spn0.004764%2C0.007929&z3&sourceembed&mid1mzd2Xi1gb270-710bzZokc_B_IU) which, as of the date of this report, totaled 62. Percent total revenue that could be affected was estimated using potash and phosphates net sales and percent total production by basin.

Row 6

(3.2.1) Country/Area & River basin

Brazil
☑ Other, please specify :La Plata

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply
☑ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

4

(3.2.4) % of your organization's total facilities within direct operations exposed to water-related risk in this river basin

Select from:
☑ 1-25%

(3.2.10) % organization's total global revenue that could be affected

Select from:
☑ 1-10%

(3.2.11) Please explain

This figure was calculated based on the number of facilities in our Locations Directory (https://www.google.com/maps/d/u/0/viewer?hlen&ieUTF8&msa0&ll11.80988484641368%2C-42.978515625&spn0.004764%2C0.007929&z3&sourceembed&mid1mzd2Xi1gb270-710bzZokc_B_IU) which, as of the date of this report, totaled 62. Percent total revenue that could be affected was estimated using potash and phosphates net sales and percent total production by basin.

Row 7

(3.2.1) Country/Area & River basin

Brazil

☑ Other, please specify :Uruguay-Brazil, South Atlantic Coast

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply

☑ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

2

(3.2.4) % of your organization's total facilities within direct operations exposed to water-related risk in this river basin

Select from:

☑ 1-25%

(3.2.10) % organization's total global revenue that could be affected

Select from:

☑ 1-10%

(3.2.11) Please explain

This figure was calculated based on the number of facilities in our Locations Directory (https://www.google.com/maps/d/u/0/viewer?hlen&ieUTF8&msa0&ll11.80988484641368%2C-42.978515625&spn0.004764%2C0.007929&z3&sourceembed&mid1mzd2Xi1gb270-710bzZokc_B_IU) which, as of the date of this report, totaled 62. Percent total revenue that could be affected was estimated using potash and phosphates net sales and percent total production by basin.

[Add row]

(3.3) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?

(3.3.1) Water-related regulatory violations

Select from:

☑ Yes

(3.3.2) Fines, enforcement orders, and/or other penalties

Select all that apply

☑ Enforcement orders or other penalties but none that are considered as significant

(3.3.3) Comment

Companywide, we resolved six enforcement actions in 2023 alleging non-compliance with environmental permits or regulations, representing fines in the amount of approximately 77,000. Of those, four events were related to water quality permits.
[Fixed row]

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

Select from:

☑ Yes

(3.5.1) Select the carbon pricing regulation(s) which impact your operations.

Select all that apply

☑ Saskatchewan OBPS - ETS

(3.5.2) Provide details of each Emissions Trading Scheme (ETS) your organization is regulated by.

Saskatchewan OBPS - ETS

(3.5.2.1) % of Scope 1 emissions covered by the ETS

25

(3.5.2.2) % of Scope 2 emissions covered by the ETS

32

(3.5.2.3) Period start date

01/01/2018

(3.5.2.4) Period end date

12/31/2030

(3.5.2.5) Allowances allocated

0

(3.5.2.6) Allowances purchased

0

(3.5.2.7) Verified Scope 1 emissions in metric tons CO2e

862448.5

(3.5.2.8) Verified Scope 2 emissions in metric tons CO2e

372029.01

(3.5.2.9) Details of ownership

Select from:

☑ Facilities we own and operate

(3.5.2.10) Comment

2023 emissions cited here represent those which were third-party assured by ERM CVS to a moderate standard alongside the rest of Mosaic's companywide emissions. Mosaic undertakes a separate validation exercise of scope 1 emissions from sites that are governed by the Saskatchewan OBPS-ETS and the final 2023 results were validated by the Ministry of Environment.
[Fixed row]

(3.5.4) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

In 2016, the Canadian federal government announced it's pan-Canada approach to price (tax) carbon emissions in all Canadian jurisdictions by 2018. In 2018, the federal government enacted the Greenhouse Gas Pollution Pricing Act with a minimum price of carbon set at 20/tonne by 2019 and developed national stringency standards known as a federal benchmark. Provinces and territories can develop their own carbon pricing system however, it must meet or exceed the federal benchmark and receive approval from the federal government, otherwise, provinces will fall under the federal Output Based Pricing System (OBPS)..In 2020, the federal government released an updated carbon pricing plan where the price of carbon increases 15/tonne/year reaching 170/tonne by 2030. As of January 1, 2023, the price of carbon is 65 per tonne CAD.In 2021, the federal government released strengthened stringency standards for 2023-2030 reporting period with a review planned for 2026 reporting period. A revised provincial OBPS program was submitted by Saskatchewan to the federal government in 2022, which was subsequently approved in November 2022. Our Saskatchewan Potash facilities are subject to the Saskatchewan OBPS program regarding emissions at our facilities; however, indirect costs from the carbon tax associated with electricity, natural gas consumption, and transportation are currently passed through to Mosaic. As implementation of the Paris Agreement proceeds, more stringent laws and regulations may be enacted to accomplish the goals set out in Canada's NDC. Mosaic will continue to work with the Saskatchewan Ministry of Environment, Environment and Climate Change Canada and other government stakeholders, through participation in industry associations as changes evolve in the associated carbon and energy related regulatory and policy framework to determine the remaining regulatory details. We will also continue to monitor developments relating to proposed legislation, as well as the potential future effect on our operating activities, energy, raw material and transportation costs, results of operations, liquidity or capital resources. In the meantime, we are complying by paying embedded carbon costs that are passed through to us by utilities and rail providers; we will also stay in compliance by paying carbon obligations owed through the provincial OBPS program. In advance of the government's 2030 targeted reduction, our facilities are complying by actively working toward companywide 2025 ESG Performance Targets to reduce GHGs per tonne of product; longer term, we are also contributing to companywide net-zero targets (announced in Dec. 2021). Our plan is to achieve net-zero emissions companywide by 2040, with achieving Florida milestone emission total by 2030 (considered two separate targets previously); we have a short-term target to reduce emissions by 20% per tonne of product by 2025, which have reduced our emissions by 3% since baseline. Other efficiency projects and large-scale projects and partnerships that have the potential to drive further reductions in GHG emissions are under consideration, including the installation of boilers that will reduce NOx emissions and have the potential to reduce GHGs; and implementation of carbon capture and storage (CCUS). Our approach to engagement on CCUS in the hopes of progressing it for our site is cross-functional in nature and includes government, industry and other parties.

(3.6) Have you identified any environmental opportunities which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future?

	Environmental opportunities identified
Climate change	*Select from:* ☑ Yes, we have identified opportunities, and some/all are being realized
Water	*Select from:* ☑ Yes, we have identified opportunities, and some/all are being realized

[Fixed row]

(3.6.1) Provide details of the environmental opportunities identified which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future.

Climate change

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp1

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Markets

☑ Expansion into new markets

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Downstream value chain

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Brazil

(3.6.1.8) Organization specific description

Climate change is expected to have significant effects on agriculture, potentially impacting food security. This increased pressure on stakeholders to maintain agricultural productivity despite an increase in abiotic stressors driven by climate change (heat, drought, floods, etc.) presents an opportunity to Mosaic in the form of new and emerging product markets (and thus a financial benefit from new revenue sources). For example, Brazil, one of Mosaic's key markets, representing net sales of approximately 5.7 billion in 2023, leads the world in production of key staple crops including soybean and corn. As climate conditions change, biological products we're developing could be crucial for maintaining crop resilience. We've invested in research and innovative products, like MPasto Nitro, a high concentration nitrogen fertilizer launched in Brazil, where 60% of pastureland is considered degraded to some extent. This product optimizes land use, promotes livestock intensification, and reduces environmental impact, potentially leading to better economic returns. It's associated with 30% fewer GHGs compared to traditional fertilizers.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Increased revenues through access to new and emerging markets

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Medium-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ About as likely as not (33–66%)

(3.6.1.12) Magnitude

Select from:

☑ Medium

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Mosaic is evaluating and developing technologies with nutrient release profiles that align more closely with crop needs and are more suitable for changes in weather patterns. Market research purchased by Mosaic suggests that the size of the biologicals market is expected to grow to roughly 3 billion by 2027. The solutions Mosaic is developing are part of a subset of the biologicals market, referred to as microbials.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ Yes

(3.6.1.23) Explanation of financial effect figures

Mosaic is evaluating and developing technologies with nutrient release profiles that align more closely with crop needs and are more suitable for changes in weather patterns. Market research purchased by Mosaic suggests that the size of the biologicals market is expected to grow to roughly 3 billion by 2027. The solutions Mosaic is developing are part of a subset of the biologicals market, referred to as microbials.

(3.6.1.24) Cost to realize opportunity

54400000

(3.6.1.25) Explanation of cost calculation

In order to manage important market opportunities like this one, in 2019 we formed a strategy and growth team, led by a Senior Vice President that reports directly to Mosaic's CEO, to pursue diverse opportunities and yield mutual benefits for Mosaic and its customers. The group was, in 2023, exploring products and solutions that address myriad agricultural challenges, some of which are driven by increasing climate-related risks and opportunities, like a plant's ability to thrive in increasingly stressful conditions (drought, changing temperatures, etc.). In the last four years (including 2023) our total cumulative invested approximately 54.4 million in R&D agreements, equity investments and venture capital investments progressing this work to develop new agricultural solutions, which is the value we are citing as the cost to realize this opportunity.

(3.6.1.26) Strategy to realize opportunity

In 2021 we announced a new agreement to develop and launch agricultural solutions, including a nutrient efficiency product and a nitrogen-fixing microbial product (microbials), that contribute to soil health in diverse applications and have positive environmental benefits. We anticipates solutions like these becoming increasingly important to global food security as pressure builds on agricultural stakeholders to maintain agricultural productivity despite an increase in abiotic stressors driven by climate change (heat, drought, floods, etc.), Some of the opportunities associated with this strategy could be realized in the short-term (within four years), namely the *commercialization of new product solutions, but as noted above, the potential impact figure is based on market research out to 2027 (considered medium-term based), which is the year the market is expected to reach 1.2 billion. In Brazil, where approximately 60 percent of pastureland is considered degraded to some extent, we launched MPasto Nitro in 2020, a high concentration nitrogen fertilizer containing stabilized urea with a urease inhibitor. MPasto Nitro optimizes use of the land and promotes livestock intensification, which translates to greater productivity and more efficient use of natural resources — thus reducing the impact of livestock systems on the environment and enabling better economic returns. MPasto Nitro is associated with 30 percent fewer GHGs when compared to traditional fertilizers used for pasture fertilization. Mosaic promotes the use of agricultural best practices by supporting research and advancing educational outreach on practices that reduce GHG emissions and other environmental impacts associated with the use of crop nutrient products. Further, Mosaic supports the reduction of GHG emissions and other environmental impacts from the global food supply by encouraging stakeholders to enhance their understanding, adoption and promotion of 4R Nutrient Stewardship. In Brazil, Mosaic partners with Embrapa (Brazil's Agricultural Research Company) in the Bifequali Tech Transfer Program, which aims at educating farmers and ranchers on best practices to use fertilizer in pastureland, thus promoting integrated crop-livestock systems that reduces GHG emission from livestock production.*

Water

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp1

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Resource efficiency

☑ Other resource efficiency opportunity, please specify **:**Improved water efficiency.

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Brazil

☑ United States of America

(3.6.1.6) River basin where the opportunity occurs

Select all that apply

☑ Mississippi River

☑ Other, please specify :La Plata; Alafia; Peace

(3.6.1.8) Organization specific description

Mining and manufacturing of phosphate fertilizers are typically water intensive processes. The management of water to minimize use and maximize recycling is key to Mosaic to promote water security and manage risk e.g., by improving our efficiency and using less water in our mining and fertilizer manufacturing processes, we reduce risk and costs associated with pumping, treating and storing water. We're realizing this opportunity with water management programs, which include specific facility and segment initiatives to decrease our water footprint. This includes a 2025 goal to reduce freshwater use by 20% per tonne of finished product. In 2021 one of our mine sites in Brazil installed a network of pipeline and containment ponds to help maximize the site's use of alternative water supplies and minimize its reliance on freshwater sources, resulting in a reduction of over 10% in freshwater use for that site alone. The cost of the initiative, which entailed installation of pipelines, pumps and containment ponds, was around 1.9 million. This example is still pertinent to this reporting cycle. Several Florida manufacturing facilities use reverse osmosis (RO), offsetting freshwater use and saving costs through reduced reagent use. We used RO to recycle more than 250 gal/min back for use at the Bartow facility's sulfuric acid plant in 2023 at a cost of 6.1 million. We have ESG site leads in North America who meet regularly to identify projects and track progress toward 2025 targets.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Reduced indirect (operating) costs

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Long-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ Likely (66–100%)

(3.6.1.12) Magnitude

Select from:

☑ Medium-low

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

The total financial impact associated with our improved water efficiency is hard to estimate. However, in 2021 we advanced work to establish a theoretical cost of water that takes into account a full suite of costs, indirect and direct, that are associated with our withdrawal, use, treatment, storage and long-term management of water. Based on a theoretical example (which has yet to be finalized as of the date of this report), by reducing water use in our Phosphate business by approximately 10%, we could potentially achieve savings upward of 20 million. This example is still pertinent for this reporting cycle.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ Yes

(3.6.1.21) Anticipated financial effect figure in the long-term - minimum (currency)

20000000

(3.6.1.22) Anticipated financial effect figure in the long-term – maximum (currency)

20000000

(3.6.1.23) Explanation of financial effect figures

The total financial impact associated with our improved water efficiency is hard to estimate. However, in 2021 we advanced work to establish a theoretical cost of water that takes into account a full suite of costs, indirect and direct, that are associated with our withdrawal, use, treatment, storage and long-term management of water. Based on a theoretical example (which has yet to be finalized as of the date of this report), by reducing water use in our Phosphate business by approximately 10%, we could potentially achieve savings upward of 20 million. This example is still pertinent for this reporting cycle.

(3.6.1.24) Cost to realize opportunity

6100000

(3.6.1.25) Explanation of cost calculation

Several Florida manufacturing facilities use reverse osmosis, offsetting freshwater use and saving costs through reduced reagent use. We used reverse osmosis (RO) to recycle more than 250 gal/min back for use at the Bartow facility's sulfuric acid plant in 2023 at a cost of 6.1 million. We have ESG site leads in North America who meet regularly to identify projects and track progress toward 2025 targets.

(3.6.1.26) Strategy to realize opportunity

Several Florida manufacturing facilities use reverse osmosis, offsetting freshwater use and saving costs through reduced reagent use. We used RO to recycle more than 250 gal/min back for use at the Bartow facility's sulfuric acid plant in 2023 at a cost of 6.1 million. We have ESG site leads in North America who meet regularly to identify projects and track progress toward 2025 targets.

Climate change

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp2

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Products and services

☑ Shift in consumer preferences

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Downstream value chain

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Canada

(3.6.1.8) Organization specific description

Mosaic sells its products to customers in 40 countries and is one of the world's largest suppliers of crop nutrients. Changes in the length of growing seasons in certain regions, like portions of Canada, may increase the productivity of some crops, which could improve the productivity of agriculture and result in an increased demand for agricultural inputs like the crop nutrients Mosaic supplies. For reference, our net sales to Canada in 2023 were approximately 412 million, or roughly 3% of companywide net sales in 2023. In a scenario where certain growing region could become more productive due to climate change, Mosaic could see increased demand for crop nutrients, namely higher-yield fertilizer products like MicroEssentials and other performance products such as our PowerCoat biological fertilizer complement, which could have a positive effect on our operating results and financial condition. Increasing extremes of temperature and precipitation impede plant growth, decrease yields, and lead to soil erosion. We are committed to developing nutrients that help crops become more resistant to weather extremes and help farmers maximize the efficiency of their farmland. As an example, our PowerCoat Biological Fertilizer Complement has been developed to optimize yield potential and nutrient use efficiency. PowerCoat contains strains of naturally occurring Plant Growth Promoting Rhizobacteria (PGPR), formulated to improve plant growth and helping maximize resiliency.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Increased revenues resulting from increased demand for products and services

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Long-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ About as likely as not (33–66%)

(3.6.1.12) Magnitude

Select from:

☑ Medium-high

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Our company had sales of approximately 2.5 billion of performance products, a category which includes MicroEssentials, during 2023. A hypothetical increase of 10% in sales volume of performance products, including MicroEssentials, from 2021 levels could result in about 250 million in added revenue (calculated by multiplying 2023 performance product sales of 2.5 billion from Form 10-K by 110%).

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ Yes

(3.6.1.21) Anticipated financial effect figure in the long-term - minimum (currency)

250000000

(3.6.1.22) Anticipated financial effect figure in the long-term – maximum (currency)

250000000

(3.6.1.23) Explanation of financial effect figures

Our company had sales of approximately 2.5 billion of performance products, a category which includes MicroEssentials, during 2023. A hypothetical increase of 10% in sales volume of performance products, including MicroEssentials, from 2021 levels could result in about 250 million in added revenue (calculated by multiplying 2023 performance product sales of 2.5 billion from Form 10-K by 110%).

(3.6.1.24) Cost to realize opportunity

3000000

(3.6.1.25) Explanation of cost calculation

This cost is associated to small plot trials conducted in Argentina, Brazil, Chile, China, Canada, India, Northern Latin America (Mexico to Peru), Turkey and the United States in 2023.

(3.6.1.26) Strategy to realize opportunity

Mosaic's balanced approach to crop nutrition is a strategy to manage potential opportunities driven by the effects of climate change, such as change in temperature and the length of growing season. Mosaic has established relationships with key universities and research organizations around the globe to develop and test innovative products like our MicroEssentials line, which features crop nutrient blends specially designed for the soils of various parts of the world. In 2023 we *conducted approximately 2300 small plot trials in Argentina, Brazil, Chile, China, Canada, India, Northern Latin America (Mexico to Peru), Turkey and the United States. The benefits of small plot trials and research are data and outcomes we can use to inform Mosaic's agronomy activities and our sales/commercial strategy, which could ultimately contribute to higher sales of performance products. For example, we are analyzing the potential benefits of synergy of Mosaic's phosphate and potash performance products in different soils to support our product portfolio; we are also assessing micronutrient addition and their uptake in various soil conditions. The cost associated with conducting more than 2300 trials in 2023 was approximately 3 million.*

Water

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp2

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Reputational capital

☑ Reputational benefits resulting in increased demand for products/services

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Downstream value chain

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ United States of America

(3.6.1.6) River basin where the opportunity occurs

Select all that apply

☑ Mississippi River

(3.6.1.8) Organization specific description

One of Mosaic's strategic community investment focus areas is water, which is aligned to our strategy because water issues, including availability of water resources for agriculture and the issue of water stewardship and agricultural runoff have the potential to affect demand for our products or our license to operate. We seek long-term partnerships with organizations that are making a difference through collective action in watershed restoration, habitat conservation and nutrient stewardship. For example, in 2023, The Mosaic Company Foundation invested 200,000 to support on-farm improvements for rice growers in the Mississippi Alluvial Valley. Our support of this collective partnership, which stems from a desire to promote nutrient stewardship, will contribute to reduced levels of nutrients lost to the Mississippi River. In addition to delivering water quality improvements, partnerships like these may have a positive impact on Mosaic's reputation.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Increased revenues through access to new and emerging markets

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ About as likely as not (33–66%)

(3.6.1.12) Magnitude

Select from:

☑ Medium-low

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

The potential reputational impacts associated with this Mosaic partnership and others are hard to quantify, but assuming a 10% return on our 200,000 annual investment, the impact associated with this opportunity would be 20,000.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ Yes

(3.6.1.17) Anticipated financial effect figure in the short-term - minimum (currency)

20000

(3.6.1.18) Anticipated financial effect figure in the short-term – maximum (currency)

20000

(3.6.1.23) Explanation of financial effect figures

The potential reputational impacts associated with this Mosaic partnership and others are hard to quantify, but assuming a 10% return on our 200,000 annual investment, the impact associated with this opportunity would be 20,000.

(3.6.1.24) Cost to realize opportunity

200000

(3.6.1.25) Explanation of cost calculation

Cost based on Mosaic Company Foundation investment of 200,000 to support on-farm improvements for rice growers in the Mississippi Alluvial Valley.

(3.6.1.26) Strategy to realize opportunity

One of Mosaic's strategic community investment focus areas is water, which is aligned to our strategy because water issues, including availability of water resources for agriculture and the issue of water stewardship and agricultural runoff have the potential to affect demand for our products or our license to operate. We seek long-term partnerships with organizations that are making a difference through collective action in watershed restoration, habitat conservation and nutrient stewardship. For example, in 2023, The Mosaic Company Foundation invested 200,000 to support on-farm improvements for rice growers in the Mississippi Alluvial Valley. Our support of this collective partnership, which stems from a desire to promote nutrient stewardship, will contribute to reduced levels of nutrients lost to the Mississippi River. In addition to delivering water quality improvements, partnerships like these may have a positive impact on Mosaic's reputation.
[Add row]

(3.6.2) Provide the amount and proportion of your financial metrics in the reporting year that are aligned with the substantive effects of environmental opportunities.

Climate change

(3.6.2.1) Financial metric

Select from:

☑ Revenue

(3.6.2.2) Amount of financial metric aligned with opportunities for this environmental issue (unit currency as selected in 1.2)

470000000

(3.6.2.3) % of total financial metric aligned with opportunities for this environmental issue

Select from:

☑ 1-10%

(3.6.2.4) Explanation of financial figures

In the year ended December 31, 2023, we spent approximately 470 million for environmental capital expenditures, land reclamation activities, Gypstack closure and water treatment activities. These expenditures are associated with our compliance efforts.

Water

(3.6.2.1) Financial metric

Select from:

☑ Revenue

(3.6.2.2) Amount of financial metric aligned with opportunities for this environmental issue (unit currency as selected in 1.2)

470000000

(3.6.2.3) % of total financial metric aligned with opportunities for this environmental issue

Select from:

☑ 1-10%

(3.6.2.4) Explanation of financial figures

In the year ended December 31, 2023, we spent approximately 470 million for environmental capital expenditures, land reclamation activities, Gypstack closure and water treatment activities. These expenditures are associated with our compliance efforts.

Water

(3.6.2.1) Financial metric

Select from:

☑ Revenue

(3.6.2.2) Amount of financial metric aligned with opportunities for this environmental issue (unit currency as selected in 1.2)

1000000

(3.6.2.3) % of total financial metric aligned with opportunities for this environmental issue

Select from:

☑ Less than 1%

(3.6.2.4) Explanation of financial figures

At our Carlsbad facility, Mosaic is permitted to withdraw volumes of groundwater beyond those needed to meet our production needs. We have arrangements with nearby businesses to sell that water for commercial use. (Note, this water supply does not affect freshwater supplies in the area.) The financial benefit of this arrangement to Mosaic is more than 1 million annually.

[Add row]

C4. Governance

(4.1) Does your organization have a board of directors or an equivalent governing body?

(4.1.1) Board of directors or equivalent governing body

Select from:

☑ Yes

(4.1.2) Frequency with which the board or equivalent meets

Select from:

☑ Quarterly

(4.1.3) Types of directors your board or equivalent is comprised of

Select all that apply

☑ Executive directors or equivalent

☑ Independent non-executive directors or equivalent

(4.1.4) Board diversity and inclusion policy

Select from:

☑ Yes, and it is publicly available

(4.1.5) Briefly describe what the policy covers

The Board of Directors considers the qualifications of each director candidate and the overall composition of the Board. We are committed to diversity and a balance of tenure that brings experience as well as new perspectives to Board deliberations. Independent Directors. 91% of our directors are independent. All of the members of our Audit, Compensation and Human Resources and Corporate Governance and Nominating Committees are independent.

(4.1.6) Attach the policy (optional)

mos-2023-proxy-statement-final-bookmarked.pdf
[Fixed row]

(4.1.1) Is there board-level oversight of environmental issues within your organization?

	Board-level oversight of this environmental issue
Climate change	*Select from:* ☑ Yes
Water	*Select from:* ☑ Yes
Biodiversity	*Select from:* ☑ Yes

[Fixed row]

(4.1.2) Identify the positions (do not include any names) of the individuals or committees on the board with accountability for environmental issues and provide details of the board's oversight of environmental issues.

Climate change

(4.1.2.1) Positions of individuals or committees with accountability for this environmental issue

Select all that apply
☑ Board-level committee

(4.1.2.2) Positions' accountability for this environmental issue is outlined in policies applicable to the board

Select from:

☑ Yes

(4.1.2.3) Policies which outline the positions’ accountability for this environmental issue

Select all that apply

☑ Other policy applicable to the board, please specify :Commitment to Climate Change

(4.1.2.4) Frequency with which this environmental issue is a scheduled agenda item

Select from:

☑ Scheduled agenda item in some board meetings – at least annually

(4.1.2.5) Governance mechanisms into which this environmental issue is integrated

Select all that apply

☑ Reviewing and guiding annual budgets

☑ Monitoring progress towards corporate targets

☑ Reviewing and guiding innovation/R&D priorities

☑ Approving and/or overseeing employee incentives

☑ Overseeing and guiding major capital expenditures

☑ Overseeing and guiding the development of a business strategy

☑ Reviewing and guiding the assessment process for dependencies, impacts, risks, and opportunities

(4.1.2.7) Please explain

In preparation for quarterly meetings with the EHSS Committee, Mosaic personnel prepare updates related to our EHSS goals, commitments and compliance obligations. The EHSS Committee communicates with Mosaic’s management team on the development and oversight of climate-related targets (energy and GHGs) and the pathways (projects, CapEx investments, production considerations) for achieving them in alignment with our statement of support for climate change. Because emissions-reduction targets are an instrument through which Mosaic strives for risk management and companywide performance improvement in climate-related areas, the EHSS Committee's review and guidance of our targets strategy directly contributes to oversight of these issues. The Committee is also regularly kept apprised of related regulatory developments pertaining to the implementation of a carbon tax that impacts our Saskatchewan, Canada facilities.

Water

(4.1.2.1) Positions of individuals or committees with accountability for this environmental issue

Select all that apply

☑ Board-level committee

(4.1.2.2) Positions' accountability for this environmental issue is outlined in policies applicable to the board

Select from:

☑ Yes

(4.1.2.3) Policies which outline the positions' accountability for this environmental issue

Select all that apply

☑ Other policy applicable to the board, please specify :Commitment to Water Stewardship

(4.1.2.4) Frequency with which this environmental issue is a scheduled agenda item

Select from:

☑ Scheduled agenda item in some board meetings – at least annually

(4.1.2.5) Governance mechanisms into which this environmental issue is integrated

Select all that apply

☑ Reviewing and guiding annual budgets

☑ Overseeing the setting of corporate targets

☑ Monitoring progress towards corporate targets

☑ Approving corporate policies and/or commitments

☑ Reviewing and guiding innovation/R&D priorities

☑ Approving and/or overseeing employee incentives

☑ Overseeing and guiding major capital expenditures

☑ Monitoring the implementation of the business strategy

☑ Overseeing and guiding the development of a business strategy

☑ Monitoring compliance with corporate policies and/or commitments

☑ Reviewing and guiding the assessment process for dependencies, impacts, risks, and opportunities

(4.1.2.7) Please explain

Mosaic personnel prepare updates related to our target performance (freshwater use) for the quarterly EHSS Committee's review. The EHSS Committee communicates with Mosaic's management team on the development and oversight of water-related targets (freshwater use and environmental incidents). Because

targets are an instrument through which Mosaic strives for risk management and companywide performance improvement in climate-related areas, the EHSS Committee's review and guidance of our targets strategy directly contribute to oversight of these issues. The EHSS Committee is also regularly kept apprised of risks and regulatory developments pertaining to various water-related impacts on our company, in alignment with the commitment to water stewardship.
[Fixed row]

(4.2) Does your organization's board have competency on environmental issues?

Climate change

(4.2.1) Board-level competency on this environmental issue

Select from:
☑ Yes

(4.2.2) Mechanisms to maintain an environmentally competent board

Select all that apply
☑ Consulting regularly with an internal, permanent, subject-expert working group
☑ Engaging regularly with external stakeholders and experts on environmental issues
☑ Integrating knowledge of environmental issues into board nominating process
☑ Having at least one board member with expertise on this environmental issue

(4.2.3) Environmental expertise of the board member

Academic
☑ Undergraduate education (e.g., BSc/BA in environment and sustainability, climate science, environmental science, water resources management, environmental engineering, forestry, etc.), please specify

Experience
☑ Executive-level experience in a role focused on environmental issues
☑ Management-level experience in a role focused on environmental issues
☑ Staff-level experience in a role focused on environmental issues
☑ Experience in an organization that is exposed to environmental-scrutiny and is going through a sustainability transition

☑ Active member of an environmental committee or organization

Water

(4.2.1) Board-level competency on this environmental issue

Select from:

☑ Yes

(4.2.2) Mechanisms to maintain an environmentally competent board

Select all that apply

☑ Consulting regularly with an internal, permanent, subject-expert working group

☑ Engaging regularly with external stakeholders and experts on environmental issues

☑ Integrating knowledge of environmental issues into board nominating process

☑ Having at least one board member with expertise on this environmental issue

(4.2.3) Environmental expertise of the board member

Academic

☑ Undergraduate education (e.g., BSc/BA in environment and sustainability, climate science, environmental science, water resources management, environmental engineering, forestry, etc.), please specify

Experience

☑ Executive-level experience in a role focused on environmental issues

☑ Management-level experience in a role focused on environmental issues

☑ Staff-level experience in a role focused on environmental issues

☑ Experience in an organization that is exposed to environmental-scrutiny and is going through a sustainability transition

☑ Active member of an environmental committee or organization

[Fixed row]

(4.3) Is there management-level responsibility for environmental issues within your organization?

	Management-level responsibility for this environmental issue
Climate change	*Select from:* ☑ Yes
Water	*Select from:* ☑ Yes
Biodiversity	*Select from:* ☑ Yes

[Fixed row]

(4.3.1) Provide the highest senior management-level positions or committees with responsibility for environmental issues (do not include the names of individuals).

Climate change

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Chief Executive Officer (CEO)

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Policies, commitments, and targets

☑ Measuring progress towards environmental corporate targets

Strategy and financial planning

☑ Developing a business strategy which considers environmental issues

Other

☑ Providing employee incentives related to environmental performance

(4.3.1.4) Reporting line

Select from:

☑ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Quarterly

(4.3.1.6) Please explain

Mosaic considers decarbonization a priority and as such climate-related responsibilities are a responsibility of the highest management level within the company. The process of monitoring climate-related issues and progress is undertaken through the ESG Steering committee which is tasked with regularly (bi-monthly) updating the CEO. The development of a Climate Transition Plan will be dependent on Chemicals Sector Decarbonization Guidance development.

Water

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Chief Executive Officer (CEO)

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Policies, commitments, and targets

☑ Setting corporate environmental targets

(4.3.1.4) Reporting line

Select from:

☑ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Quarterly

(4.3.1.6) Please explain

Mosaic considers water governance a priority; accordingly, climate-related responsibilities are a responsibility of the highest management level within the company. The process of monitoring climate-related issues and progress is undertaken through the ESG Steering committee which is tasked with regularly (bi-monthly) updating the CEO. By having a water intensity reduction target, tied to compensation, this promotes company-wide participation in improving water performance.

Biodiversity

(4.3.1.6) Please explain

Protection of biodiversity is critical to global sustainable development and a significant component of Mosaic's sustainability efforts. In both our phosphate and potash operations in the United States, Canada and Brazil, prior to the start of mining — or when extending or expanding a mine — permits are secured from local, regional, state and federal government agencies. This rigorous planning and approval process protects water, air, ecology, wildlife, transportation, safety and other environmental, health, and public welfare considerations. Members of our executive team, who directly lead the businesses responsible for the day-to-day work related to biodiversity management, provide oversight of the rigorous permitting and stakeholder engagement processes. Mosaic will provide more details on biodiversity governance and management in the 2025 CDP response.

[Add row]

(4.5) Do you provide monetary incentives for the management of environmental issues, including the attainment of targets?

Climate change

(4.5.1) Provision of monetary incentives related to this environmental issue

Select from:

☑ Yes

(4.5.2) % of total C-suite and board-level monetary incentives linked to the management of this environmental issue

15

(4.5.3) Please explain

Performance measures for all members of Mosaic's executive and management teams and all salaried employees are based on financial and operational performance, including operating earnings, operating costs per tonne, selling, general and administrative expenses and certain EHS metrics. Climate change is indirectly linked to compensation through operating cost savings that are achieved through site-specific initiatives and companywide programs aimed at reducing energy use and emissions. Further, annual incentive compensation is tied to climate through a management system effectiveness/risk reduction measure, the elements of which promote environmental, health, safety and sustainability behaviors and objectives. Sustainability performance, including reduction of GHGs and water withdrawals, are covered by the risk reduction program. In 2023, a 15% weighting was given to ESG performance.

Water

(4.5.1) Provision of monetary incentives related to this environmental issue

Select from:

☑ Yes

(4.5.2) % of total C-suite and board-level monetary incentives linked to the management of this environmental issue

15

(4.5.3) Please explain

Performance measures for all members of Mosaic's executive and management teams and all salaried employees are based on financial and operational performance, including operating earnings, operating costs per tonne, selling, general and administrative expenses and certain EHS and sustainability targets. Mosaic's water sustainability target is to reduce freshwater use by 20% per tonne of product by 2025. In 2023, a 15% weighting was given to ESG performance.
[Fixed row]

(4.5.1) Provide further details on the monetary incentives provided for the management of environmental issues (do not include the names of individuals).

Climate change

(4.5.1.1) Position entitled to monetary incentive

Board or executive level

☑ Corporate executive team

(4.5.1.2) Incentives

Select all that apply

☑ Bonus - % of salary

(4.5.1.3) Performance metrics

Targets

☑ Progress towards environmental targets

Emission reduction

☑ Reduction in emissions intensity

(4.5.1.4) Incentive plan the incentives are linked to

Select from:
☑ Short-Term Incentive Plan, or equivalent, only (e.g. contractual annual bonus)

(4.5.1.5) Further details of incentives

Performance measures for members of Mosaic's executive and management teams and all salaried employees are based on financial and operational performance, including operating earnings, operating costs per tonne, selling, general and administrative expenses and certain EHS metrics. Climate change is indirectly linked to compensation through operating cost savings that are achieved through site-specific initiatives and companywide programs aimed at reducing energy use and emissions. Further, annual incentive compensation is tied to climate through a management system effectiveness/risk reduction measure, the elements of which promote environmental, health, safety and sustainability behaviors and objectives. Sustainability performance, including reduction of GHGs and water withdrawals, are covered by the risk reduction program.

(4.5.1.6) How the position's incentives contribute to the achievement of your environmental commitments and/or climate transition plan

Mosaic is committed to a decarbonization strategy that includes ambitious targets, including a net zero carbon target. Climate change is indirectly linked to compensation through operating cost savings that are achieved through site-specific initiatives and companywide programs aimed at reducing energy use and emissions. Further, annual incentive compensation is tied to climate through a management system effectiveness/risk reduction measure, the elements of which promote environmental, health, safety and sustainability behaviors and objectives. Sustainability performance, including reduction of GHGs and water withdrawals, are covered by the risk reduction program.

Water

(4.5.1.1) Position entitled to monetary incentive

Board or executive level
☑ Chief Executive Officer (CEO)

(4.5.1.2) Incentives

Select all that apply
☑ Bonus - % of salary

(4.5.1.3) Performance metrics

Resource use and efficiency

☑ Reduction of water withdrawals – direct operations

☑ Reduction in water consumption volumes – direct operations

☑ Improvements in water efficiency – direct operations

Pollution

☑ Reduction of water pollution incidents

Engagement

☑ Increased engagement with suppliers on environmental issues

☑ Implementation of employee awareness campaign or training program on environmental issues

(4.5.1.4) Incentive plan the incentives are linked to

Select from:

☑ Short-Term Incentive Plan, or equivalent, only (e.g. contractual annual bonus)

(4.5.1.5) Further details of incentives

Annual incentive compensation is tied to reduction of water withdrawals through a management system effectiveness/risk reduction measure, the elements of which promote environmental, health, safety and sustainability behaviors and objectives. Sustainability performance, including reduction of GHGs and water withdrawals, are covered by the risk reduction program.

(4.5.1.6) How the position's incentives contribute to the achievement of your environmental commitments and/or climate transition plan

Performance measures for members of Mosaic's executive and management teams and all salaried employees are based on financial and operational performance, including operating earnings, operating costs per tonne, selling, general and administrative expenses and certain EHS and sustainability targets. Mosaic's water sustainability target is to reduce freshwater use by 20% per tonne of product by 2025.

Climate change

(4.5.1.1) Position entitled to monetary incentive

Board or executive level

☑ Chief Executive Officer (CEO)

(4.5.1.2) Incentives

Select all that apply

☑ Bonus - % of salary

(4.5.1.3) Performance metrics

Targets

☑ Progress towards environmental targets

Emission reduction

☑ Reduction in emissions intensity

(4.5.1.4) Incentive plan the incentives are linked to

Select from:

☑ Short-Term Incentive Plan, or equivalent, only (e.g. contractual annual bonus)

(4.5.1.5) Further details of incentives

Performance measures for members of Mosaic's executive and management teams and all salaried employees are based on financial and operational performance, including operating earnings, operating costs per tonne, selling, general and administrative expenses and certain EHS metrics. Climate change is indirectly linked to compensation through operating cost savings that are achieved through site-specific initiatives and companywide programs aimed at reducing energy use and emissions. Further, annual incentive compensation is tied to climate through a management system effectiveness/risk reduction measure, the elements of which promote environmental, health, safety and sustainability behaviors and objectives. Sustainability performance, including reduction of GHGs and water withdrawals, are covered by the risk reduction program.

(4.5.1.6) How the position's incentives contribute to the achievement of your environmental commitments and/or climate transition plan

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Water

(4.5.1.1) Position entitled to monetary incentive

Board or executive level

☑ Chief Financial Officer (CFO)

(4.5.1.2) Incentives

Select all that apply

☑ Bonus - % of salary

(4.5.1.3) Performance metrics

Resource use and efficiency

☑ Reduction of water withdrawals – direct operations

☑ Reduction in water consumption volumes – direct operations

☑ Improvements in water efficiency – direct operations

Pollution

☑ Reduction of water pollution incidents

Engagement

☑ Increased engagement with suppliers on environmental issues

☑ Implementation of employee awareness campaign or training program on environmental issues

(4.5.1.4) Incentive plan the incentives are linked to

Select from:
☑ Short-Term Incentive Plan, or equivalent, only (e.g. contractual annual bonus)

(4.5.1.5) Further details of incentives

Annual incentive compensation is tied to reduction of water withdrawals through a management system effectiveness/risk reduction measure, the elements of which promote environmental, health, safety and sustainability behaviors and objectives. Sustainability performance, including reduction of GHGs and water withdrawals, are covered by the risk reduction program.

(4.5.1.6) How the position's incentives contribute to the achievement of your environmental commitments and/or climate transition plan

Performance measures for members of Mosaic's executive and management teams and all salaried employees are based on financial and operational performance, including operating earnings, operating costs per tonne, incentive selling, general and administrative expenses and certain EHS and sustainability targets. Mosaic's water sustainability target is to reduce freshwater use by 20% per tonne of product by 2025.

Water

(4.5.1.1) Position entitled to monetary incentive

Board or executive level
☑ Chief Operating Officer (COO)

(4.5.1.2) Incentives

Select all that apply
☑ Bonus - % of salary

(4.5.1.3) Performance metrics

Resource use and efficiency
☑ Reduction of water withdrawals – direct operations
☑ Reduction in water consumption volumes – direct operations
☑ Improvements in water efficiency – direct operations

Pollution

☑ Reduction of water pollution incidents

Engagement

☑ Increased engagement with suppliers on environmental issues

☑ Implementation of employee awareness campaign or training program on environmental issues

(4.5.1.4) Incentive plan the incentives are linked to

Select from:

☑ Short-Term Incentive Plan, or equivalent, only (e.g. contractual annual bonus)

(4.5.1.5) Further details of incentives

Annual incentive compensation is tied to reduction of water withdrawals through a management system effectiveness/risk reduction measure, the elements of which promote environmental, health, safety and sustainability behaviors and objectives. Sustainability performance, including reduction of GHGs and water withdrawals, are covered by the risk reduction program.

(4.5.1.6) How the position's incentives contribute to the achievement of your environmental commitments and/or climate transition plan

Performance measures for members of Mosaic's executive and management teams and all salaried employees are based on financial and operational performance, including operating earnings, operating costs per tonne, selling, general and administrative expenses and certain EHS and sustainability targets. Mosaic's water sustainability target is to reduce freshwater use by 20% per tonne of product by 2025.

Water

(4.5.1.1) Position entitled to monetary incentive

Board or executive level

☑ Other C-Suite Officer, please specify :Senior Leadership Team

(4.5.1.2) Incentives

Select all that apply

☑ Bonus - % of salary

(4.5.1.3) Performance metrics

Resource use and efficiency

☑ Reduction of water withdrawals – direct operations

☑ Reduction in water consumption volumes – direct operations

☑ Improvements in water efficiency – direct operations

Pollution

☑ Reduction of water pollution incidents

Engagement

☑ Increased engagement with suppliers on environmental issues

☑ Implementation of employee awareness campaign or training program on environmental issues

(4.5.1.4) Incentive plan the incentives are linked to

Select from:

☑ Short-Term Incentive Plan, or equivalent, only (e.g. contractual annual bonus)

(4.5.1.5) Further details of incentives

Annual incentive compensation is tied to reduction of water withdrawals through a management system effectiveness/risk reduction measure, the elements of which promote environmental, health, safety and sustainability behaviors and objectives. Sustainability performance, including reduction of GHGs and water withdrawals, are covered by the risk reduction program.

(4.5.1.6) How the position’s incentives contribute to the achievement of your environmental commitments and/or climate transition plan

Performance measures for members of Mosaic’s executive and management teams and all salaried employees are based on financial and operational performance, including operating earnings, operating costs per tonne, selling, general and administrative expenses and certain EHS and sustainability targets. Mosaic's water sustainability target is to reduce freshwater use by 20% per tonne of product by 2025.

Water

(4.5.1.1) Position entitled to monetary incentive

Senior-mid management

☑ Other senior-mid manager, please specify :Mosaic's management team and all salaried employees

(4.5.1.2) Incentives

Select all that apply

☑ Bonus - % of salary

(4.5.1.3) Performance metrics

Resource use and efficiency

☑ Reduction of water withdrawals – direct operations

☑ Reduction in water consumption volumes – direct operations

☑ Improvements in water efficiency – direct operations

Pollution

☑ Reduction of water pollution incidents

Policies and commitments

☑ Increased supplier compliance with environmental requirements

Engagement

☑ Implementation of employee awareness campaign or training program on environmental issues

(4.5.1.4) Incentive plan the incentives are linked to

Select from:
☑ Short-Term Incentive Plan, or equivalent, only (e.g. contractual annual bonus)

(4.5.1.5) Further details of incentives

Annual incentive compensation is tied to reduction of water withdrawals through a management system effectiveness/risk reduction measure, the elements of which promote environmental, health, safety and sustainability behaviors and objectives. Sustainability performance, including reduction of GHGs and water withdrawals, are covered by the risk reduction program.

(4.5.1.6) How the position's incentives contribute to the achievement of your environmental commitments and/or climate transition plan

Performance measures for members of Mosaic's executive and management teams and all salaried employees are based on financial and operational performance, including operating earnings, operating costs per tonne, selling, general and administrative expenses and certain EHS and sustainability targets. Mosaic's water sustainability target is to reduce freshwater use by 20% per tonne of product by 2025.

Water

(4.5.1.1) Position entitled to monetary incentive

Senior-mid management
☑ Other senior-mid manager, please specify :Employees

(4.5.1.2) Incentives

Select all that apply
☑ Other, please specify :Non-monetary reward

(4.5.1.3) Performance metrics

Resource use and efficiency
☑ Reduction of water withdrawals – direct operations
☑ Reduction in water consumption volumes – direct operations
☑ Improvements in water efficiency – direct operations

Pollution

☑ Reduction of water pollution incidents

Engagement

☑ Increased engagement with suppliers on environmental issues

☑ Implementation of employee awareness campaign or training program on environmental issues

(4.5.1.4) Incentive plan the incentives are linked to

Select from:

☑ Short-Term Incentive Plan, or equivalent, only (e.g. contractual annual bonus)

(4.5.1.5) Further details of incentives

Employees have been recognized for executing projects that identified innovative ways to reduce water use in the fertilizer manufacturing process.

(4.5.1.6) How the position’s incentives contribute to the achievement of your environmental commitments and/or climate transition plan

Employees are recognized through internal company communication channels for exhibiting Mosaic’s principles of responsibility, innovation, collaboration and drive.
[Add row]

(4.6) Does your organization have an environmental policy that addresses environmental issues?

	Does your organization have any environmental policies?
	Select from: ☑ Yes

[Fixed row]

(4.6.1) Provide details of your environmental policies.

Row 1

(4.6.1.1) Environmental issues covered

Select all that apply

☑ Climate change

☑ Water

(4.6.1.2) Level of coverage

Select from:

☑ Organization-wide

(4.6.1.3) Value chain stages covered

Select all that apply

☑ Direct operations

☑ Upstream value chain

☑ Downstream value chain

(4.6.1.4) Explain the coverage

Several publicly available documents, including our companywide EHS Policy, Sustainability Targets (including water and Net-Zero by 2040), Commitment to Water Stewardship, Statement on Our Leadership on Climate Change, and annual sustainability disclosure, guide Mosaic's environmental performance. We publicly recognize water is a critical natural resource that is essential to the sustainability of our operations, and the communities and ecosystems in which we operate. Transparency and accountability are integral to Mosaic's sustainability journey and help drive improved operational performance in key ESG areas, like water, which has been identified as a material sustainability issue at Mosaic. As stated within our public Commitment to Water Stewardship, our stewardship efforts include investing in water-efficient technologies and automation to drive improved water performance. We are committed to the sustainable production and proper use of our products to mitigate otherwise negative environmental impacts. As a Signatory to the United Nations Global Compact (UNGC), Mosaic is committed to the UNGC and ten universal principles it supports. All our more than 14,000 employees (2023) have access to fully functioning WASH services. Supplier, procurement and contracting elements are covered within our Mosaic Supplier Code of Business Conduct and Ethics.

(4.6.1.5) Environmental policy content

Environmental commitments

☑ Commitment to comply with regulations and mandatory standards

☑ Commitment to engage in integrated, multi-stakeholder landscape (including river basin) initiatives to promote shared sustainability goals

☑ Commitment to stakeholder engagement and capacity building on environmental issues

Climate-specific commitments

☑ Commitment to net-zero emissions

Water-specific commitments

☑ Commitment to reduce water consumption volumes

☑ Other water-related commitment, please specify **:Commitment to align with international frameworks, standards, and widely-recognized water initiatives**

☑ Commitment to reduce water withdrawal volumes

☑ Commitment to control/reduce/eliminate water pollution

☑ Commitment to safely managed WASH in local communities

☑ Commitment to water stewardship and/or collective action

Social commitments

☑ Commitment to promote gender equality and women's empowerment

☑ Commitment to respect internationally recognized human rights

Additional references/Descriptions

☑ Acknowledgement of the human right to water and sanitation

☑ Description of environmental requirements for procurement

☑ Description of membership and financial support provided to organizations that seek to influence public policy

☑ Reference to timebound environmental milestones and targets

(4.6.1.6) Indicate whether your environmental policy is in line with global environmental treaties or policy goals

Select all that apply

☑ Yes, in line with another global environmental treaty or policy goal, please specify :The Mosaic Company supports the 10 principles of the United Nations Global Compact with respect to human rights, labor standards, the environment, and anti-corruption.

(4.6.1.7) Public availability

Select from:

☑ Publicly available

(4.6.1.8) Attach the policy

0-Mosaic-EHS-Policy-Statement.pdf
[Add row]

(4.10) Are you a signatory or member of any environmental collaborative frameworks or initiatives?

(4.10.1) Are you a signatory or member of any environmental collaborative frameworks or initiatives?

Select from:

☑ Yes

(4.10.2) Collaborative framework or initiative

Select all that apply

☑ Global Reporting Initiative (GRI) Community Member

☑ UN Global Compact

☑ Other, please specify :CEBDS (Brazilian subsidiary of WBCSD)

(4.10.3) Describe your organization's role within each framework or initiative

Mosaic is an active member of these organizations and aims to contribute to progression of their ESG initiatives.
[Fixed row]

(4.11) In the reporting year, did your organization engage in activities that could directly or indirectly influence policy, law, or regulation that may (positively or negatively) impact the environment?

(4.11.1) External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the environment

Select all that apply

☑ Yes, we engaged directly with policy makers

☑ Yes, we engaged indirectly through, and/or provided financial or in-kind support to a trade association or other intermediary organization or individual whose activities could influence policy, law, or regulation

(4.11.2) Indicate whether your organization has a public commitment or position statement to conduct your engagement activities in line with global environmental treaties or policy goals

Select from:

☑ Yes, we have a public commitment or position statement in line with global environmental treaties or policy goals

(4.11.3) Global environmental treaties or policy goals in line with public commitment or position statement

Select all that apply

☑ Sustainable Development Goal 6 on Clean Water and Sanitation

(4.11.4) Attach commitment or position statement

Mosaic's Contributions to Sustainable Development.docx

(4.11.5) Indicate whether your organization is registered on a transparency register

Select from:

☑ Unknown

(4.11.8) Describe the process your organization has in place to ensure that your external engagement activities are consistent with your environmental commitments and/or transition plan

Mosaic is a global leader in the crop nutrient industry. 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. This approach is fundamental to addressing climate change and water stewardship challenges, which are key to our operations, communities, and ecosystems we interact with. Mosaic has publicly committed to leadership in climate action and water management, as reflected in our companywide Leadership on Climate Change and extensive water performance reporting documents. Mosaic has a process in place to carefully consider, on a case-by-case basis, the relevance of the engagement opportunities and alignment with our values and business strategies and pursues mutually beneficial partnerships. E.g., we participate in key cross-sector and industry partnerships through membership and Board and/or committee involvement, which allows us to influence the work done by respective organizations in a way that is consistent with our strategy, across all geographies and operating units. 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. Similarly, water is a critical resource that is essential to our operations, as well as the communities and ecosystems in which we operate. Agronomy, EHS, and Public Affairs professionals interact with policymakers and global thought leaders to encourage the transfer of knowledge and to incorporate the latest thinking on sustainability into the Mosaic risk management process. Evaluating our public position relative to the Paris Agreement hinges on the release of SBTi Sectoral Guidance for the Chemical Sector. As a Fortune 500 company, we are vocal about our water commitments and position on water-related issues, which helps avoid situations where we partner with organizations with radically different ideals than ours. In the event of an inconsistency between Mosaic's values and those of an industry association, community partner or cross-sector forum, we would consider opportunities to influence their point of view or discontinuing the relationship.
[Fixed row]

(4.11.1) On what policies, laws, or regulations that may (positively or negatively) impact the environment has your organization been engaging directly with policy makers in the reporting year?

Row 1

(4.11.1.1) Specify the policy, law, or regulation on which your organization is engaging with policy makers

Carbon Tax

(4.11.1.2) Environmental issues the policy, law, or regulation relates to

Select all that apply
☑ Climate change

(4.11.1.3) Focus area of policy, law, or regulation that may impact the environment

Financial mechanisms (e.g., taxes, subsidies, etc.)

☑ Carbon taxes

(4.11.1.4) Geographic coverage of policy, law, or regulation

Select from:

☑ Regional

(4.11.1.5) Country/area/region the policy, law, or regulation applies to

Select all that apply

☑ Canada

(4.11.1.6) Your organization's position on the policy, law, or regulation

Select from:

☑ Oppose

(4.11.1.7) Details of any exceptions and your organization's proposed alternative approach to the policy, law, or regulation

Production of potash in Canada results in lower CO2e emissions per ton of product than the potash produced by the major overseas producers. Canadian potash producers are already subject to higher tax rates, higher shipping costs and higher electricity costs than the world's other major potash producers. Implementation of a carbon tax in Canada places an additional economic burden on Canadian potash producers, reducing their competitiveness and effectively suppressing the marketability of the world's most environmentally friendly potash; while adding to the advantages already enjoyed by the major overseas potash producers. Implementation of the carbon tax will likely cause Canadian potash producers to lose market share due to inevitable operating cost increases. Overseas potash producers are beneficiaries of the Canadian carbon tax, resulting in increased carbon emission intensity from the global potash industry as a whole.

(4.11.1.8) Type of direct engagement with policy makers on this policy, law, or regulation

Select all that apply

☑ Ad-hoc meetings

☑ Participation in voluntary government programs

☑ Responding to consultations

☑ Submitting written proposals/inquiries

(4.11.1.9) Funding figure your organization provided to policy makers in the reporting year relevant to this policy, law, or regulation (currency)

0

(4.11.1.10) Explain the relevance of this policy, law, or regulation to the achievement of your environmental commitments and/or transition plan, how this has informed your engagement, and how you measure the success of your engagement

In 2016, the Canadian federal government announced its pan-Canada approach to price (tax) carbon emissions in all Canadian jurisdictions by 2018. In 2018, the federal government enacted the Greenhouse Gas Pollution Pricing Act with a minimum price of carbon set at 20/tonne by 2019 and developed national stringency standards known as a federal benchmark. Provinces and territories can develop their own carbon pricing system however, it must meet or exceed the federal benchmark and receive approval from the federal government, otherwise, provinces will fall under the federal Output Based Pricing System (OBPS)..In 2020, the federal government released an updated carbon pricing plan where the price of carbon increases 15/tonne/year reaching 170/tonne by 2030. As of January 1, 2023, the price of carbon is 65 per tonne CAD.In 2021, the federal government released strengthened stringency standards for 2023-2030 reporting period with a review planned for 2026 reporting period. A revised provincial OBPS program was submitted by Saskatchewan to the federal government in 2022, which was subsequently approved in November 2022. Our Saskatchewan Potash facilities are subject to the Saskatchewan OBPS program regarding emissions at our facilities; however, indirect costs from the carbon tax associated with electricity, natural gas consumption, and transportation are currently passed through to Mosaic. As implementation of the Paris Agreement proceeds, more stringent laws and regulations may be enacted to accomplish the goals set out in Canada's NDC. Mosaic will continue to work with the Saskatchewan Ministry of Environment, Environment and Climate Change Canada and other government stakeholders, through participation in industry associations as changes evolve in the associated carbon and energy related regulatory and policy framework to determine the remaining regulatory details. We will also continue to monitor developments relating to proposed legislation, as well as the potential future effect on our operating activities, energy, raw material and transportation costs, results of operations, liquidity or capital resources.

(4.11.1.11) Indicate if you have evaluated whether your organization's engagement on this policy, law, or regulation is aligned with global environmental treaties or policy goals

Select from:

☑ Yes, we have evaluated, and it is not aligned

[Add row]

(4.11.2) Provide details of your indirect engagement on policy, law, or regulation that may (positively or negatively) impact the environment through trade associations or other intermediary organizations or individuals in the reporting year.

Row 1

(4.11.2.1) Type of indirect engagement

Select from:

☑ Indirect engagement via a trade association

(4.11.2.4) Trade association

North America

☑ Other trade association in North America, please specify :The Fertilizer Institute

(4.11.2.5) Environmental issues relevant to the policies, laws, or regulations on which the organization or individual has taken a position

Select all that apply

☑ Climate change

☑ Water

(4.11.2.6) Indicate whether your organization's position is consistent with the organization or individual you engage with

Select from:

☑ Consistent

(4.11.2.7) Indicate whether your organization attempted to influence the organization or individual's position in the reporting year

Select from:

☑ Yes, we publicly promoted their current position

(4.11.2.8) Describe how your organization's position is consistent with or differs from the organization or individual's position, and any actions taken to influence their position

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."

(4.11.2.9) Funding figure your organization provided to this organization or individual in the reporting year (currency)

800000

(4.11.2.10) Describe the aim of this funding and how it could influence policy, law or regulation that may impact the environment

The aim of our funding is to amplify the voice of the U.S. fertilizer industry and to contribute to positive public policy, communication, stewardship, sustainability and market intelligence outcomes for the fertilizer industry. TFI funding figure was consistent between 2022 and 2023 (approximately 800K in 2023).

(4.11.2.11) Indicate if you have evaluated whether your organization's engagement is aligned with global environmental treaties or policy goals

Select from:

☑ Yes, we have evaluated, and it is aligned

(4.11.2.12) Global environmental treaties or policy goals aligned with your organization's engagement on policy, law or regulation

Select all that apply

☑ Sustainable Development Goal 6 on Clean Water and Sanitation

Row 2

(4.11.2.1) Type of indirect engagement

Select from:

☑ Indirect engagement via other intermediary organization or individual

(4.11.2.2) Type of organization or individual

Select from:
☑ Research organization

(4.11.2.3) State the organization or position of individual

International Minerals Innovation Institute

(4.11.2.5) Environmental issues relevant to the policies, laws, or regulations on which the organization or individual has taken a position

Select all that apply
☑ Climate change

(4.11.2.6) Indicate whether your organization's position is consistent with the organization or individual you engage with

Select from:
☑ Consistent

(4.11.2.7) Indicate whether your organization attempted to influence the organization or individual's position in the reporting year

Select from:
☑ Yes, we publicly promoted their current position

(4.11.2.8) Describe how your organization's position is consistent with or differs from the organization or individual's position, and any actions taken to influence their position

IMII's major potash and uranium minerals company members share in the global commitment to reduce GHG emissions.

(4.11.2.9) Funding figure your organization provided to this organization or individual in the reporting year (currency)

100000

(4.11.2.10) Describe the aim of this funding and how it could influence policy, law or regulation that may impact the environment

Mosaic's investment of 100,000 USD in membership of International Minerals Innovation Institute (IMII) goes toward research of topics like safety; promising technologies; and emissions-reducing solutions such as geothermal, small modular reactors, and next generation carbon capture.

(4.11.2.11) Indicate if you have evaluated whether your organization’s engagement is aligned with global environmental treaties or policy goals

Select from:

☑ No, we have not evaluated

Row 3

(4.11.2.1) Type of indirect engagement

Select from:

☑ Indirect engagement via a trade association

(4.11.2.4) Trade association

North America

☑ Other trade association in North America, please specify :The International Fertilizer Association

(4.11.2.5) Environmental issues relevant to the policies, laws, or regulations on which the organization or individual has taken a position

Select all that apply

☑ Climate change

☑ Water

(4.11.2.6) Indicate whether your organization’s position is consistent with the organization or individual you engage with

Select from:

☑ Consistent

(4.11.2.7) Indicate whether your organization attempted to influence the organization or individual's position in the reporting year

Select from:

☑ Yes, we publicly promoted their current position

(4.11.2.8) Describe how your organization's position is consistent with or differs from the organization or individual's position, and any actions taken to influence their position

In 2022 The International Fertilizer Association (IFA) published the report "Reducing Emissions from Fertilizer Use." IFA is a global fertilizer association with 400 members and a mission to promote the efficient and responsible production, distribution and use of plant nutrients. This document is a publication from Systemiq, commissioned by the IFA and funded by ten IFA members. Mosaic was a "Gold level" sponsor for the report.

(4.11.2.9) Funding figure your organization provided to this organization or individual in the reporting year (currency)

46945

(4.11.2.10) Describe the aim of this funding and how it could influence policy, law or regulation that may impact the environment

The aim of our funding is to amplify the voice of the fertilizer industry and to contribute to positive public policy, communication, stewardship, sustainability and market intelligence outcomes for the fertilizer industry. Note funding was in Euros (converted to US for this report)

(4.11.2.11) Indicate if you have evaluated whether your organization's engagement is aligned with global environmental treaties or policy goals

Select from:

☑ Yes, we have evaluated, and it is aligned

(4.11.2.12) Global environmental treaties or policy goals aligned with your organization's engagement on policy, law or regulation

Select all that apply

☑ Paris Agreement

☑ Sustainable Development Goal 6 on Clean Water and Sanitation

[Add row]

(4.12) Have you published information about your organization's response to environmental issues for this reporting year in places other than your CDP response?

Select from:

☑ Yes

(4.12.1) Provide details on the information published about your organization's response to environmental issues for this reporting year in places other than your CDP response. Please attach the publication.

Row 1

(4.12.1.1) Publication

Select from:

☑ In mainstream reports, in line with environmental disclosure standards or frameworks

(4.12.1.2) Standard or framework the report is in line with

Select all that apply

☑ GRI

☑ TCFD

☑ Other, please specify :SASB

(4.12.1.3) Environmental issues covered in publication

Select all that apply

☑ Climate change

☑ Water

☑ Biodiversity

(4.12.1.4) Status of the publication

Select from:

☑ Complete

(4.12.1.5) Content elements

Select all that apply

☑ Strategy

☑ Governance

☑ Emission targets

☑ Emissions figures

☑ Risks & Opportunities

☑ Biodiversity indicators

☑ Water accounting figures

(4.12.1.6) Page/section reference

GRI 2: General Disclosures 2021 GRI 3: Material Topics 2021 GRI 301: Materials 2016 GRI 302: Energy 2016 GRI 303: Water and Effluents 2018 GRI 304: Biodiversity 2016 GRI 305: Emissions 2016 GRI 306: Effluents and Waste 2016 GRI 307: Environmental Compliance 2016 GRI 308: Supplier Environmental Assessment 2016

(4.12.1.7) Attach the relevant publication

0-2023-Sustainability-Disclosure-and-GRI.pdf

(4.12.1.8) Comment

Our 2023 sustainability disclosure details The Mosaic Company's 2023 performance across broad sustainability focus areas of People, Environment, Society and Company. Our report has been prepared in accordance with the Universal and Topic GRI Standards. The content of this report has been shaped by the issues identified through a significance study, the results of which we analyze on an ongoing basis.

[Add row]

C5. Business strategy

(5.1) Does your organization use scenario analysis to identify environmental outcomes?

Climate change

(5.1.1) Use of scenario analysis

Select from:
☑ Yes

(5.1.2) Frequency of analysis

Select from:
☑ First time carrying out analysis

Water

(5.1.1) Use of scenario analysis

Select from:
☑ Yes

(5.1.2) Frequency of analysis

Select from:
☑ Not defined
[Fixed row]

(5.1.1) Provide details of the scenarios used in your organization's scenario analysis.

Climate change

(5.1.1.1) Scenario used

Physical climate scenarios

☑ RCP 2.6

(5.1.1.2) Scenario used SSPs used in conjunction with scenario

Select from:

☑ No SSP used

(5.1.1.3) Approach to scenario

Select from:

☑ Qualitative and quantitative

(5.1.1.4) Scenario coverage

Select from:

☑ Organization-wide

(5.1.1.5) Risk types considered in scenario

Select all that apply

☑ Acute physical

☑ Chronic physical

(5.1.1.6) Temperature alignment of scenario

Select from:

☑ 1.5°C or lower

(5.1.1.7) Reference year

2021

(5.1.1.8) Timeframes covered

Select all that apply

☑ 2030

☑ 2050

(5.1.1.9) Driving forces in scenario

Local ecosystem asset interactions, dependencies and impacts

☑ Climate change (one of five drivers of nature change)

Finance and insurance

☑ Cost of capital

Regulators, legal and policy regimes

☑ Global regulation

Direct interaction with climate

☑ On asset values, on the corporate

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

This scenario analysis consisted in assessment of climate risk profile of Mosaic business across jurisdictions in which Mosaic primarily operates using a climate life insurance risk taxonomy; develop quantitative scenario analysis of the physical risks to Mosaic's business using the Physical Risk Rapid Assessment tool and develop quantitative scenario analysis of the most critical transition risks to Mosaic's business as identified through the climate risk assessment results which includes model the climate change impacts less than 2C and greater than 2C scenarios across multiple time horizons and model the financial effects of these impacts on the business with a focus on identifying the key category drivers.

(5.1.1.11) Rationale for choice of scenario

The inputs to the scenario analysis were individual site latitude and longitude; impact metrics for each site like finished product production, throughput for distribution sites and employees per site; summaries of mitigation strategies; and company production forecasts. We selected the highest-scored physical and transition global risks from a climate risk assessment for each scenario analysis. The timelines we considered were 2030 and 2050. The 2030 timeline is relevant given its proximity to Mosaic's five-year planning period, which we use for capital and strategic planning; however, it is limiting in the context of this exercise in that many long-term physical risks will not materialize within the time window. As such, we selected the 2050 timeline to model the impact of longer-term nature of chronic physical risks *and transition risks on Mosaic's business. Conversely, transition risks, particularly those related to emerging regulation, are likely to materialize much sooner, so for that reason, the 2030 timeline is relevant. The risk assessment and scenario analysis considered Mosaic's direct operations; upstream and downstream supply chains; and market for products. Mosaic is taking a proactive approach to reductions in GHG emissions, with an emphasis on technology and improving energy efficiency with behavioral changes, process improvements, equipment upgrades and bold solutions. GHG emissions reductions resulting from Renewable Energy Certificates for solar power acquired from a local electricity supplier in Florida and the energy saving initiatives equal approximately 63,000 tonnes of CO2e. These savings are the equivalent of taking more than 12,000 average United States cars off the road for a year. Our plan is to achieve net-zero emissions companywide by 2040, with achieving Florida milestone emission total by 2030 (considered two separate targets previously. Our pathway focuses foremost on mitigation of emissions from our operations, and we are exploring opportunities to leverage nature-based solutions on our significant landholdings.*

Water

(5.1.1.1) Scenario used

Water scenarios

☑ WRI Aqueduct

(5.1.1.3) Approach to scenario

Select from:

☑ Qualitative and quantitative

(5.1.1.4) Scenario coverage

Select from:

☑ Organization-wide

(5.1.1.5) Risk types considered in scenario

Select all that apply

☑ Acute physical

(5.1.1.7) Reference year

2023

(5.1.1.8) Timeframes covered

Select all that apply

☑ 2025

(5.1.1.9) Driving forces in scenario

Local ecosystem asset interactions, dependencies and impacts

☑ Number of ecosystems impacted

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

This tool is used to understand water-related risks and assess exposure to water risk across our operations.

(5.1.1.11) Rationale for choice of scenario

This tool is used to understand water-related risks and assess exposure to water risk across our operations.

Climate change

(5.1.1.1) Scenario used

Physical climate scenarios

☑ RCP 6.0

(5.1.1.2) Scenario used SSPs used in conjunction with scenario

Select from:

☑ No SSP used

(5.1.1.3) Approach to scenario

Select from:

☑ Qualitative and quantitative

(5.1.1.4) Scenario coverage

Select from:

☑ Organization-wide

(5.1.1.5) Risk types considered in scenario

Select all that apply

☑ Acute physical

☑ Chronic physical

(5.1.1.6) Temperature alignment of scenario

Select from:

☑ 3.5ºC - 3.9ºC

(5.1.1.7) Reference year

2021

(5.1.1.8) Timeframes covered

Select all that apply

☑ 2030

☑ 2050

(5.1.1.9) Driving forces in scenario

Local ecosystem asset interactions, dependencies and impacts

☑ Climate change (one of five drivers of nature change)

Finance and insurance

☑ Cost of capital

Regulators, legal and policy regimes

☑ Global regulation

Direct interaction with climate

☑ On asset values, on the corporate

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

This scenario analysis consisted in assessment of climate risk profile of Mosaic business across jurisdictions in which Mosaic primarily operates using a climate life insurance risk taxonomy; develop quantitative scenario analysis of the physical risks to Mosaic's business using the Physical Risk Rapid Assessment tool and develop quantitative scenario analysis of the most critical transition risks to Mosaic's business as identified through the climate risk assessment results which includes model the climate change impacts less than 2C and greater than 2C scenarios across multiple time horizons and model the financial effects of these impacts on the business with a focus on identifying the key category drivers.

(5.1.1.11) Rationale for choice of scenario

The inputs to the scenario analysis were individual site latitude and longitude; impact metrics for each site like finished product production, throughput for distribution sites and employees per site; summaries of mitigation strategies; and company production forecasts. We selected the highest-scored physical and transition global risks from a climate risk assessment for each scenario analysis. The timelines we considered were 2030 and 2050. The 2030 timeline is relevant given its proximity to Mosaic's five-year planning period, which we use for capital and strategic planning; however, it is limiting in the context of this exercise in that many long-term physical risks will not materialize within the time window. As such, we selected the 2050 timeline to model the impact of longer-term nature of chronic physical risks and transition risks on Mosaic's business. Conversely, transition risks, particularly those related to emerging regulation, are likely to materialize much sooner, so for that reason, the 2030 timeline is relevant. The risk assessment and scenario analysis considered Mosaic's direct operations; upstream and downstream supply chains; and market for products. Mosaic is taking a proactive approach to reductions in GHG emissions, with an emphasis on technology and improving energy efficiency with behavioral changes, process improvements, equipment upgrades and bold solutions. GHG emissions reductions resulting from Renewable Energy Certificates for solar power acquired from a local electricity supplier in Florida and the energy saving initiatives equal approximately 63,000 tonnes of CO2e. These savings are the equivalent of taking more than 12,000 average United States cars off the road for a year. Our plan is to achieve net-zero emissions companywide by 2040, with achieving Florida milestone emission total by 2030 (considered two separate targets previously). Our pathway focuses foremost on mitigation of emissions from our operations, and we are exploring opportunities to leverage nature-based solutions on our significant landholdings.

Climate change

(5.1.1.1) Scenario used

Climate transition scenarios

☑ IEA SDS

(5.1.1.3) Approach to scenario

Select from:

☑ Qualitative and quantitative

(5.1.1.4) Scenario coverage

Select from:

☑ Organization-wide

(5.1.1.5) Risk types considered in scenario

Select all that apply

☑ Policy

☑ Market

☑ Reputation

☑ Technology

(5.1.1.6) Temperature alignment of scenario

Select from:

☑ 1.6ºC - 1.9ºC

(5.1.1.7) Reference year

2021

(5.1.1.8) Timeframes covered

Select all that apply

☑ 2030

☑ 2050

(5.1.1.9) Driving forces in scenario

Local ecosystem asset interactions, dependencies and impacts

☑ Climate change (one of five drivers of nature change)

Finance and insurance

☑ Cost of capital

Regulators, legal and policy regimes

☑ Global regulation

Direct interaction with climate

☑ On asset values, on the corporate

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

This scenario analysis consisted in assessment of climate risk profile of Mosaic business across jurisdictions in which Mosaic primarily operates using a climate life insurance risk taxonomy; develop quantitative scenario analysis of the physical risks to Mosaic's business using the Physical Risk Rapid Assessment tool and develop quantitative scenario analysis of the most critical transition risks to Mosaic's business as identified through the climate risk assessment results which includes model the climate change impacts less than 2C and greater than 2C scenarios across multiple time horizons and model the financial effects of these impacts on the business with a focus on identifying the key category drivers.

(5.1.1.11) Rationale for choice of scenario

The inputs to the scenario analysis were individual site latitude and longitude; impact metrics for each site like finished product production, throughput for distribution sites and employees per site; summaries of mitigation strategies; and company production forecasts. We selected the highest-scored physical and transition global risks from a climate risk assessment for each scenario analysis. The timelines we considered were 2030 and 2050. The 2030 timeline is relevant given its proximity to Mosaic's five-year planning period, which we use for capital and strategic planning; however, it is limiting in the context of this exercise in that many long-term physical risks will not materialize within the time window. As such, we selected the 2050 timeline to model the impact of longer-term nature of chronic physical risks and transition risks on Mosaic's business. Conversely, transition risks, particularly those related to emerging regulation, are likely to materialize much sooner, so for that reason, the 2030 timeline is relevant. The risk assessment and scenario analysis considered Mosaic's direct operations; upstream and downstream supply chains; and market for products. Mosaic is taking a proactive approach to reductions in GHG emissions, with an emphasis on technology and improving energy efficiency with behavioral changes, process improvements, equipment upgrades and bold solutions. GHG emissions reductions resulting from Renewable Energy Certificates for solar power acquired from a local electricity supplier in Florida and the energy saving initiatives equal approximately 63,000 tonnes of CO2e. These *savings are the equivalent of taking more than 12,000 average United States cars off the road for a year. Our plan is to achieve net-zero emissions companywide by 2040, with achieving Florida milestone emission total by 2030 (considered two separate targets previously). Our pathway focuses foremost on mitigation of emissions from our operations, and we are exploring opportunities to leverage nature-based solutions on our significant landholdings.*

Climate change

(5.1.1.1) Scenario used

Climate transition scenarios

☑ IEA STEPS (previously IEA NPS)

(5.1.1.3) Approach to scenario

Select from:

☑ Qualitative and quantitative

(5.1.1.4) Scenario coverage

Select from:

☑ Organization-wide

(5.1.1.5) Risk types considered in scenario

Select all that apply

☑ Policy

☑ Market

☑ Reputation

☑ Technology

(5.1.1.6) Temperature alignment of scenario

Select from:

☑ 2.5ºC - 2.9ºC

(5.1.1.7) Reference year

2021

(5.1.1.8) Timeframes covered

Select all that apply

☑ 2030

☑ 2050

(5.1.1.9) Driving forces in scenario

Local ecosystem asset interactions, dependencies and impacts

☑ Climate change (one of five drivers of nature change)

Finance and insurance

☑ Cost of capital

Regulators, legal and policy regimes

☑ Global regulation

Direct interaction with climate

☑ On asset values, on the corporate

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

This scenario analysis consisted in assessment of climate risk profile of Mosaic business across jurisdictions in which Mosaic primarily operates using a climate life insurance risk taxonomy; develop quantitative scenario analysis of the physical risks to Mosaic's business using the Physical Risk Rapid Assessment tool and develop quantitative scenario analysis of the most critical transition risks to Mosaic's business as identified through the climate risk assessment results which includes model the climate change impacts less than 2C and greater than 2C scenarios across multiple time horizons and model the financial effects of these impacts on the business with a focus on identifying the key category drivers.

(5.1.1.11) Rationale for choice of scenario

The inputs to the scenario analysis were individual site latitude and longitude; impact metrics for each site like finished product production, throughput for distribution sites and employees per site; summaries of mitigation strategies; and company production forecasts. We selected the highest-scored physical and transition global risks from a climate risk assessment for each scenario analysis. The timelines we considered were 2030 and 2050. The 2030 timeline is relevant given its proximity to Mosaic's five-year planning period, which we use for capital and strategic planning; however, it is limiting in the context of this exercise in that many long-term physical risks will not materialize within the time window. As such, we selected the 2050 timeline to model the impact of longer-term nature of chronic physical risks and transition risks on Mosaic's business. Conversely, transition risks, particularly those related to emerging regulation, are likely to materialize much sooner, so for that reason, the 2030 timeline is relevant. The risk assessment and scenario analysis considered Mosaic's direct operations; upstream and downstream supply chains; and market for products. Mosaic is taking a proactive approach to reductions in GHG emissions, with an emphasis on technology and improving energy efficiency with behavioral changes, process improvements, equipment upgrades and bold solutions. GHG emissions reductions resulting from Renewable Energy Certificates for solar power acquired from a local electricity supplier in Florida and the energy saving initiatives equal approximately 63,000 tonnes of CO2e. These savings are the equivalent of taking more than 12,000 average United States cars off the road for a year. Our plan is to achieve net-zero emissions companywide by 2040, with achieving Florida milestone emission total by 2030 (considered two separate targets previously). Our pathway focuses foremost on mitigation of emissions from our operations, and we are exploring opportunities to leverage nature-based solutions on our significant landholdings.

Water

(5.1.1.1) Scenario used

Water scenarios

☑ WRI Aqueduct

(5.1.1.3) Approach to scenario

Select from:

☑ Qualitative and quantitative

(5.1.1.4) Scenario coverage

Select from:

☑ Organization-wide

(5.1.1.5) Risk types considered in scenario

Select all that apply

☑ Chronic physical

(5.1.1.7) Reference year

2023

(5.1.1.8) Timeframes covered

Select all that apply
☑ 2025

(5.1.1.9) Driving forces in scenario

Local ecosystem asset interactions, dependencies and impacts
☑ Number of ecosystems impacted

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

This tool is used to understand water-related risks and assess exposure to water risk across our operations.

(5.1.1.11) Rationale for choice of scenario

This tool is used to understand water-related risks and assess exposure to water risk across our operations.
[Add row]

(5.1.2) Provide details of the outcomes of your organization's scenario analysis.

Climate change

(5.1.2.1) Business processes influenced by your analysis of the reported scenarios

Select all that apply
☑ Risk and opportunities identification, assessment and management
☑ Strategy and financial planning
☑ Resilience of business model and strategy

☑ Capacity building

☑ Target setting and transition planning

(5.1.2.2) Coverage of analysis

Select from:

☑ Organization-wide

(5.1.2.3) Summarize the outcomes of the scenario analysis and any implications for other environmental issues

Climate-related physical scenario analysis results indicated that hurricanes are the peril representing the greatest risk to our global operations. Not surprisingly, there is significant hurricane risk related to our Florida and Louisiana sites (eight active mining and production facilities in total) in both of the time periods analyzed (2030 and 2050), per the focal questions. Physical risks in general are highest for our US operations and most likely to materialize in the 2050 timeframe. The most significant transition risk is the potential or current implementation of carbon pricing in the countries where we have operations. This risk is concentrated in the U.S., where a carbon pricing structure is under consideration and where most of our emissions occur, although the proposed pricing structure is still uncertain; and in Canada, where a carbon pricing structure is already in place (and subject to change with regular regulatory review). In the context of our focal questions, the potential annual impact of penalties on our scope 1 emissions under a Sustainable Development Scenario over the 2030 and 2050 time horizons is 384 million and 547 million per year. Another transition risk that could potentially affect our operations is the increased cost of raw materials, specifically related to volatility in ammonia and sulfur availability and prices – two key inputs to the phosphate manufacturing process. In 2023, the results of both the physical and transition scenario analyses have informed our decisions and actions in a few key ways: a) by elevating climate-related risks to site risk registers, which will help inform our approach for buttressing facilities against climate-related physical threats; and 2) by reinforcing the strategic imperative of activities such as generation of low-carbon energy through cogeneration from waste heat at our facilities, and in the company's investment of significant capital in the development of Esterhazy K3, a potash mine expansion that is expected to deliver significant risk reduction, operational and GHG reduction benefits to our company. Our new Esterhazy K3 potash mine approached its full operating capacity in 2022 (project was started in 2009). The megaproject was delivered early and on budget and is now one of the world's largest and most efficient potash mines.

Water

(5.1.2.1) Business processes influenced by your analysis of the reported scenarios

Select all that apply

☑ Risk and opportunities identification, assessment and management

☑ Strategy and financial planning

☑ Resilience of business model and strategy

☑ Target setting and transition planning

(5.1.2.2) Coverage of analysis

Select from:

☑ Organization-wide

(5.1.2.3) Summarize the outcomes of the scenario analysis and any implications for other environmental issues

Water-related physical scenario analysis using WRI Aqueduct tool identified areas under water-stress in our operations. In 2023, the results of both the physical scenario analyses have informed our decisions and actions by elevating water-related risks to site risk registers, which will help inform our approach for buttressing facilities against water-related physical threats.
[Fixed row]

(5.2) Does your organization's strategy include a climate transition plan?

(5.2.1) Transition plan

Select from:

☑ No, but we are developing a climate transition plan within the next two years

(5.2.15) Primary reason for not having a climate transition plan that aligns with a 1.5°C world

Select from:

☑ Other, please specify **:**Mosaic is currently evaluating development of a Climate Transition Plan.

(5.2.16) Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world

We use energy and generate greenhouse gas and other emissions in the mining, production, distribution and customers do the same when using our crop nutrient products. Climate change poses risks to the health and wellbeing of society, and it creates risk for our business. We are managing this priority by: reducing our companywide greenhouse gas emissions; improving energy efficiency and maximize production and internal use of cogenerated electricity; and promoting product education following the 4R of nutrient stewardship principles. The development of a transition plan is dependent on Chemicals Sector Decarbonization Guidance development. Mosaic has an ambitious net-zero target that applies to our Scope 1 and 2 emissions. The pathway for achieving these reductions, though not validated by the science-based targets initiative per their requirements, includes initiatives that will reduce our absolute emissions significantly; we communicate with our stakeholders on these plans regularly. We also participated in the Assessing low-Carbon Transition (ACT) initiative development process and provided input on a

sectoral decarbonization approach for the chemicals sector. Put simply, we are engaged in this space; however, we need to evaluate finalized Chemical Sectoral Decarbonization guidance to develop a 1.5 C transition plan.
[Fixed row]

(5.3) Have environmental risks and opportunities affected your strategy and/or financial planning?

(5.3.1) Environmental risks and/or opportunities have affected your strategy and/or financial planning

Select from:
☑ Yes, both strategy and financial planning

(5.3.2) Business areas where environmental risks and/or opportunities have affected your strategy

Select all that apply
☑ Products and services
☑ Upstream/downstream value chain
☑ Investment in R&D
☑ Operations
[Fixed row]

(5.3.1) Describe where and how environmental risks and opportunities have affected your strategy.

Products and services

(5.3.1.1) Effect type

Select all that apply
☑ Risks
☑ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

Select all that apply

☑ Climate change

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

Climate-related risks and opportunities related to meeting the evolving needs of customers and growers, such as reducing the impact of crop nutrients on the environment, have influenced our product development strategy. Mosaic made the strategic decision to formalize the companywide priority to "Grow and Strengthen Our Product Portfolio." As a result, Mosaic's strategy and growth team, led by a Senior Vice President that reports directly to Mosaic's CEO, was established to pursue diverse opportunities and yield mutual benefits for Mosaic and its customers. The group was in 2023, exploring products and solutions that address myriad agricultural challenges, some of which are driven by increasing climate-related risks and opportunities, like a plant's ability to thrive in increasingly stressful conditions (drought, changing temperatures, etc.). Our investments through 2023, were approximately 54.4 million in R&D agreements, equity investments and venture capital investments to progress this work. Some of the opportunities associated with this strategy could be realized in the short-term (within four years), namely the commercialization of new product solutions.

Upstream/downstream value chain

(5.3.1.1) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

Select all that apply

☑ Climate change

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

Agriculture is susceptible to climate impacts in many ways, particularly as it relates to downstream use of our products because the use of crop nutrient products contributes to climate change, primarily through the release of N2O from the application of nitrogen-based fertilizers. It is in this context that climate-related risks and opportunities have influenced our strategy across the value chain. We know it is important to contribute to solutions that address climate change, and that is why we are adapting our product portfolio and seeking opportunities to bring products to market that help the users of our products – growers – reduce the impact of their activities on the environment. As a specific example, in 2020, Mosaic announced a partnership with BioConsortia to collaborate on new nitrogen-fixing microbial products, which naturally "fix" atmospheric nitrogen, converting it to ammonia and making it available to crops during the growing season, thereby reducing growers' reliance on the addition of synthetic nitrogen fertilizers. We progressed this partnership in 2023. Pressure on the agricultural value chain to manage the impact of agriculture on the environment is increasing and products like nitrogen fixing microbial projects are one promising solution; accordingly, we are anticipating the *release of other biological products within the next four years (short-term). Other risks, such as the risk of widespread changes in location and productivity of growing regions will materialize more slowly and thus, our response to them is longer-term in nature.*

Investment in R&D

(5.3.1.1) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

Select all that apply

☑ Climate change

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

Mosaic has made the strategic decision to establish relationships with key universities, technology development companies and research organizations around the globe to develop and test innovative products like our MicroEssentials line. Mosaic invests in research partnerships that focus on soil chemistry and fertilizer technology and develop innovative fertilizer formulations to improve nutrient use efficiency in a variety of climate regimes, which could potentially allow for growing crops in increasingly stressful growing conditions. Climate risks and opportunities have shaped the extent to which we invest in certain research partnerships on an annual (short-term) basis; they have also shaped the nature of our ongoing (longer-term) research. Our investments through 2023, were approximately 54.4 million in R&D agreements, equity investments and venture capital investments to progress this work related to efforts to grow and strengthen our product portfolio. Some of our R&D investments were related to development of products such as nitrogen-fixing microbial products, which help promote more sustainable farming practices while also solving for the world's increasing demand in food supply.

Operations

(5.3.1.1) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

Select all that apply

☑ Climate change

☑ Water

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

In anticipation of changing weather patterns, potential shortages of water, the possibility of increasing energy costs and possible carbon/energy taxes and their potential effects on our business, Mosaic employs a strategy that focuses on operational excellence and we have made strategic decisions about our operating activities in order to address operating efficiency and resource management. The most substantial strategic decision in this area in 2021 was our announcement of new companywide net-zero targets emissions by 20% per tonne of finished product by 2025. The target will affect our individual facilities (operations), who will be responsible for executing strategies to reduce emissions. Further, in 2023 we advanced key initiatives in our pathway to net-zero. For example, we are exploring carbon capture and sequestration (CCS) at our highest emitting site in Louisiana, which could reduce emissions by up to 500,000 tonnes/year. As an example of how water-related issues are integrated into our long-term strategic business plan, Mosaic's market analysis team monitors climate and growing regions, forecasting for water-related events like droughts, floods and severe weather events, to determine their potential impact on the markets, our production (which translates to revenue) and Mosaic's overall financial performance and ability to meet business objectives. Water management issues, specifically brine inflow at our Esterhazy mine, have highly influenced our long-term potash expansion plan. The K3 shaft at our Esterhazy mine are part of our long-term plan to meet production goals and reduce risk from current and future inflows at our Esterhazy mine. The rationale for the 16-20 year time horizon reflects the length of time factors like brine inflow can impact our operations. Without the presence of the risk of brine inflow, our potash expansion plan may have not been completed on the same timeline, and/or we may not have committed as much in capital expenditures to the K3 shaft. The acceleration of closure of K1 and K2, completed in 2022, in response to brine inflow, is an example of response to water related risk. Similarly, water issues in our Phosphates segment – specifically around water use and water balances at our fertilizer manufacturing facilities – have directly influenced our long-term business objectives and capital expenditures planning. For example, we have asset retirement obligations (AROs) for the company's Florida and Louisiana facilities that require us to treat low pH process water in Gypstacks; and close, monitor and provide long-term care for Gypstacks at our Florida and Louisiana facilities at the end of their useful lives.

[Add row]

(5.3.2) Describe where and how environmental risks and opportunities have affected your financial planning.

Row 1

(5.3.2.1) Financial planning elements that have been affected

Select all that apply

☑ Revenues

☑ Indirect costs

(5.3.2.2) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.2.3) Environmental issues relevant to the risks and/or opportunities that have affected these financial planning elements

Select all that apply

☑ Climate change

(5.3.2.4) Describe how environmental risks and/or opportunities have affected these financial planning elements

Revenues: As part of our annual financial planning process, for example, a widespread flood or inclement weather might impact agricultural commodity markets, which could in turn affect Mosaic's annual sales. Adverse weather may also cause a loss of production and may disrupt our supply chain or adversely affect delivery of products to customers, which may also have an impact on revenues. For example, in the second half of 2022, we experienced production impacts related to Hurricane Ian, which made landfall as a category 5 near our Florida sites. One impact was on the sale of inventory related to Hurricane Ian idle costs, which resulted in an approximately 39 million negative impact to our 2022 revenue. The data from 2022 and 2021 remains relevant for this reporting cycle; during the 2023 Atlantic hurricane season our operational facilities did not suffer any direct path hurricane impacts. Indirect costs: One of the consequences of the carbon tax in Canada is pass-through costs to Mosaic from third parties. Our Canadian potash mines, located in the Province of Saskatchewan represent about 44% of Mosaic's total finished crop nutrient production tonnes and approximately 26% of total companywide emissions in 2023. One feature of the comprehensive tax on carbon emissions is a carbon levy charge from our electricity provider, which translates to increased indirect costs to our company (approximately 4.4 million USD in 2023). Costs associated with the carbon levy are passed on from Mosaic's rail carriers in Canada, resulting in additional indirect costs to our company (approximately 520,000 USD in 2023).

Row 2

(5.3.2.1) Financial planning elements that have been affected

Select all that apply

☑ Direct costs

☑ Capital expenditures

(5.3.2.2) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.2.3) Environmental issues relevant to the risks and/or opportunities that have affected these financial planning elements

Select all that apply

☑ Climate change

(5.3.2.4) Describe how environmental risks and/or opportunities have affected these financial planning elements

Direct costs, capital expenditures: We consider EHS laws and regulations, some which are climate-related, and their effect(s) on operating costs and capital expenditures. Severe climate-related events, including hurricanes, have in the past, and may in the future, adversely affect our operations, resulting in increased direct costs or decreased production. These impacts are part of our broad financial planning process on an annual basis. Mosaic's market analysis team monitors climate and growing regions, forecasting for climate-related events like droughts, floods and severe weather events, to determine their potential impact on the markets, our production and Mosaic's overall financial performance. As another example that has an impact on our operating costs, Mosaic forecasts the financial implications of carbon pricing mechanisms in Canada. Our evaluation is considering the operating cost impacts of direct energy consumption as well as indirect impacts of how the tax is passed on to Mosaic from third parties. In 2023,we continued to see price increases for electricity used at our Saskatchewan facilities as a result of these changing regulations. Specifically, we paid 4.4 million USD in the form of carbon levy funds to the utility provider in Saskatchewan in 2023– charges that are tied directly to Mosaic's electricity consumption due to pass-through costs from the utility. This impact on our operating costs is considered low magnitude. This example is still relevant to the reporting year. We also consider availability of CapEx for projects that could improve our environmental performance, including energy or GHG efficiency. As an example, Mosaic is assessing changes in boiler emission allowances that will be effective in 2026 that will have significant impact on one of our Saskatchewan potash mines. Current boilers may not meet NOx emissions requirements and we are exploring options, including equipment alterations that would require capital investments (thus affecting capital allocation), in order to meet compliance standards. A capital project team has been assembled to conduct detailed analyses to assess solutions and the potential cost implications, but based on preliminary estimates, the CapEx impact could be more than 73 million. These costs could impact Mosaic's ability to remain competitive against other global fertilizer and mining companies that operate in lower-cost jurisdictions without similar carbon tax or environmental costs.

Row 3

(5.3.2.1) Financial planning elements that have been affected

Select all that apply

☑ Capital allocation

☑ Access to capital

☑ Assets

(5.3.2.2) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.2.3) Environmental issues relevant to the risks and/or opportunities that have affected these financial planning elements

Select all that apply

☑ Climate change

(5.3.2.4) Describe how environmental risks and/or opportunities have affected these financial planning elements

Capital allocation: Climate-related risks and opportunities have influenced our approach to capital allocation because many of the emissions-reductions opportunities we have identified will require capital investments. At the same time, these initiatives can be hard to justify because they don't meet traditional financial hurdle criteria. As a result, we are exploring a capital allocation designation for ESG projects to help drive the investments necessary to reduce our GHG emissions. As noted, the lower our emissions, the less exposed we are to the threat of carbon pricing in our global operations – a risk we have identified through scenario analysis that affects us in the short- and long-term horizons. Capital budgets planning horizon is approximately five years long (medium-term); however, the decision to formalize a capital allocation is likely to happen within a year (short-term). Access to capital: At this time, our identified risks related to climate change have not had an impact on our company's access to capital. However, Mosaic understands that climate-related issues can possibly have an impact on a company's credit score, which could, in turn, affect long-term access to debt capital. Similarly, we understand that external perceptions of Mosaic's ESG performance by the investor community, including elements related to climate, could have a positive or negative impact on our access to equity capital. We are employing adaptation and mitigation strategies at our operations and regularly engaging financial stakeholders in order to minimize or avoid negative impacts, and to impart an understanding of the criticality of fertilizer to sustainable food security. We are also contemplating the use of "green" financial instruments, tied to our sustainability performance, to further drive company progress toward ESG targets and to access lower borrowing interest rates.

Row 4

(5.3.2.1) Financial planning elements that have been affected

Select all that apply

☑ Indirect costs

☑ Capital expenditures

(5.3.2.2) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.2.3) Environmental issues relevant to the risks and/or opportunities that have affected these financial planning elements

Select all that apply

☑ Water

(5.3.2.4) Describe how environmental risks and/or opportunities have affected these financial planning elements

Water quality and storage issues are considered as part of our financial planning process. We do not track water related CapEX and OpEX as an individual line item. However, this figure represents the change in monies spent on environmental capital expenditures and land reclamation activities, Gypstack closure, water treatment activities, tailings management, and clay settling areas as reported in our Annual Report on Form 10-K. We estimate in the year ended December 31, 2023, we will incur approximately 470 million in expenses for environmental capital expenditures, land reclamation activities, Gypstack closure and water treatment activities.
[Add row]

(5.4) In your organization’s financial accounting, do you identify spending/revenue that is aligned with your organization’s climate transition?

	Identification of spending/revenue that is aligned with your organization's climate transition
	Select from: ☑ No, but we plan to in the next two years

[Fixed row]

(5.5) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
	Select from: ☑ Yes	*Mosaic invests in R&D of low-carbon products.*

[Fixed row]

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

Row 1

(5.5.3.1) Technology area

Select from:
☑ Carbon capture, utilization, and storage (CCUS)

(5.5.3.2) Stage of development in the reporting year

Select from:

☑ Applied research and development

(5.5.3.3) Average % of total R&D investment over the last 3 years

0.1

(5.5.3.5) Average % of total R&D investment planned over the next 5 years

5

(5.5.3.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Mosaic is exploring CCUS at multiple locations and expect to be able to disclose details once an agreement has been reached. We are in the fourth year of a carbon dioxide reduction initiative of which a scalable strategy is being developed. Note - we are unable to provide a total spend for R&D, and the percentages are leveraged off specific genre spend associated with exploration of CCUS with future prediction based on only select aspects without consideration of major projects.

Row 3

(5.5.3.1) Technology area

Select from:

☑ Bio technology

(5.5.3.2) Stage of development in the reporting year

Select from:

☑ Pilot demonstration

(5.5.3.3) Average % of total R&D investment over the last 3 years

45

(5.5.3.5) Average % of total R&D investment planned over the next 5 years

50

(5.5.3.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

As another strategy to manage climate change risk, we are investing in research and product development and partnership opportunities to study and maximize the performance of Mosaic's fertilizer product portfolio in diverse, changing and stressful soil and climatic environments. For example, Mosaic's agronomic research program focuses on methods to build resilient soils with soil health, 4R nutrient stewardship and balanced crop nutrition initiatives. Our data from lab, greenhouse, and field research consistently demonstrates that healthy soils achieve enhanced productivity and profitability, especially in climate-induced stressful growing conditions. In 2023 we conducted over 2,300 small plot trials in Argentina, Brazil, Chile, China, Canada, India, Latin America (Mexico to Peru), Turkey and the United States. These activities cost approximately 3 million in 2023. Also, in 2021 we announced a new agreement (bringing the total to three) to develop and launch agricultural solutions, including a nutrient efficiency product and a nitrogen-fixing microbial product, that contribute to soil health in diverse applications and have positive environmental benefits. Our investments through 2023, were approximately 54.4 million in R&D agreements, equity investments and venture capital investments to progress this work to develop new agricultural solutions. Mosaic promotes the use of agricultural best practices by supporting research and advancing educational outreach on practices that reduce GHG emissions and other environmental impacts associated with the use of crop nutrient products. Further, Mosaic supports the minimization of GHG emissions and other environmental impacts from the global food supply by encouraging stakeholders to enhance their understanding, adoption and promotion of 4R Nutrient Stewardship. In Brazil, we partner with Embrapa (Brazil's Agricultural Research Company) in the Bifequali Tech Transfer Program, which aims at educating farmers and ranchers on best practices to use fertilizer in pastureland, thus promoting integrated crop-livestock systems that reduces GHG emission from livestock production. Note - we are unable to provide a total spend for R&D, and the percentages are leveraged off specific genre spend associated with exploration of biological fertilizers with future prediction based on rounded average.

Row 4

(5.5.3.1) Technology area

Select from:

☑ Other, please specify **:**Decarbonization technologies

(5.5.3.2) Stage of development in the reporting year

Select from:

☑ Basic academic/theoretical research

(5.5.3.3) Average % of total R&D investment over the last 3 years

0.1

(5.5.3.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

100000

(5.5.3.5) Average % of total R&D investment planned over the next 5 years

0.1

(5.5.3.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

As a specific example, in 2023 we invested approximately 100,000 USD in membership of International Minerals Innovation Institute (IMII) to research promising clean energy technologies. In 2023, our participation and membership fees helped fund important works streams including completing front end engineering studies focused on waste energy re-capture at a mine site in Saskatchewan, the initiation of an industry wide study of carbon sequestration potential in Saskatchewan and working with cutting edge technology providers to assess feasibility of using their innovations in Mosaic operations. Note - we are unable to provide a total spend for R&D, and the percentages are leveraged off specific genre spend which, in this case, is less than 0.1 percent.

Row 5

(5.5.3.1) Technology area

Select from:

☑ Waste heat recovery

(5.5.3.2) Stage of development in the reporting year

Select from:

☑ Large scale commercial deployment

(5.5.3.3) Average % of total R&D investment over the last 3 years

4

(5.5.3.5) Average % of total R&D investment planned over the next 5 years

17

(5.5.3.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Mosaic has invested in equipment that enables the internal generation of electricity in a process called cogeneration. The process of heat recovery allows our Phosphate facilities to reduce the amount of third-party, primarily fossil-fuel based electricity required from utilities. The cogeneration process begins at our manufacturing sites, where we use sulfuric acid to liberate phosphorous. This process generates a significant amount of waste heat that is recovered and converted to steam. This steam is sent to turbine generators and converted to virtually greenhouse gas emissions-free electricity that powers our facilities. In instances when we generate more clean cogenerated energy than we can use at our own operations, the excess is exported to the local grid. We are continually looking for opportunities to improve the efficiency and output of our cogeneration assets, including bringing additional turbo generators online to increase our low-GHG electrical generation capacity, when possible. Accordingly, there is no "end date" for this investment. Mosaic is constantly improving our processes with focused internal experts, along with utilizing advanced technologies that are being developed worldwide. The amount of investment depends on the specific project, but as an example, in 2016 we brought a generator online at our Uncle Sam facility that can provide up to an additional 15 megawatts of low-GHG electrical generation capacity. This initiative cost approximately 21 million. We are investigating technology upgrades that would allow us to harness additional waste heat to enable more production of cogenerated electricity at our Brazil phosphate facilities. Multiple heat recovery systems would cost 250,000,000. Note - we are unable to provide a total spend for R&D, as such, the percentage of R&D spend was calculated off asset sustaining capital spend which includes direct innovation spend and also indirect innovation spend that improves efficiency in additional parts of the process. An example of this is creating new heat transfer materials for energy transfer improvements. In addition, data out to 2028 (five-year envelope) was not available at the time of this reporting so a subset of data through 2024 was used to extrapolate future percentages. Of note this calculation was undertaken for the 2023 reporting cycle but is still considered valid for this reporting cycle, also noting an increased focus in this space as we position for our net-zero strategy.
[Add row]

(5.9) What is the trend in your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

(5.9.1) Water-related CAPEX (+/- % change)

4

(5.9.2) Anticipated forward trend for CAPEX (+/- % change)

-23

(5.9.3) Water-related OPEX (+/- % change)

0

(5.9.4) Anticipated forward trend for OPEX (+/- % change)

0

(5.9.5) Please explain

Water-related CapEx is not available as an individual line item currently, so we are opting to cite a category that includes water-related CapEx and other environmental categories. Year-over-year, our spend for activities related to environmental capital expenditures, land reclamation activities, Gypstack closure and water treatment activities were 470 million in 2023, a 4% increase from 450 million in 2022. In 2025, we estimate environmental capital expenditures will be approximately 360 million and expenditures for land reclamation activities, Gypstack closure and water treatment activities are expected to be approximately 240 million (4% decrease from 2023). Water related OpEx is not available as an individual line item currently, so we are opting to cite categories relevant to this report that include expense related to closure of our K1 and K2 mine shafts at our Esterhazy, Saskatchewan potash mine of 158 million. OpEx projected forward is not publicly available currently.
[Fixed row]

(5.10) Does your organization use an internal price on environmental externalities?

	Use of internal pricing of environmental externalities	Environmental externality priced
	Select from: ☑ Yes	*Select all that apply* ☑ Carbon

[Fixed row]

(5.10.1) Provide details of your organization's internal price on carbon.

Row 1

(5.10.1.1) Type of pricing scheme

Select from:

☑ Shadow price

(5.10.1.2) Objectives for implementing internal price

Select all that apply

☑ Drive energy efficiency

☑ Incentivize consideration of climate-related issues in decision making

☑ Navigate regulations

(5.10.1.3) Factors considered when determining the price

Select all that apply

☑ Alignment with the price of a carbon tax

☑ Price with substantive impact on business decisions

☑ Scenario analysis

(5.10.1.4) Calculation methodology and assumptions made in determining the price

As of the date of this report, Mosaic has not formalized an internal carbon pricing mechanism. In lieu of this, we are utilizing the carbon pricing figures provided by the International Energy Agency (IEA). Specifically, we reference the IEA's carbon price of 63 per metric ton of CO2, sourced from their Energy Outlook report. This figure serves as a benchmark in the absence of an internally established carbon price. The use of the IEA's carbon price assumes alignment with global energy transition pathways and reflects expected future costs associated with carbon emissions, as modeled by the IEA's scenario-based approach. Mosaic acknowledges that formalizing an internal carbon price will require further development to account for specific regional regulations, market conditions, and operational impacts across our facilities. For now, this external figure is used for scenario analysis, strategic planning, and to guide preliminary cost estimations related to carbon-intensive activities. The company will continue to evaluate internal carbon pricing mechanisms as part of our ongoing sustainability efforts.

(5.10.1.5) Scopes covered

Select all that apply

☑ Scope 1

☑ Scope 2

(5.10.1.6) Pricing approach used – spatial variance

Select from:

☑ Uniform

(5.10.1.8) Pricing approach used – temporal variance

Select from:

☑ Evolutionary

(5.10.1.9) Indicate how you expect the price to change over time

As of the date of this report, Mosaic has not formalized an internal price on carbon. However, once formalized, we expect the internal price on carbon to change as governments impose stricter climate regulations and carbon markets mature, driving up the costs of compliance. Additionally, as Mosaic advances its sustainability goals, the internal carbon price will need to reflect the increasing importance of decarbonization. This will drive investments in low-carbon technologies and innovations.

(5.10.1.10) Minimum actual price used (currency per metric ton CO2e)

63

(5.10.1.11) Maximum actual price used (currency per metric ton CO2e)

63

(5.10.1.12) Business decision-making processes the internal price is applied to

Select all that apply

☑ Product and R&D

☑ Risk management

(5.10.1.13) Internal price is mandatory within business decision-making processes

Select from:

☑ No

(5.10.1.14) % total emissions in the reporting year in selected scopes this internal price covers

56

(5.10.1.15) Pricing approach is monitored and evaluated to achieve objectives

Select from:

☑ Yes

(5.10.1.16) Details of how the pricing approach is monitored and evaluated to achieve your objectives

We have applied various pricing scenarios to our emissions performance in order to assess our potential exposure to carbon pricing schemes. For example, if we apply the International Energy Agency's (IEA) recommended price of 63 per tonne of CO2e generated to the scope 1 and scope 2 emissions from our U.S. facilities (roughly 2.6 million tonnes CO2e/year), the impact would be greater than 164 million per year. This example is a gross simplification and doesn't take into account any potential exemptions for essential or energy intensive trade exposed industries like the one Mosaic operates in. We are monitoring these developments closely. We have also used a shadow price to assess its implication on our capital decision-making process. More specifically, projects that are otherwise hard to justify are more compelling with the introduction of a price on carbon. As of the date of this report, Mosaic has not formalized an internal price on carbon.

[Add row]

(5.11) Do you engage with your value chain on environmental issues?

	Engaging with this stakeholder on environmental issues	Environmental issues covered
Suppliers	*Select from:* ☑ Yes	*Select all that apply* ☑ Climate change ☑ Water
Customers	*Select from:* ☑ Yes	*Select all that apply* ☑ Climate change ☑ Water

	Engaging with this stakeholder on environmental issues	Environmental issues covered
Investors and shareholders	*Select from:* ☑ Yes	*Select all that apply* ☑ Climate change ☑ Water
Other value chain stakeholders	*Select from:* ☑ Yes	*Select all that apply* ☑ Climate change ☑ Water

[Fixed row]

(5.11.1) Does your organization assess and classify suppliers according to their dependencies and/or impacts on the environment?

Climate change

(5.11.1.1) Assessment of supplier dependencies and/or impacts on the environment

Select from:

☑ Yes, we assess the dependencies and/or impacts of our suppliers

(5.11.1.2) Criteria for assessing supplier dependencies and/or impacts on the environment

Select all that apply

☑ Contribution to supplier-related Scope 3 emissions

(5.11.1.3) % Tier 1 suppliers assessed

Select from:

☑ 76-99%

(5.11.1.4) Define a threshold for classifying suppliers as having substantive dependencies and/or impacts on the environment

In North America, we assess our suppliers' ESG performance, including water and waste management, through a survey on the ISN platform, which includes ESG metrics. 99% of suppliers on ISN have responded, covering approximately 80% of our services spend. The substantive impact reflects only respondents in ISN who reported that they track water use in their operations. Mosaic has not yet established the cut-off /threshold criteria for defining material/substantive water impacts of suppliers.

(5.11.1.5) % Tier 1 suppliers meeting the thresholds for substantive dependencies and/or impacts on the environment

Select from:

☑ None

Water

(5.11.1.1) Assessment of supplier dependencies and/or impacts on the environment

Select from:

☑ Yes, we assess the dependencies and/or impacts of our suppliers

(5.11.1.2) Criteria for assessing supplier dependencies and/or impacts on the environment

Select all that apply

☑ Dependence on water

☑ Impact on water availability

☑ Other, please specify :Impact on Water Quality

(5.11.1.3) % Tier 1 suppliers assessed

Select from:

☑ 76-99%

(5.11.1.4) Define a threshold for classifying suppliers as having substantive dependencies and/or impacts on the environment

In North America, we assess our suppliers' ESG performance, including water and waste management, through a survey on the ISN platform, which includes ESG metrics. 99% of suppliers on ISN have responded, covering approximately 80% of our services spend. The substantive impact reflects only respondents in ISN who reported that they track water use in their operations. Mosaic has not yet established the cut-off /threshold criteria for defining material/substantive water impacts of suppliers.

(5.11.1.5) % Tier 1 suppliers meeting the thresholds for substantive dependencies and/or impacts on the environment

Select from:
☑ 1-25%

(5.11.1.6) Number of Tier 1 suppliers meeting the thresholds for substantive dependencies and/or impacts on the environment

397
[Fixed row]

(5.11.2) Does your organization prioritize which suppliers to engage with on environmental issues?

Climate change

(5.11.2.1) Supplier engagement prioritization on this environmental issue

Select from:
☑ Yes, we prioritize which suppliers to engage with on this environmental issue

(5.11.2.2) Criteria informing which suppliers are prioritized for engagement on this environmental issue

Select all that apply
☑ Regulatory compliance

(5.11.2.4) Please explain

Mosaic's supplier agreements require suppliers to comply with all applicable laws and regulations in the performance of their work for Mosaic. In the context of climate, compliance requires paying applicable taxes on fuel and utility bills (e.g. including carbon). This aspect is specific to our Canadian Potash facilities.

Water

(5.11.2.1) Supplier engagement prioritization on this environmental issue

Select from:

☑ No, we do not prioritize which suppliers to engage with on this environmental issue

(5.11.2.3) Primary reason for no supplier prioritization on this environmental issue

Select from:

☑ We engage with all suppliers

(5.11.2.4) Please explain

When deciding on competing suppliers, the following four principles are considered but not limiting to the following: Safety & Environmental Stewardship, Lowest Total Cost of Ownership, Proactive and Reliable Service, Relationship Focused on Innovation and Continuous Improvement.
[Fixed row]

(5.11.5) Do your suppliers have to meet environmental requirements as part of your organization's purchasing process?

Climate change

(5.11.5.1) Suppliers have to meet specific environmental requirements related to this environmental issue as part of the purchasing process

Select from:

☑ Yes, suppliers have to meet environmental requirements related to this environmental issue, but they are not included in our supplier contracts

(5.11.5.2) Policy in place for addressing supplier non-compliance

Select from:

☑ No, we do not have a policy in place for addressing non-compliance

(5.11.5.3) Comment

Mosaic is collecting data on our suppliers' ESG performance, which could form the basis of being able to set supplier requirements. The Mosaic sustainability team is exploring what climate change-related requirements could be included as part of the purchasing process.

Water

(5.11.5.1) Suppliers have to meet specific environmental requirements related to this environmental issue as part of the purchasing process

Select from:

☑ No, but we plan to introduce environmental requirements related to this environmental issue within the next two years

(5.11.5.2) Policy in place for addressing supplier non-compliance

Select from:

☑ No, we do not have a policy in place for addressing non-compliance

(5.11.5.3) Comment

Mosaic is collecting data on our suppliers' ESG performance, which could form the basis of being able to set supplier requirements. The Mosaic sustainability team is exploring what water-related requirements could be included as part of the purchasing process.
[Fixed row]

(5.11.6) Provide details of the environmental requirements that suppliers have to meet as part of your organization's purchasing process, and the compliance measures in place.

Climate change

(5.11.6.1) Environmental requirement

Select from:

☑ Environmental disclosure through a non-public platform

(5.11.6.2) Mechanisms for monitoring compliance with this environmental requirement

Select all that apply

☑ Certification

☑ Grievance mechanism/ Whistleblowing hotline

☑ Second-party verification

☑ Supplier self-assessment

(5.11.6.3) % tier 1 suppliers by procurement spend required to comply with this environmental requirement

Select from:

☑ 26-50%

(5.11.6.4) % tier 1 suppliers by procurement spend in compliance with this environmental requirement

Select from:

☑ 26-50%

(5.11.6.7) % tier 1 supplier-related scope 3 emissions attributable to the suppliers required to comply with this environmental requirement

Select from:

☑ 100%

(5.11.6.8) % tier 1 supplier-related scope 3 emissions attributable to the suppliers in compliance with this environmental requirement

Select from:

☑ 100%

(5.11.6.9) Response to supplier non-compliance with this environmental requirement

Select from:

☑ Other, please specify :A Supplier’s failure to observe and act in accordance with this Mosaic Supplier Code of Business Conduct and Ethics may lead to the termination of our business relationship.

(5.11.6.10) % of non-compliant suppliers engaged

Select from:

☑ None

(5.11.6.11) Procedures to engage non-compliant suppliers

Select all that apply

☑ Assessing the efficacy and efforts of non-compliant supplier actions through consistent and quantified metrics

☑ Providing information on appropriate actions that can be taken to address non-compliance

☑ Re-integrating suppliers back into upstream value chain based on the successful and verifiable completion of activities

(5.11.6.12) Comment

Mosaic’s supplier agreements require suppliers to comply with all applicable laws and regulations in the performance of their work for Mosaic. In the context of climate, compliance requires paying embedded applicable taxes on fuel and utility bills (e.g. including carbon). This aspect is specific to our Canadian Potash facilities.

[Add row]

(5.11.7) Provide further details of your organization’s supplier engagement on environmental issues.

Climate change

(5.11.7.2) Action driven by supplier engagement

Select from:

☑ Emissions reduction

(5.11.7.3) Type and details of engagement

Innovation and collaboration

☑ Collaborate with suppliers on innovations to reduce environmental impacts in products and services

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

☑ Other innovation and collaboration activity, please specify :We are engaging alongside the fertilizer industry and other stakeholders to promote sound policy and tax incentives such as the 45Q tax credit, that could enable significant sustainability projects like CCUS to become commercially feasible.

(5.11.7.4) Upstream value chain coverage

Select all that apply

☑ Tier 1 suppliers

(5.11.7.5) % of tier 1 suppliers by procurement spend covered by engagement

Select from:

☑ 1-25%

(5.11.7.6) % of tier 1 supplier-related scope 3 emissions covered by engagement

Select from:

☑ 1-25%

(5.11.7.9) Describe the engagement and explain the effect of your engagement on the selected environmental action

Worldwide, ammonia production represents approximately 2.1% of global emissions (2022 study); thus it is a collective decarbonization priority for the fertilizer industry and other producers of this critical product. We have included 100% of our ammonia suppliers in the consideration of this metric. Ammonia represents a significant scope 3 emissions source to us (roughly 40% excluding category 11), and approximately 60% of the total lifecycle GHG emissions for our commodity phosphate products, which is our rationale for participating in this engagement. Our rationale for prioritizing this engagement is because of the impact ammonia has on our scope 3 emissions and total life cycle impact of our products. Note - while not a campaign, per se, we are engaging alongside the fertilizer industry to promote sound policy and encourage investment that reduces the impact of collective products and services. We are engaging alongside the fertilizer industry and other stakeholders on the U.S. 45Q tax credit, that could enable significant sustainability projects like carbon capture and sequestration (CCS) to become commercially feasible. Implementation of CCS at existing ammonia facilities would transform the product into "blue ammonia" which would translate to reductions in emissions for producers and users alike. The measure of success is reduction in GHG emissions associated with global ammonia supplies. To date, since implementation of CCS is a longer-term endeavor with an anticipated initiation date in the United States of 2025/2026, we do not have results to share, but we are heavily engaged in this space with the longer-term agenda in mind. We realize this example might fall short of CDP's scoring criteria because we do not have short-term results to share, but we are including it nonetheless because of ammonia's contribution to global GHG emissions. This work is a critical step to advancing the global climate agenda.

Mosaic satisfies a portion of its total ammonia needs through self-production. We are exploring CCS at this site in earnest. Successful implementation of CCS at our ammonia facility would result in a significant Scope 1 emissions reduction for our company. We have included 100% of our ammonia suppliers in the consideration of this metric, recognizing that as a subset of all Mosaic suppliers the ammonia suppliers represent less than 1%.

(5.11.7.10) Engagement is helping your tier 1 suppliers meet an environmental requirement related to this environmental issue

Select from:

☑ Yes, please specify the environmental requirement **:**Encourage suppliers and stakeholders promote sound policy and encourage investment that reduces the impact of collective products and services.

(5.11.7.11) Engagement is helping your tier 1 suppliers engage with their own suppliers on the selected action

Select from:

☑ Yes

Water

(5.11.7.2) Action driven by supplier engagement

Select from:

☑ Other, please specify **:**Improve water quality and wildlife habitat on working ricelands

(5.11.7.3) Type and details of engagement

Capacity building

☑ Provide training, support and best practices on how to mitigate environmental impact

Innovation and collaboration

☑ Collaborate with suppliers on innovations to reduce environmental impacts in products and services

☑ Incentivize collaborative sustainable water management in river basins

(5.11.7.4) Upstream value chain coverage

Select all that apply

☑ Tier 1 suppliers

(5.11.7.5) % of tier 1 suppliers by procurement spend covered by engagement

Select from:

☑ 1-25%

(5.11.7.7) % tier 1 suppliers with substantive impacts and/or dependencies related to this environmental issue covered by engagement

Select from:

☑ 26-50%

(5.11.7.9) Describe the engagement and explain the effect of your engagement on the selected environmental action

Mosaic engages suppliers to include providing funds and supporting a partnership with USA Rice that addresses water quantity, water quality and wildlife habitat on working ricelands. This engagement – collective action involving organizations and companies up and down the supply chain, including some of Mosaic's suppliers – is a productive way to work together toward common goals of advocacy and water sustainability. Though the number of suppliers by number is relatively low, the suppliers involved represent a significant portion of our annual supply chain expenditures (associated with key raw materials). This partnership is also significant on a global scale because rice is a primary food staple for more than half the world's population. These practices, to the extent that they are scalable, are important to improving sustainable agriculture outcomes associated with this staple. The impacts of the engagement are improved water quality, reduced quantity and conservation of wildlife habitat on working ricelands in the United States. Water quality impacts associated with the adoption of 21 conservation practices are a key measure of success; so are acres of ricelands covered under the partnership. To date (2023), there are more than 844,513 acres of ricelands covered under the partnership, which represents a 1% year-over-year increase and approximately 28% of ricelands acres in the United States. Mosaic and Ducks Unlimited have finalized an impacts report on the last ten years of the partnership in 2023. Some of the successes, based on field research and empirical research with University partners in the region is showing: an 84 percent reduction in Total Phosphorus concentrations, 68 percent reduction in Nitrate concentrations, and 81 percent reduction in total suspended sediments concentrations through improved water management and advanced 4R practices. Alternate wet and dry cycling in rice production is providing additional GHG emission reduction benefits, showing that this management practice compared to traditional flood management of rice is reducing GHG emissions up to 65% in the alluvial region of the Mississippi river delta. In relation to rice stewardship, since 2013 Mosaic contributions have totaled nearly 2 million USD and have leveraged an additional 134 million from USDA cost-share funding and other private funding.

(5.11.7.11) Engagement is helping your tier 1 suppliers engage with their own suppliers on the selected action

Select from:

☑ Unknown

(5.11.7.2) Action driven by supplier engagement

Select from:

☑ Emissions reduction

(5.11.7.3) Type and details of engagement

Information collection

☑ Collect environmental risk and opportunity information at least annually from suppliers

☑ Other information collection activity, please specify :We introduced a supplier survey to assess our North American suppliers' performance in key ESG areas, including GHG reporting and management. We utilize the platform ISN which includes ESG metrics along with specific Mosaic ESG metrics.

(5.11.7.4) Upstream value chain coverage

Select all that apply

☑ Tier 1 suppliers

(5.11.7.5) % of tier 1 suppliers by procurement spend covered by engagement

Select from:

☑ 76-99%

(5.11.7.6) % of tier 1 supplier-related scope 3 emissions covered by engagement

Select from:

☑ 51-75%

(5.11.7.9) Describe the engagement and explain the effect of your engagement on the selected environmental action

We introduced a supplier survey to assess our suppliers' performance in key ESG areas, including GHG reporting and management. In North America, we utilize the platform ISN which includes ESG metrics along with Mosaic-specific ESG metrics. 99% of our suppliers through ISN have responded in some way to the ESG survey. For total vendor spend approximately 80% of our Services spend is through vendors that are active in ISN platform. Our rationale for including approximately 80% of

North America spend - which was bucketed into supply chain, MRO spend and other suppliers, contractors and service providers - was that this approach and level of coverage provides access to a majority of our suppliers by number and spend. The diversity across suppliers that is represented within this 80% coverage also allows us to assess potential differences between companies' current behaviors based on key characteristics (size, revenue, industry, etc.), and develop a context-based approach to ongoing engagement. We have gathered insights from suppliers representing more than 2.4 billion in expenditures. For 2023, the data show that approximately 15% of Mosaic's North American contractors and service providers track GHGs in their operations. Approximately 24% have developed a strategy to reduce greenhouse gas emissions and 25% have identified their sources of direct and indirect greenhouse gas emissions. We will measure success of the engagement by our suppliers' participation in the survey, and by seeing an increase in the number of suppliers who track GHGs or have strategies in place to reduce GHGs. Of note, the sustainability questionnaire can be updated on the ISN platform any time by vendors as their internal processes are updated. The Sustainability KPI's are collected from contractors on an annual basis. Established in 2001, ISN is the global leader in contractor and supplier information management.

(5.11.7.10) Engagement is helping your tier 1 suppliers meet an environmental requirement related to this environmental issue

Select from:

☑ No, this engagement is unrelated to meeting an environmental requirement

(5.11.7.11) Engagement is helping your tier 1 suppliers engage with their own suppliers on the selected action

Select from:

☑ Unknown

Water

(5.11.7.2) Action driven by supplier engagement

Select from:

☑ Total water withdrawal volumes reduction

(5.11.7.3) Type and details of engagement

Information collection

☑ Collect environmental risk and opportunity information at least annually from suppliers

☑ Other information collection activity, please specify **:**We introduced a supplier survey to assess our North American suppliers' performance in key ESG areas, including do they track water volumes and management. We utilize the platform ISN which includes ESG metrics along with specific Mosaic ESG metrics.

(5.11.7.4) Upstream value chain coverage

Select all that apply

☑ Tier 1 suppliers

(5.11.7.5) % of tier 1 suppliers by procurement spend covered by engagement

Select from:

☑ 76-99%

(5.11.7.7) % tier 1 suppliers with substantive impacts and/or dependencies related to this environmental issue covered by engagement

Select from:

☑ 1-25%

(5.11.7.9) Describe the engagement and explain the effect of your engagement on the selected environmental action

In North America, we assess our suppliers' ESG performance, including water and waste management, through a survey on the ISN platform, which includes ESG metrics. 99% of suppliers on ISN have responded, covering approximately 80% of our services spend. The substantive impact reflects only respondents in ISN who reported to track water use in their operations. Mosaic has not yet established the cut-off /threshold criteria for defining material/substantive water impacts of suppliers.

(5.11.7.11) Engagement is helping your tier 1 suppliers engage with their own suppliers on the selected action

Select from:

☑ Unknown

[Add row]

(5.11.9) Provide details of any environmental engagement activity with other stakeholders in the value chain.

Climate change

(5.11.9.1) Type of stakeholder

Select from:

☑ Customers

(5.11.9.2) Type and details of engagement

Innovation and collaboration

☑ Run a campaign to encourage innovation to reduce environmental impacts

(5.11.9.3) % of stakeholder type engaged

Select from:

☑ 76-99%

(5.11.9.4) % stakeholder-associated scope 3 emissions

Select from:

☑ 51-75%

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

We know it is important to contribute to solutions that address the impacts of crop nutrient products on the environment, including management of emissions associated with ammoniated fertilizer products like the ones Mosaic sells to customers in 40 countries around the globe. Mosaic supports the reduction of greenhouse gas emissions from the activities related to global food supply by encouraging stakeholders in the value chain, including direct retailer customers who interact directly with the end users of our products, to enhance their understanding, adoption and promotion of 4R Nutrient Stewardship practices. By applying the right fertilizer at the right rate, right time and in the right place, farmers manage environmental impacts associated with fertilizer use, including potential greenhouse gas emissions (namely the release of N2O). We select this group of customers due to their farming practices in key growing regions. The nutrient service providers who supply them crop nutrients are Mosaic's direct customers, and they represent roughly 80% of total nutrient services providers in North America. Similarly important to our rationale, the use of sold products category, which this initiative addresses, represents approximately 67% of our total scope 3 emissions (category 11).

(5.11.9.6) Effect of engagement and measures of success

We measure success of this engagement in a variety of ways, including the number of acres under the guidance of 4R Nutrient Stewardship Certification programs in the United States and Canada. As of 2023, we have facilitated adoption of 4R Nutrient Stewardship practices on more than 15.7 million acres, representing an *increase of 2.7 million acres, or 21% since 2022. Our measure of success is to have facilitated the adoption of 4R practices on 25 million acres by 2025. Considering a 2019 baseline of 3.9 million acres, we were approximately 63% to the 2025 target as of the end of 2023 with 15.7 million acres under management. These nutrient service providers, the majority of which are Mosaic's direct customers, represent approximately 80% of total nutrient services providers in North America.*

Water

(5.11.9.1) Type of stakeholder

Select from:

☑ Customers

(5.11.9.2) Type and details of engagement

Education/Information sharing

☑ Educate and work with stakeholders on understanding and measuring exposure to environmental risks

☑ Run an engagement campaign to educate stakeholders about the environmental impacts about your products, goods and/or services

(5.11.9.3) % of stakeholder type engaged

Select from:

☑ None

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

As it relates to the use of our products, crop nutrient products like those Mosaic manufactures have the potential to run off farmland and into waterways, which can contribute to impaired water quality. Mosaic's efforts to improve water performance extends to our value chain. We prioritize collaboration as a form of engagement based on criteria such as the significance of the issue the engagement addresses, its impact on Mosaic or our stakeholders, and its potential outcome. For example, one of the most relevant water-related risks associated with our business involves the potential for runoff of phosphate nutrients into waterways. Our strategy includes supporting best agricultural practices, including research and practices to manage adverse water impacts associated with the use of our products. Mosaic supports promotion of agricultural best practices by encouraging stakeholders, including direct retailer customers, to enhance their understanding, adoption and promotion of 4R Nutrient Stewardship (4Rs). More specifically, by applying the right fertilizer at the right rate, right time and in the right place, growers manage environmental impacts associated with fertilizer use, including agricultural runoff from farmlands into waterways. We select this group of customers (growers) due to their farming practices in key watersheds.

(5.11.9.6) Effect of engagement and measures of success

We measure success of this engagement in a variety of ways, including the number of acres under the guidance of nutrient service providers that have earned 4R Nutrient Stewardship Certification through the Nutrient Stewardship Council's 4R Nutrient Stewardship Certification Program. As of 2023, more than 110 nutrient service providers servicing 19,000 farmers are certified and validated, representing a 253% increase in acres under management since 2019. As further evidence of our prioritizing this topic, in 2020 we established a target to further empower farmers in key areas to reduce the impact of crop nutrients on the environment by facilitating the implementation of 4Rs on 25 million acres by 2025. As of the end of 2023, we have facilitated adoption of 4R practices on more than 15.7 million acres in the United States and Canada.

Climate change

(5.11.9.1) Type of stakeholder

Select from:

☑ Other value chain stakeholder, please specify :International Fertilizer Industry

(5.11.9.2) Type and details of engagement

Innovation and collaboration

☑ Collaborate with stakeholders on innovations to reduce environmental impacts in products and services

(5.11.9.3) % of stakeholder type engaged

Select from:

☑ 100%

(5.11.9.4) % stakeholder-associated scope 3 emissions

Select from:

☑ 51-75%

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

The purpose of this report is to examine the opportunities to reduce the industry's downstream Scope 3 emissions from fertilizer use, and the scope to support carbon removals from the atmosphere through soil carbon sequestration. Implementing the recommendations in this report, and meeting the decarbonization challenge head-on, will help secure the long-term economic and environmental sustainability of the entire food system and create a crop nutrition sector for the future. At a time when the availability and affordability of food and fertilizer are under great pressure, it is more essential than ever to put the industry on a sustainable footing.

(5.11.9.6) Effect of engagement and measures of success

In 2022 The International Fertilizer Associated (IFA) published the report "Reducing Emissions from Fertilizer Use". IFA is a global fertilizer association with 400 members and a mission to promote the efficient and responsible production, distribution and use of plant nutrients. This document is a publication from Systemiq, commissioned by the IFA and funded by ten IFA members. Mosaic was a "Gold level" sponsor for the report. Quoting from the report: "The fertilizer industry is pursuing the development of a Sectoral Decarbonization Approach to enable it to set Science Based Targets for its Scope 1 and 2 emissions. This will build on existing work to decarbonize ammonia production. The purpose of this report is to examine the opportunities to reduce the industry's downstream Scope 3 emissions from fertilizer use, and the scope to support carbon removals from the atmosphere through soil carbon sequestration. Implementing the recommendations in this report, and meeting the decarbonization challenge head-on, will help secure the long-term economic and environmental sustainability of the entire food system and create a crop nutrition sector for the future. At a time when the availability and affordability of food and fertilizer are under great pressure, it is more essential than ever to put the industry on a sustainable footing." The percentage of stakeholder associated emissions is based on IFA 2019 data published on this report for global mineral nitrogen fertilizer use.

Climate change

(5.11.9.1) Type of stakeholder

Select from:

☑ Customers

(5.11.9.2) Type and details of engagement

Education/Information sharing

☑ Run an engagement campaign to educate stakeholders about the environmental impacts about your products, goods and/or services

(5.11.9.3) % of stakeholder type engaged

Select from:

☑ 100%

(5.11.9.4) % stakeholder-associated scope 3 emissions

Select from:

☑ 1-25%

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

Mosaic is actively engaged in select projects for Partnerships for climate smart commodities, such as the Rice Stewardship Partnership for Climate-Smart Commodities. Direct from USDA website - USDA is committed to supporting a diverse range of farmers, ranchers, and private forest landowners through Partnerships for Climate-Smart Commodities. This effort will expand markets for America's climate-smart commodities, leverage the greenhouse gas benefits of climate-smart commodity production, and provide direct, meaningful benefits to production agriculture, including for small and underserved producers. USDA is investing more than 3.1 billion for 141 projects through this effort and all the projects require meaningful involvement of small and underserved producers.

(5.11.9.6) Effect of engagement and measures of success

The Rice Stewardship Partnership project (which Mosaic is actively engaged in) will build climate-smart rice markets and work to reduce methane emissions in rice production through the adoption of alternate wetting and drying, furrow irrigation, and other climate-smart practices and support underserved producers by improving critical infrastructure necessary to implement climate-smart practices in the future. This project plans to work with Black and underserved producers to leverage over 60 Climate-Smart practices and scenarios. USA rice plans to work with monitoring partners to certify quantified emission reductions for grain produced through this pilot and promote marketing assistance. We have included 100% of Rice Stewardship Partnership for Climate-Smart Commodities in the consideration of this metric. The percentage of stakeholder associated emissions is based on US EPA data for total rice cultivations compared to total agricultural greenhouse gas emissions from 2022.

Climate change

(5.11.9.1) Type of stakeholder

Select from:

☑ Investors and shareholders

(5.11.9.2) Type and details of engagement

Education/Information sharing

☑ Share information on environmental initiatives, progress and achievements

(5.11.9.3) % of stakeholder type engaged

Select from:

☑ 100%

(5.11.9.4) % stakeholder-associated scope 3 emissions

Select from:

☑ 100%

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

Mosaic engages with shareholders and investors through annual ESG updates and routine ESG communications.

(5.11.9.6) Effect of engagement and measures of success

Our success is in part measured by external rating bodies. In 2023, we scored a 3.7 (out of a total possible score of 5) from FTSE and "A" from MSCI.

Water

(5.11.9.1) Type of stakeholder

Select from:

☑ Investors and shareholders

(5.11.9.2) Type and details of engagement

Education/Information sharing

☑ Share information on environmental initiatives, progress and achievements

(5.11.9.3) % of stakeholder type engaged

Select from:

☑ 100%

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

Mosaic engages with shareholders and investors through annual ESG updates and routine ESG communications.

(5.11.9.6) Effect of engagement and measures of success

Our success is in part measured by external rating bodies. In 2023, we scored a 3.7 (out of a total possible score of 5) from FTSE and "A" from MSCI.
[Add row]

(5.13) Has your organization already implemented any mutually beneficial environmental initiatives due to CDP Supply Chain member engagement?

	Environmental initiatives implemented due to CDP Supply Chain member engagement	Primary reason for not implementing environmental initiatives	Explain why your organization has not implemented any environmental initiatives
	Select from: ☑ No, but we plan to within the next two years	*Select from:* ☑ No standardized procedure	*We engage with our suppliers but not with the CDP supplier engagement tool at this stage.*

[Fixed row]

C6. Environmental Performance - Consolidation Approach

(6.1) Provide details on your chosen consolidation approach for the calculation of environmental performance data.

	Consolidation approach used	Provide the rationale for the choice of consolidation approach
Climate change	*Select from:* ☑ Operational control	*Companies, entities or groups over which operational control is exercised*
Water	*Select from:* ☑ Operational control	*Companies, entities or groups over which operational control is exercised*
Plastics	*Select from:* ☑ Operational control	*Companies, entities or groups over which operational control is exercised*
Biodiversity	*Select from:* ☑ Operational control	*Companies, entities or groups over which operational control is exercised*

[Fixed row]

C7. Environmental performance - Climate Change

(7.1) Is this your first year of reporting emissions data to CDP?

Select from:
☑ No

(7.1.1) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

	Has there been a structural change?
	Select all that apply ☑ No

[Fixed row]

(7.1.2) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?
	Select all that apply ☑ No

[Fixed row]

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

Select all that apply

☑ US EPA Mandatory Greenhouse Gas Reporting Rule

☑ The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Standard

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

☑ US EPA Center for Corporate Climate Leadership: Indirect Emissions From Purchased Electricity

☑ US EPA Center for Corporate Climate Leadership: Direct Emissions from Mobile Combustion Sources

☑ Other, please specify :1-stoichiometric mass balance for reactive species containing CO2 or Carbon compounds to estimate emissions 2-mass balance from European Fertilizer Manufacturers Association Guidance for Ammonia Manufacturing to estimate emissions from ammonia prod.

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

(7.3.1) Scope 2, location-based

Select from:

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

(7.3.2) Scope 2, market-based

Select from:

☑ We are reporting a Scope 2, market-based figure

(7.3.3) Comment

Market based emissions available for most locations in the United States, Brazil and Saskatchewan. We do not have market-based emission factors available for sites in Peru or Paraguay at this time.
[Fixed row]

(7.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?

Select from:
☑ No

(7.5) Provide your base year and base year emissions.

Scope 1

(7.5.1) Base year end

12/31/2015

(7.5.2) Base year emissions (metric tons CO2e)

3432104.132

(7.5.3) Methodological details

This metric accounts for direct GHG emissions from source activities controlled or owned by Mosaic and includes carbon dioxide (CO2), methane (CH4) and nitrous oxide (N2O). HFCs, PFCs and SF6 are not captured due to immateriality in our operations (represent less than 1% of our total Scope 1 and 2 GHG emissions). Total emissions are reported in CO2e which is calculated based on the 100-year Global Warming Potential (GWP) recommended by the Fourth Assessment Report of the Inter-governmental Panel on Climate Change (IPCC).

Scope 2 (location-based)

(7.5.1) Base year end

12/31/2015

(7.5.2) Base year emissions (metric tons CO2e)

1462872.795

(7.5.3) Methodological details

This metric accounts for indirect GHG emissions associated with the generation of imported/ purchased electricity, heat or steam consumed within Mosaic operations. For operations in the United States, we utilize emission factors from EPA's Emissions & Generation Resource Integrated Database (eGRID). For operations outside US, we source emission factors from other official databases (e.g. governments, IEA).

Scope 2 (market-based)

(7.5.1) Base year end

12/31/2015

(7.5.2) Base year emissions (metric tons CO2e)

1462872.795

(7.5.3) Methodological details

This metric accounts for indirect GHG emissions associated with the generation of imported/ purchased electricity, heat or steam consumed within Mosaic operations. We utilize supplier-specific emission factors provided by the utilities companies. Market based emissions available for most locations in the United States, Brazil and Saskatchewan. We do not have market-based emission factors available for sites in Peru or Paraguay.

Scope 3 category 1: Purchased goods and services

(7.5.1) Base year end

12/31/2020

(7.5.2) Base year emissions (metric tons CO2e)

2415226

(7.5.3) Methodological details

Category 1 emissions are associated with the purchase of ammonia for production of phosphate crop nutrients and use in smaller applications at our Esterhazy, Saskatchewan complex. This category is calculated using the average-data method.

Scope 3 category 2: Capital goods

(7.5.1) Base year end

12/31/2020

(7.5.2) Base year emissions (metric tons CO2e)

300000.0

(7.5.3) Methodological details

Category 2 emissions are associated with the company's capital expenditures. This category is calculated using the spend-based method.

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

(7.5.1) Base year end

12/31/2020

(7.5.2) Base year emissions (metric tons CO2e)

498116.0

(7.5.3) Methodological details

This category includes the emissions related to the production of fuels and energy purchased and consumed by our company. We applied the DEFRA WTT and TD emission factors to purchased electricity and fuels, respectively.

Scope 3 category 4: Upstream transportation and distribution

(7.5.1) Base year end

12/31/2020

(7.5.2) Base year emissions (metric tons CO2e)

246754.0

(7.5.3) Methodological details

This category includes emissions from trucking, rail and maritime movements paid for by Mosaic. Emissions from trucking are calculated with a fuel-based method. Since our partners can't provide exact fuel usage to Mosaic-related trips, we calculate fuel based on miles traveled and average fuel efficiency. We calculate emissions from rail trip with the assistance from our rail vendors. When the vendors have CO2e emissions available, we utilize this information rather than calculating it ourselves given vendors have their own EF, thus more accurate numbers. The exception to this approach is our Brazil rail movements, where we still rely on a fuel-based method. We calculate emissions from maritime movements using either the haulage method (ton.mile) and the fuels-based method, depending on availability of data.

Scope 3 category 5: Waste generated in operations

(7.5.1) Base year end

12/31/2020

(7.5.2) Base year emissions (metric tons CO2e)

2787.0

(7.5.3) Methodological details

This category includes emissions associated with our disposal of non-mining wastes generated from our mines and manufacturing facilities. For wastes of "unknown" or mixed categories, we assigned an average of landfill factors for construction debris as provided by the DEFRA standard. We applied DEFRA emission factors for waste categories by treatment/disposal method.

Scope 3 category 6: Business travel

(7.5.1) Base year end

12/31/2020

(7.5.2) Base year emissions (metric tons CO2e)

619.0

(7.5.3) Methodological details

We currently do not calculate emissions for this category since emissions represent less than 1% of our total Scope 3 footprint, an impact we consider immaterial. Nonetheless, we will continue to revisit this category to assess its materiality to our total scope 3 footprint.

Scope 3 category 7: Employee commuting

(7.5.1) Base year end

12/31/2020

(7.5.2) Base year emissions (metric tons CO2e)

30000.0

(7.5.3) Methodological details

Based on experience with collecting data for this category, we estimate that employee commuting represents less than 0.05% of our total scope 3 footprint. Given the recent change of our workforce to partially working remotely, we anticipate it became even lower from 2020 onwards. We will continue to revisit this category to assess its materiality to our total scope 3 footprint.

Scope 3 category 8: Upstream leased assets

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

Emissions associated with leased assets under Mosaic's operational control including land, pumps, autos, mobile equipment and railcars are accounted for in Scope 1 and 2 inventories. Emissions associated with other upstream leased assets (IT equipment, copiers, etc.) are estimated to represent less than 0.1% of total scope 3 emissions. This is logical and in line with expectations considering the emissions accounted for in purchased goods and services, fuel- and energy-related activities and use of sold products categories.

Scope 3 category 9: Downstream transportation and distribution

(7.5.1) Base year end

12/31/2020

(7.5.2) Base year emissions (metric tons CO2e)

25000.0

(7.5.3) Methodological details

Based on Greenhouse Gas Protocol's Corporate Value Chain Accounting and Reporting Standard, a majority of Mosaic's shipments of finished products are accounted for within the Upstream Transportation category; however, we estimate that approximately 5% of maritime movements are considered downstream, which would represent less than 1% of companywide scope 3 emissions.

Scope 3 category 10: Processing of sold products

(7.5.1) Base year end

12/31/2020

(7.5.2) Base year emissions (metric tons CO2e)

5832.0

(7.5.3) Methodological details

Includes all metric tons of crop nutrients sold in North America and assumes that they are blended at the distributor level.

Scope 3 category 11: Use of sold products

(7.5.1) Base year end

12/31/2020

(7.5.2) Base year emissions (metric tons CO2e)

4798346.0

(7.5.3) Methodological details

The emissions associated with use of sold products are from 2019 IPCC N2O emissions from managed soils. We apply a Tier 1 methodology, which does not take into account different land cover, soil types, climatic conditions or management practices.

Scope 3 category 12: End of life treatment of sold products

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

This category is not applicable since Mosaic's principal products are crop nutrients, which are applied to the soil and then taken up by plants; the plants can be used for human or animal food.

Scope 3 category 13: Downstream leased assets

(7.5.1) Base year end

12/31/2020

(7.5.2) Base year emissions (metric tons CO2e)

216380.0

(7.5.3) Methodological details

This category includes emissions related to cattle grazing in the lands we own and lease. We utilize EPA's calculation for enteric fermentation which assumes mature cows in the South Atlantic region of the United States, applying a factor of 69.80 CH4 per cow. Figure also assumes 2 cows per acre of land leased for cattle grazing.

Scope 3 category 14: Franchises

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

This category is not applicable since Mosaic does not operate franchises.

Scope 3 category 15: Investments

(7.5.1) Base year end

12/31/2020

(7.5.2) Base year emissions (metric tons CO2e)

631470.0

(7.5.3) Methodological details

This category represents emissions associated with our 25% equity share investment in Ma'aden Wa'ad Al Shamal Phosphate Company in the Kingdom of Saudi Arabia and includes emissions associated with fuels, purchased electricity and phosphate rock consumption.

Scope 3: Other (upstream)

(7.5.2) Base year emissions (metric tons CO2e)

0.0

(7.5.3) Methodological details

Not applicable to Mosaic operations. Downstream emissions accounted for in other categories

Scope 3: Other (downstream)

(7.5.2) Base year emissions (metric tons CO2e)

0.0

(7.5.3) Methodological details

Not applicable to Mosaic operations. Downstream emissions accounted for in other categories
[Fixed row]

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

Reporting year

(7.6.1) Gross global Scope 1 emissions (metric tons CO2e)

3488313.79

(7.6.3) Methodological details

This metric accounts for direct GHG emissions from source activities controlled or owned by Mosaic and includes carbon dioxide (CO2), methane (CH4) and nitrous oxide (N2O). HFCs, PFCs and SF6 are not captured due to immateriality in our operations (represent less than 1% of our total Scope 1 and 2 GHG emissions). Total emissions are reported in CO2e which is calculated based on the 100-year Global Warming Potential (GWP) recommended by the Fourth Assessment Report of the Inter-governmental Panel on Climate Change (IPCC).
[Fixed row]

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

Reporting year

(7.7.1) Gross global Scope 2, location-based emissions (metric tons CO2e)

1173899.38

(7.7.2) Gross global Scope 2, market-based emissions (metric tons CO2e) (if applicable)

1208681.35

(7.7.4) Methodological details

This metric accounts for indirect GHG emissions associated with the generation of imported/ purchased electricity, heat or steam consumed within Mosaic operations. Location-based emissions: For operations in the United States, we utilize emission factors from EPA's Emissions & Generation Resource Integrated Database (eGRID). For operations outside US, we source emission factors from other official databases (e.g. governments, IEA). Market-based emissions: we utilize supplier-specific emission factors provided by the utility's companies. Market based emissions available for most locations in the United States, Brazil and Saskatchewan. We do not have market-based emission factors available for sites in Peru or Paraguay.
[Fixed row]

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

Purchased goods and services

(7.8.1) Evaluation status

Select from:
☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

1672859

(7.8.3) Emissions calculation methodology

Select all that apply
☑ Average data method

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

0

(7.8.5) Please explain

Category 1 emissions are associated with the purchase of ammonia for production of phosphate crop nutrients and use in smaller applications at our Esterhazy, Saskatchewan complex. This category was assured by ERM CVS as part of limited assurance on total Scope 3 GHG emissions.

Capital goods

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

339448

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Spend-based method

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

0

(7.8.5) Please explain

Category 2 emissions are associated with the company's capital expenditures.

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

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

884167

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Average product method

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

0

(7.8.5) Please explain

This category includes the emissions related to the production of fuels and energy purchased and consumed by our company. We applied the DEFRA WTT and TD emission factors to purchased electricity and fuels, respectively. This category was assured by ERM CVS as part of limited assurance on total Scope 3 GHG emissions.

Upstream transportation and distribution

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

723876

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Supplier-specific method

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

100

(7.8.5) Please explain

This category includes emissions from trucking, rail and maritime movements paid for by Mosaic. Only trucking and rail emissions were assured by ERM CVS as part of limited assurance on total Scope 3 GHG emissions.

Waste generated in operations

(7.8.1) Evaluation status

Select from:

☑ Not relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

16556

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Waste-type-specific method

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

100

(7.8.5) Please explain

Applied 2024 DEFRA factors for waste categories by treatment/disposal method, except for recycled industrial refuse in which we use the 2021 emission factor since that is no longer available after 2021. This category was not assured by ERM CVS for the 2023 reporting year. It includes emissions associated with our disposal of non-mining wastes generated from our mines and manufacturing facilities. For wastes of "unknown" or mixed categories, we assigned an average of landfill factors for construction debris as provided by the DEFRA standard.

Business travel

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

We have collected data for this category for the last 5 years and emissions represent less than 1% of our total scope 3 footprint, an impact we consider immaterial. Due to this category not meeting our internal material reporting threshold, we opted not to collect this data in 2023 instead seeking assurance on more material categories. We will continue to revisit this category to assess its materiality to our total scope 3 footprint.

Employee commuting

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Based on experience with collecting data for this category, we estimate that employee commuting represents less than 0.05% of our total scope 3 footprint. Given the recent change of our workforce to partially working remotely, we anticipate it has been even lower from 2020 onwards. We will continue to revisit this category to assess its materiality to our total scope 3 footprint.

Upstream leased assets

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Emissions associated with leased assets under Mosaic's operational control including land, pumps, autos, mobile equipment and railcars are accounted for in Scope 1 and 2 inventories. Emissions associated with other upstream leased assets (IT equipment, copiers, etc.) are estimated to represent less than 0.1% of total scope 3 emissions. This is logical and in line with expectations considering the emissions accounted for in purchased goods and services, fuel- and energy-related activities and use of sold products categories.

Downstream transportation and distribution

(7.8.1) Evaluation status

Select from:

☑ Not relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

11630

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Average product method

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

100

(7.8.5) Please explain

Based on Greenhouse Gas Protocol's Corporate Value Chain Accounting and Reporting Standard, a majority of Mosaic's shipments of finished products are accounted for within the Upstream Transportation category; however, we estimate that approximately 5% of maritime movements are considered downstream, which would represent approximately 1% of companywide scope 3 emissions.

Processing of sold products

(7.8.1) Evaluation status

Select from:

☑ Not relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

5386

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Hybrid method

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

0

(7.8.5) Please explain

Includes all tonnes of crop nutrients sold in North America and assumes that they are blended at the distributor level. This value was not assured by ERM CVS

Use of sold products

(7.8.1) Evaluation status

Select from:
☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

8065953

(7.8.3) Emissions calculation methodology

Select all that apply
☑ Other, please specify :2019 IPCC methodology

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

0

(7.8.5) Please explain

The emissions associated with use of sold products is from 2019 IPCC N2O emissions from managed soils. We applied a Tier 1 methodology, which does not take into account different land cover, soil types, climatic conditions or management practices. This category was assured by ERM CVS as part of limited assurance on total Scope 3 GHG emissions.

End of life treatment of sold products

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Not applicable because there are no emissions associated with the end-of-life treatment of our sold products. Mosaic's principal products are crop nutrients, which are applied to the soil and then taken up by plants; the plants can be used for human or animal food.

Downstream leased assets

(7.8.1) Evaluation status

Select from:

☑ Not relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

279200

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Other, please specify :EPA calculation for enteric fermentation.

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

0

(7.8.5) Please explain

Notes: EPA calculation for enteric fermentation assumes mature cows in the South Atlantic region of the United States, applying a factor of 69.80 CH4 per cow. Figure assumes 2 cows per acre of land leased for cattle grazing.

Franchises

(7.8.1) Evaluation status

Select from:
☑ Not relevant, explanation provided

(7.8.5) Please explain

Not applicable to Mosaic operations. Mosaic does not operate franchises.

Investments

(7.8.1) Evaluation status

Select from:
☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

769907

(7.8.3) Emissions calculation methodology

Select all that apply
☑ Investment-specific method

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

100

(7.8.5) Please explain

This figure represents emissions associated with our 25% equity share investment in Ma'aden Wa'ad Al Shamal Phosphate Company in the Kingdom of Saudi Arabia and includes emissions associated with fuels, purchased electricity and phosphate rock consumption. It does not include other equity method investments. ERM CVS has reviewed this category; please refer to ERM CVS' Assurance Report for more information.

Other (upstream)

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Not applicable to Mosaic operations. Downstream emissions accounted for in other categories

Other (downstream)

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Not applicable to Mosaic operations. Downstream emissions accounted for in other categories
[Fixed row]

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

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

[Fixed row]

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

Row 1

(7.9.1.1) Verification or assurance cycle in place

Select from:

☑ Annual process

(7.9.1.2) Status in the current reporting year

Select from:

☑ Complete

(7.9.1.3) Type of verification or assurance

Select from:

☑ Limited assurance

(7.9.1.4) Attach the statement

Mosaic 2023_Limited Assurance Report_FINAL (1).pdf

(7.9.1.5) Page/section reference

1-2

(7.9.1.6) Relevant standard

Select from:
☑ ISAE3000

(7.9.1.7) Proportion of reported emissions verified (%)

100
[Add row]

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

Row 1

(7.9.2.1) Scope 2 approach

Select from:
☑ Scope 2 location-based

(7.9.2.2) Verification or assurance cycle in place

Select from:
☑ Annual process

(7.9.2.3) Status in the current reporting year

Select from:
☑ Complete

(7.9.2.4) Type of verification or assurance

Select from:
☑ Limited assurance

(7.9.2.5) Attach the statement

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(7.9.2.6) Page/ section reference

1-2

(7.9.2.7) Relevant standard

Select from:
☑ ISAE3000

(7.9.2.8) Proportion of reported emissions verified (%)

100
[Add row]

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

Row 1

(7.9.3.1) Scope 3 category

Select all that apply

☑ Scope 3: Purchased goods and services

☑ Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

☑ Scope 3: Upstream transportation and distribution

☑ Scope 3: Investments

☑ Scope 3: Use of sold products

(7.9.3.2) Verification or assurance cycle in place

Select from:

☑ Annual process

(7.9.3.3) Status in the current reporting year

Select from:

☑ Complete

(7.9.3.4) Type of verification or assurance

Select from:

☑ Limited assurance

(7.9.3.5) Attach the statement

Mosaic 2023_Limited Assurance Report_FINAL (1).pdf

(7.9.3.6) Page/section reference

Pages 1-2. Total Scope 3 emissions assured by ERM CVS was 11,884,164.71 tCO2e. ERM CVS assured total Scope 3 (inclusive of categories 1, 3, 4, 11, and 15) with a qualified conclusion on Category 15 - please see ERM CVS' Assurance Report for more information.

(7.9.3.7) Relevant standard

Select from:

☑ ISAE3000

(7.9.3.8) Proportion of reported emissions verified (%)

100
[Add row]

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

Select from:
☑ Increased

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

Change in renewable energy consumption

(7.10.1.1) Change in emissions (metric tons CO2e)

37255

(7.10.1.2) Direction of change in emissions

Select from:
☑ Decreased

(7.10.1.3) Emissions value (percentage)

0.85

(7.10.1.4) Please explain calculation

One of our mining sites in Florida has partnered with a local electricity supplier in 2023 to support solar energy through a subscription and earn bill credits and renewable energy certificates (RECs) on its subscriptions' portion of generation. This project decreased our overall emissions by 0.85%. We arrived at this *percentage by dividing the reduction from the renewable energy consumption (37,255 tCO2e) by the 2022 total emissions (4,389,340 tCO2e). (37,255/4,389,340) * 100 0.85%*

Other emissions reduction activities

(7.10.1.1) Change in emissions (metric tons CO2e)

25406

(7.10.1.2) Direction of change in emissions

Select from:

☑ Decreased

(7.10.1.3) Emissions value (percentage)

0.58

(7.10.1.4) Please explain calculation

*Companywide emissions savings projects for 2023 decreased our overall emissions by 0.58%. We arrived at this percentage by dividing the reduction from projects (25,406 tCO2e) by the 2022 total emissions (4,389,340 tCO2e). (25,406/4,389,340) * 100 0.58%*

Divestment

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:

☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

Not applicable.

Acquisitions

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

Not applicable.

Mergers

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

Not applicable.

Change in output

(7.10.1.1) Change in emissions (metric tons CO2e)

198103

(7.10.1.2) Direction of change in emissions

Select from:

☑ Increased

(7.10.1.3) Emissions value (percentage)

4.51

(7.10.1.4) Please explain calculation

*Due to a year-over-year increase in ammonia production, we experienced an increase in tonnes of CO2e. Overall, there was a 4.51% increase in emissions attributed to this change. We arrived at this percentage by dividing the total CO2e Impact of the changes in output (198,103) and then dividing by the 2022 total emissions (4,389,340 tCO2e). (198,103/4,389,340) * 100 4.51%*

Change in methodology

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

Not applicable.

Change in boundary

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

Not applicable.

Change in physical operating conditions

(7.10.1.1) Change in emissions (metric tons CO2e)

135821

(7.10.1.2) Direction of change in emissions

Select from:
☑ Increased

(7.10.1.3) Emissions value (percentage)

3.09

(7.10.1.4) Please explain calculation

*Cogeneration challenges at some manufacturing sites in 2023 resulted in less self-generated electricity available. In order to fill the internal demand gap, we imported more electricity from the rid which caused an increase in our Scope 2 emissions. Also, operations extension in Florida required higher consumption of fuels for machinery/ construction, which also led to increased Scope 1 emissions. Both changes resulted in companywide emissions increase of 3.09%. We arrived at this percentage by dividing the total CO2e impact of the changes in physical operating conditions (135,821) and then dividing by the 2022 total emissions (4,389,340 tCO2e). (135,821/4,389,340) * 100 3.09%*

Unidentified

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

Not applicable.

Other

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:

☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

Not applicable.
[Fixed row]

(7.10.2) Are your emissions performance calculations in 7.10 and 7.10.1 based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Select from:

☑ Location-based

(7.12) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

Select from:

☑ No

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

Select from:

☑ Yes

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

Row 1

(7.15.1.1) Greenhouse gas

Select from:
☑ CO_2

(7.15.1.2) Scope 1 emissions (metric tons of CO_2e)

3480725.6

(7.15.1.3) GWP Reference

Select from:
☑ IPCC Fourth Assessment Report (AR4 - 100 year)

Row 2

(7.15.1.1) Greenhouse gas

Select from:
☑ CH_4

(7.15.1.2) Scope 1 emissions (metric tons of CO_2e)

2195.57

(7.15.1.3) GWP Reference

Select from:
☑ IPCC Fourth Assessment Report (AR4 - 100 year)

Row 3

(7.15.1.1) Greenhouse gas

Select from:
☑ N2O

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

3598.02

(7.15.1.3) GWP Reference

Select from:
☑ IPCC Fourth Assessment Report (AR4 - 100 year)
[Add row]

(7.16) Break down your total gross global Scope 1 and 2 emissions by country/area.

	Scope 1 emissions (metric tons CO2e)	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Brazil	*537789.28*	*39977.95*	*40147.11*
Canada	*862448.5*	*372029.01*	*347902.14*
China	*199.64*	*294.72*	*294.72*
Paraguay	*275.82*	*0.12*	*0.12*

	Scope 1 emissions (metric tons CO2e)	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Peru	*200075.38*	*18178.78*	*18178.78*
United States of America	*1887525.17*	*743418.8*	*802138.03*

[Fixed row]

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

Select all that apply

☑ By business division

☑ By facility

(7.17.1) Break down your total gross global Scope 1 emissions by business division.

	Business division	Scope 1 emissions (metric ton CO2e)
Row 1	*Phosphate*	*2039743.49*
Row 3	*Potash*	*893868.54*
Row 4	*Distribution*	*16636.65*
Row 5	*Fertilizantes*	*538065.1*

[Add row]

(7.17.2) Break down your total gross global Scope 1 emissions by business facility.

Row 1

(7.17.2.1) Facility

Bartow

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

153483.71

(7.17.2.3) Latitude

27.907545

(7.17.2.4) Longitude

-81.800537

Row 3

(7.17.2.1) Facility

Alto Araguaia

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

0

(7.17.2.3) Latitude

-17.151678

(7.17.2.4) Longitude

53.192689

Row 4

(7.17.2.1) Facility

Green Bay

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

48933.57

(7.17.2.3) Latitude

27.820769

(7.17.2.4) Longitude

-81.784767

Row 5

(7.17.2.1) Facility

Uberaba II

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

222.5

(7.17.2.3) Latitude

-19.788737

(7.17.2.4) Longitude

-47.943228

Row 6

(7.17.2.1) Facility

Paranagua II

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

363.97

(7.17.2.3) Latitude

-25.531969

(7.17.2.4) Longitude

-48.549938

Row 7

(7.17.2.1) Facility

Rondonópolis

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

388.96

(7.17.2.3) Latitude

-16.619864

(7.17.2.4) Longitude

-54.701082

Row 8

(7.17.2.1) Facility

Taquari-Vassouras

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

8546.53

(7.17.2.3) Latitude

-10.651971

(7.17.2.4) Longitude

-37.03583

Row 9

(7.17.2.1) Facility

Hookers Point

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

137.81

(7.17.2.3) Latitude

27.917532

(7.17.2.4) Longitude

-82.439013

Row 10

(7.17.2.1) Facility

Tapira

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

86811.22

(7.17.2.3) Latitude

-19.842885

(7.17.2.4) Longitude

-46.852427

Row 11

(7.17.2.1) Facility

Bonnie

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

373.59

(7.17.2.3) Latitude

27.863068

(7.17.2.4) Longitude

-81.932498

Row 12

(7.17.2.1) Facility

Taft

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

0

(7.17.2.3) Latitude

30.019122

(7.17.2.4) Longitude

-90.774707

Row 13

(7.17.2.1) Facility

Cajati

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

125559.35

(7.17.2.3) Latitude

-24.714879

(7.17.2.4) Longitude

-48.124609

Row 14

(7.17.2.1) Facility

Rio Verde

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

146.22

(7.17.2.3) Latitude

-17.807942

(7.17.2.4) Longitude

-51.008695

Row 15

(7.17.2.1) Facility

South Pierce

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

6238.96

(7.17.2.3) Latitude

27.765583

(7.17.2.4) Longitude

-81.940331

Row 16

(7.17.2.1) Facility

Candeias

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

85.95

(7.17.2.3) Latitude

-12.66295

(7.17.2.4) Longitude

-38.51944

Row 17

(7.17.2.1) Facility

South Fort Meade

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

19999.13

(7.17.2.3) Latitude

27.647848

(7.17.2.4) Longitude

-81.756477

Row 18

(7.17.2.1) Facility

Uberaba

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

0

(7.17.2.3) Latitude

-19.982393

(7.17.2.4) Longitude

-47.900391

Row 19

(7.17.2.1) Facility

Carnalita

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

63.8

(7.17.2.3) Latitude

-10.651971

(7.17.2.4) Longitude

-37.03583

Row 20

(7.17.2.1) Facility

Savage

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

0

(7.17.2.3) Latitude

44.779415

(7.17.2.4) Longitude

-93.336426

Row 21

(7.17.2.1) Facility

Patrocinio

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

27779.86

(7.17.2.3) Latitude

-19.015003

(7.17.2.4) Longitude

-46.80879

Row 22

(7.17.2.1) Facility

Miski Mayo

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

200075.38

(7.17.2.3) Latitude

-5.802229

(7.17.2.4) Longitude

-81.05289

Row 23

(7.17.2.1) Facility

Esterhazy K2

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

98392.93

(7.17.2.3) Latitude

50.65768

(7.17.2.4) Longitude

-101.848412

Row 24

(7.17.2.1) Facility

Uncle Sam

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

113826.21

(7.17.2.3) Latitude

30.037428

(7.17.2.4) Longitude

-90.827377

Row 25

(7.17.2.1) Facility

Plant City

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

29293.11

(7.17.2.3) Latitude

28.168056

(7.17.2.4) Longitude

-82.141667

Row 26

(7.17.2.1) Facility

Hookers Prairie

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

0

(7.17.2.3) Latitude

27.917828

(7.17.2.4) Longitude

-82.437286

Row 27

(7.17.2.1) Facility

Catalao II

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

44733.65

(7.17.2.3) Latitude

-18.164763

(7.17.2.4) Longitude

-47.905652

Row 28

(7.17.2.1) Facility

Fospar

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

45414.16

(7.17.2.3) Latitude

-25.510841

(7.17.2.4) Longitude

-48.521633

Row 29

(7.17.2.1) Facility

Rio Grande II

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

153.25

(7.17.2.3) Latitude

-32.102711

(7.17.2.4) Longitude

-52.113065

Row 30

(7.17.2.1) Facility

Wingate

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

2233.04

(7.17.2.3) Latitude

27.504131

(7.17.2.4) Longitude

-82.130203

Row 31

(7.17.2.1) Facility

Belle Plaine

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

675575.69

(7.17.2.3) Latitude

50.427658

(7.17.2.4) Longitude

-105.198296

Row 32

(7.17.2.1) Facility

Uberaba III

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

178575

(7.17.2.3) Latitude

-19.993207

(7.17.2.4) Longitude

-47.883844

Row 33

(7.17.2.1) Facility

Campo Grande

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

27.78

(7.17.2.3) Latitude

-21.258281

(7.17.2.4) Longitude

-48.492311

Row 34

(7.17.2.1) Facility

Patos de Minas

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

396.96

(7.17.2.3) Latitude

-18.374014

(7.17.2.4) Longitude

-46.913118

Row 35

(7.17.2.1) Facility

Esterhazy K3

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

11078.29

(7.17.2.3) Latitude

50.646084

(7.17.2.4) Longitude

-101.991946

Row 36

(7.17.2.1) Facility

Esterhazy K1

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

43866.12

(7.17.2.3) Latitude

50.729282

(7.17.2.4) Longitude

-101.933723

Row 37

(7.17.2.1) Facility

Catalão

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

109.58

(7.17.2.3) Latitude

-18.190415

(7.17.2.4) Longitude

-47.970764

Row 38

(7.17.2.1) Facility

Colonsay

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

33535.46

(7.17.2.3) Latitude

51.934105

(7.17.2.4) Longitude

-105.763496

Row 39

(7.17.2.1) Facility

Araxa

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

17833.4

(7.17.2.3) Latitude

-19.629278

(7.17.2.4) Longitude

-46.977984

Row 40

(7.17.2.1) Facility

New Wales

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

325604.41

(7.17.2.3) Latitude

27.832701

(7.17.2.4) Longitude

-82.051048

Row 41

(7.17.2.1) Facility

Tampa Marine

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

86.05

(7.17.2.3) Latitude

27.926672

(7.17.2.4) Longitude

-82.43187

Row 42

(7.17.2.1) Facility

Four Corners

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

29406.05

(7.17.2.3) Latitude

27.646202

(7.17.2.4) Longitude

-82.087097

Row 43

(7.17.2.1) Facility

Villeta

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

275

(7.17.2.3) Latitude

-25.667817

(7.17.2.4) Longitude

-57.690011

Row 44

(7.17.2.1) Facility

Sorriso

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

338.79

(7.17.2.3) Latitude

-12.604993

(7.17.2.4) Longitude

-55.749907

Row 45

(7.17.2.1) Facility

Big Bend

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

97.52

(7.17.2.3) Latitude

27.80416

(7.17.2.4) Longitude

-82.397083

Row 46

(7.17.2.1) Facility

Hopewell

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

0

(7.17.2.3) Latitude

27.915899

(7.17.2.4) Longitude

-82.131219

Row 47

(7.17.2.1) Facility

Pekin

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

48.34

(7.17.2.3) Latitude

40.587875

(7.17.2.4) Longitude

-89.660637

Row 48

(7.17.2.1) Facility

Riverview

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

125846.39

(7.17.2.3) Latitude

27.860191

(7.17.2.4) Longitude

-82.3936

Row 49

(7.17.2.1) Facility

Carlsbad

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

31420.04

(7.17.2.3) Latitude

32.412258

(7.17.2.4) Longitude

-103.939217

Row 50

(7.17.2.1) Facility

Henderson

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

192.06

(7.17.2.3) Latitude

37.815159

(7.17.2.4) Longitude

-87.658173

Row 51

(7.17.2.1) Facility

Faustina

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

980113.83

(7.17.2.3) Latitude

30.083384

(7.17.2.4) Longitude

-90.914391

Row 52

(7.17.2.1) Facility

Port Sutton

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

63.55

(7.17.2.3) Latitude

27.905096

(7.17.2.4) Longitude

-82.410554

Row 53

(7.17.2.1) Facility

South Pasture

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

4316.11

(7.17.2.3) Latitude

27.585763

(7.17.2.4) Longitude

-81.94291

Row 54

(7.17.2.1) Facility

Pine Bend

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

574.55

(7.17.2.3) Latitude

44.740681

(7.17.2.4) Longitude

-93.112228

Row 55

(7.17.2.1) Facility

Paranagua

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

238.05

(7.17.2.3) Latitude

-25.510841

(7.17.2.4) Longitude

-48.521633

Row 56

(7.17.2.1) Facility

Galveston

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

12080.67

(7.17.2.3) Latitude

29.30135

(7.17.2.4) Longitude

-94.7977

Row 57

(7.17.2.1) Facility

Qinhaungdao

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

173.7

(7.17.2.3) Latitude

39.919504

(7.17.2.4) Longitude

119.608111

Row 58

(7.17.2.1) Facility

Yantai

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

25.94

(7.17.2.3) Latitude

37.550464

(7.17.2.4) Longitude

121.38648
[Add row]

(7.19) Break down your organization’s total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Comment
Chemicals production activities	*3488313.79*	*Excludes non-industrial buildings (e.g. offices) and non-production related activities (e.g. management, services, marketing, retail).*

[Fixed row]

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

Select all that apply
☑ By business division
☑ By facility

(7.20.1) Break down your total gross global Scope 2 emissions by business division.

	Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Row 1	*Potash*	*419010.04*	*392717.01*
Row 2	*Distribution*	*4857.58*	*4532.34*
Row 3	*Phosphate*	*710053.7*	*771285.25*
Row 4	*Fertilizantes*	*39978.07*	*40147.23*

[Add row]

(7.20.2) Break down your total gross global Scope 2 emissions by business facility.

Row 1

(7.20.2.1) Facility

Alto Araguaia

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

0

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 2

(7.20.2.1) Facility

Araxa

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

4791.48

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

4853.7

Row 3

(7.20.2.1) Facility

Bartow

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

84289.09

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

88431.9

Row 4

(7.20.2.1) Facility

Belle Plaine

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

34351.47

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

32348.28

Row 5

(7.20.2.1) Facility

Big Bend

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

655.41

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

656.53

Row 6

(7.20.2.1) Facility

Bonnie

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

0

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 7

(7.20.2.1) Facility

Cajati

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

3589.27

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

3635.88

Row 8

(7.20.2.1) Facility

Campo Grande

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

0.09

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0.09

Row 9

(7.20.2.1) Facility

Candeias

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

17.76

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

17.99

Row 10

(7.20.2.1) Facility

Carlsbad

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

46981.03

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

44814.88

Row 11

(7.20.2.1) Facility

Carnalita

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

0

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 12

(7.20.2.1) Facility

Catalão

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

16.99

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

17.21

Row 13

(7.20.2.1) Facility

Catalão II

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

5127.2

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

5193.78

Row 14

(7.20.2.1) Facility

Colonsay

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

68440.96

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

63956.9

Row 15

(7.20.2.1) Facility

Esterhazy K1

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

53223.09

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

49736.06

Row 16

(7.20.2.1) Facility

Esterhazy K2

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

125590.11

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

117361.8

Row 17

(7.20.2.1) Facility

Esterhazy K3

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

90423.38

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

84499.1

Row 18

(7.20.2.1) Facility

Faustina

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

26500.04

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

26144.41

Row 19

(7.20.2.1) Facility

Fort Green

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

0

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 20

(7.20.2.1) Facility

Fospar

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

1567.68

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

1238.04

Row 21

(7.20.2.1) Facility

Four Corners

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

275369.17

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

327989.33

Row 22

(7.20.2.1) Facility

Galveston

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

404.44

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

405

Row 23

(7.20.2.1) Facility

Green Bay

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

0

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 24

(7.20.2.1) Facility

Grove

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

0

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 26

(7.20.2.1) Facility

Guara

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

0

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 27

(7.20.2.1) Facility

Henderson

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

1011.27

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

968.94

Row 28

(7.20.2.1) Facility

Hookers Point

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

653.11

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

685.21

Row 29

(7.20.2.1) Facility

Hookers Prairie

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

0

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 30

(7.20.2.1) Facility

Hopewell

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

0

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 32

(7.20.2.1) Facility

Lonesome

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

0

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 33

(7.20.2.1) Facility

Miski Mayo

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

18178.78

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

18178.78

Row 34

(7.20.2.1) Facility

Mulberry

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

0

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 35

(7.20.2.1) Facility

New Wales

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

29271.18

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

30709.86

Row 36

(7.20.2.1) Facility

Nichols

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

0

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 37

(7.20.2.1) Facility

Paranaguá

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

39.76

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

40.28

Row 38

(7.20.2.1) Facility

Paranaguá II

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

46.58

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

47.19

Row 39

(7.20.2.1) Facility

Patos de Minas

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

28.97

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

29.34

Row 40

(7.20.2.1) Facility

Patrocinio

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

212.92

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

215.69

Row 41

(7.20.2.1) Facility

Pekin

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

153.28

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

101.87

Row 43

(7.20.2.1) Facility

Pine Bend

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

700.35

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

386.36

Row 44

(7.20.2.1) Facility

Plant City

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

13502.91

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

14166.58

Row 45

(7.20.2.1) Facility

Port Sutton

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

801.01

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

840.38

Row 46

(7.20.2.1) Facility

Rio Grande II

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

15.82

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

16.02

Row 47

(7.20.2.1) Facility

Rio Verde

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

22.43

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

22.72

Row 48

(7.20.2.1) Facility

Riverview

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

41086.7

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

43106.11

Row 49

(7.20.2.1) Facility

Rondonópolis

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

42.74

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

43.29

Row 50

(7.20.2.1) Facility

Savage

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

0

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 51

(7.20.2.1) Facility

Sorriso

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

50.72

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

51.38

Row 52

(7.20.2.1) Facility

South Fort Meade

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

138095.66

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

138694.59

Row 53

(7.20.2.1) Facility

South Pasture

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

3627.28

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

3643.01

Row 54

(7.20.2.1) Facility

South Pierce

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

1441.26

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

1512.1

Row 55

(7.20.2.1) Facility

Taft

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

0

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 56

(7.20.2.1) Facility

Tampa Marine

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

184

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

193.05

Row 57

(7.20.2.1) Facility

Tapira

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

11078.87

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

11222.75

Row 58

(7.20.2.1) Facility

Taquari-Vassouras

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

5838.1

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

5913.92

Row 59

(7.20.2.1) Facility

Uberaba

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

0

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 60

(7.20.2.1) Facility

Uberaba II

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

35.67

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

36.13

Row 61

(7.20.2.1) Facility

Uberaba III

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

7454.9

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

7551.71

Row 62

(7.20.2.1) Facility

Uncle Sam

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

19416.5

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

19155.93

Row 63

(7.20.2.1) Facility

Villeta

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

0.12

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0.12

Row 64

(7.20.2.1) Facility

Wingate

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

59275.11

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

59532.19

Row 65

(7.20.2.1) Facility

Qinhaungdao

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

138.75

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

138.75

Row 66

(7.20.2.1) Facility

Yantai

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

155.96

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

155.96
[Add row]

(7.21) Break down your organization’s total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Chemicals production activities	*2347798.76*	*2417343.21*	*Excludes non-industrial buildings (e.g. offices) and non-production related activities (e.g. management, services, marketing, retail).*

[Fixed row]

(7.22) Break down your gross Scope 1 and Scope 2 emissions between your consolidated accounting group and other entities included in your response.

Consolidated accounting group

(7.22.1) Scope 1 emissions (metric tons CO2e)

3488313.79

(7.22.2) Scope 2, location-based emissions (metric tons CO2e)

1173899.38

(7.22.3) Scope 2, market-based emissions (metric tons CO2e)

1208681.35

(7.22.4) Please explain

These emissions refer to the group of entities we own and have operational control for which information is included within Mosaic's annual financial statements.

All other entities

(7.22.1) Scope 1 emissions (metric tons CO2e)

734439.02

(7.22.2) Scope 2, location-based emissions (metric tons CO2e)

35468.01

(7.22.3) Scope 2, market-based emissions (metric tons CO2e)

35468.01

(7.22.4) Please explain

These figures represent emissions associated with our 25% equity share investment in Ma'aden Wa'ad Al Shamal Phosphate Company in the Kingdom of Saudi Arabia and includes emissions associated with fuels, purchased electricity and phosphate rock consumption.
[Fixed row]

(7.23) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

Select from:
☑ Not relevant as we do not have any subsidiaries

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

Row 1

(7.25.1) Purchased feedstock

Select from:
☑ Ammonia

(7.25.2) Percentage of Scope 3, Category 1 tCO_2e from purchased feedstock

100

(7.25.3) Explain calculation methodology

100% of our reported Scope 3, category 1 emissions are from the purchase of ammonia, which we estimate to be our most material category 1 emissions source. This figure has been third-party assured by ERM CVS.
[Add row]

(7.25.1) Disclose sales of products that are greenhouse gases.

Carbon dioxide (CO_2)

(7.25.1.1) Sales, metric tons

0

(7.25.1.2) Comment

We do not sell this type of product.

Methane (CH_4)

(7.25.1.1) Sales, metric tons

0

(7.25.1.2) Comment

We do not sell this type of product.

Nitrous oxide (N2O)

(7.25.1.1) Sales, metric tons

0

(7.25.1.2) Comment

We do not sell this type of product.

Hydrofluorocarbons (HFC)

(7.25.1.1) Sales, metric tons

0

(7.25.1.2) Comment

We do not sell this type of product.

Perfluorocarbons (PFC)

(7.25.1.1) Sales, metric tons

0

(7.25.1.2) Comment

We do not sell this type of product.

Sulphur hexafluoride (SF6)

(7.25.1.1) Sales, metric tons

0

(7.25.1.2) Comment

We do not sell this type of product.

Nitrogen trifluoride (NF3)

(7.25.1.1) Sales, metric tons

0

(7.25.1.2) Comment

We do not sell this type of product.
[Fixed row]

(7.27) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Row 1

(7.27.1) Allocation challenges

Select from:
☑ Other, please specify :In North America we sell predominately to retailers, not end-user.

(7.27.2) Please explain what would help you overcome these challenges

A tracker or mapping of the end-user customers provided by the retailers we sell to would potentially help to understand the geography of the end-user, thus more accurate emissions related to product use.
[Add row]

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

	Do you plan to develop your capabilities to allocate emissions to your customers in the future?	Describe how you plan to develop your capabilities
	Select from: ☑ Yes	*Mosaic is evaluating this emission allocation space.*

[Fixed row]

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

Select from:

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

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

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

	Indicate whether your organization undertook this energy-related activity in the reporting year
	☑ No
Generation of electricity, heat, steam, or cooling	*Select from:* ☑ Yes

[Fixed row]

(7.30.1) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

Consumption of fuel (excluding feedstock)

(7.30.1.1) Heating value

Select from:
☑ LHV (lower heating value)

(7.30.1.2) MWh from renewable sources

340570.4

(7.30.1.3) MWh from non-renewable sources

10602830.22

(7.30.1.4) Total (renewable and non-renewable) MWh

10943400.62

Consumption of purchased or acquired electricity

(7.30.1.1) Heating value

Select from:

☑ Unable to confirm heating value

(7.30.1.2) MWh from renewable sources

113755.48

(7.30.1.3) MWh from non-renewable sources

3814799.65

(7.30.1.4) Total (renewable and non-renewable) MWh

3928555.12

Consumption of purchased or acquired heat

(7.30.1.1) Heating value

Select from:

☑ Unable to confirm heating value

(7.30.1.2) MWh from renewable sources

0

(7.30.1.3) MWh from non-renewable sources

173838.92

(7.30.1.4) Total (renewable and non-renewable) MWh

173838.92

Consumption of self-generated non-fuel renewable energy

(7.30.1.1) Heating value

Select from:

☑ Unable to confirm heating value

(7.30.1.2) MWh from renewable sources

0

(7.30.1.4) Total (renewable and non-renewable) MWh

0

Total energy consumption

(7.30.1.1) Heating value

Select from:

☑ Unable to confirm heating value

(7.30.1.2) MWh from renewable sources

454325.88

(7.30.1.3) MWh from non-renewable sources

14591468.78

(7.30.1.4) Total (renewable and non-renewable) MWh

15045794.66
[Fixed row]

(7.30.3) Report your organization's energy consumption totals (excluding feedstocks) for chemical production activities in MWh.

Consumption of fuel (excluding feedstocks)

(7.30.3.1) Heating value

Select from:
☑ LHV (lower heating value)

(7.30.3.2) MWh consumed from renewable sources inside chemical sector boundary

340570.4

(7.30.3.3) MWh consumed from non-renewable sources inside chemical sector boundary (excluding recovered waste heat/gases)

10602830.22

(7.30.3.4) MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary

1116641

(7.30.3.5) Total MWh (renewable + non-renewable + MWh from recovered waste heat/gases) consumed inside chemical sector boundary

12060041.62

Consumption of purchased or acquired electricity

(7.30.3.1) Heating value

Select from:

☑ Unable to confirm heating value

(7.30.3.2) MWh consumed from renewable sources inside chemical sector boundary

113755.48

(7.30.3.3) MWh consumed from non-renewable sources inside chemical sector boundary (excluding recovered waste heat/gases)

3814799.65

(7.30.3.4) MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary

0

(7.30.3.5) Total MWh (renewable + non-renewable + MWh from recovered waste heat/gases) consumed inside chemical sector boundary

3928555.12

Consumption of purchased or acquired heat

(7.30.3.1) Heating value

Select from:

☑ Unable to confirm heating value

(7.30.3.2) MWh consumed from renewable sources inside chemical sector boundary

0

(7.30.3.3) MWh consumed from non-renewable sources inside chemical sector boundary (excluding recovered waste heat/gases)

173838.92

(7.30.3.4) MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary

0

(7.30.3.5) Total MWh (renewable + non-renewable + MWh from recovered waste heat/gases) consumed inside chemical sector boundary

173838.92

Consumption of self-generated non-fuel renewable energy

(7.30.3.1) Heating value

Select from:
☑ Unable to confirm heating value

(7.30.3.2) MWh consumed from renewable sources inside chemical sector boundary

0

(7.30.3.5) Total MWh (renewable + non-renewable + MWh from recovered waste heat/gases) consumed inside chemical sector boundary

0

Total energy consumption

(7.30.3.1) Heating value

Select from:
☑ Unable to confirm heating value

(7.30.3.2) MWh consumed from renewable sources inside chemical sector boundary

454325.88

(7.30.3.3) MWh consumed from non-renewable sources inside chemical sector boundary (excluding recovered waste heat/gases)

14591468.78

(7.30.3.4) MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary

1116641

(7.30.3.5) Total MWh (renewable + non-renewable + MWh from recovered waste heat/gases) consumed inside chemical sector boundary

16162435.66
[Fixed row]

(7.30.6) Select the applications of your organization’s consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	*Select from:* ☑ Yes
Consumption of fuel for the generation of heat	*Select from:* ☑ Yes

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of steam	*Select from:* ☑ Yes
Consumption of fuel for the generation of cooling	*Select from:* ☑ No
Consumption of fuel for co-generation or tri-generation	*Select from:* ☑ Yes

[Fixed row]

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

Sustainable biomass

(7.30.7.1) Heating value

Select from:

☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

340394

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

We use sustainable biomass in our operations in Brazil.

Other biomass

(7.30.7.1) Heating value

Select from:
☑ Unable to confirm heating value

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

Not applicable.

Other renewable fuels (e.g. renewable hydrogen)

(7.30.7.1) Heating value

Select from:
☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

176

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

Includes bioethanol.

Coal

(7.30.7.1) Heating value

Select from:
☑ Unable to confirm heating value

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

Not applicable.

Oil

(7.30.7.1) Heating value

Select from:
☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

2146598

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

Includes diesel, gasoline and fuel oil.

Gas

(7.30.7.1) Heating value

Select from:
☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

8456233

(7.30.7.3) MWh fuel consumed for self-generation of electricity

3707346

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

Includes propane and natural gas. One of our Canadians facilities use natural gas for self-generation of electricity.

Other non-renewable fuels (e.g. non-renewable hydrogen)

(7.30.7.1) Heating value

Select from:

☑ Unable to confirm heating value

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

Not applicable.

Total fuel

(7.30.7.1) Heating value

Select from:
☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

10943401

(7.30.7.3) MWh fuel consumed for self-generation of electricity

3707346

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

Represents total fuel consumption.
[Fixed row]

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

Electricity

(7.30.9.1) Total Gross generation (MWh)

1410593

(7.30.9.2) Generation that is consumed by the organization (MWh)

1345597

(7.30.9.3) Gross generation from renewable sources (MWh)

0

(7.30.9.4) Generation from renewable sources that is consumed by the organization (MWh)

0

Heat

(7.30.9.1) Total Gross generation (MWh)

4865054

(7.30.9.2) Generation that is consumed by the organization (MWh)

4865054

(7.30.9.3) Gross generation from renewable sources (MWh)

0

(7.30.9.4) Generation from renewable sources that is consumed by the organization (MWh)

0

Steam

(7.30.9.1) Total Gross generation (MWh)

18537475

(7.30.9.2) Generation that is consumed by the organization (MWh)

18537475

(7.30.9.3) Gross generation from renewable sources (MWh)

0

(7.30.9.4) Generation from renewable sources that is consumed by the organization (MWh)

0

Cooling

(7.30.9.1) Total Gross generation (MWh)

0

(7.30.9.2) Generation that is consumed by the organization (MWh)

0

(7.30.9.3) Gross generation from renewable sources (MWh)

0

(7.30.9.4) Generation from renewable sources that is consumed by the organization (MWh)

0
[Fixed row]

(7.30.11) Provide details on electricity, heat, steam, and cooling your organization has generated and consumed for chemical production activities.

Electricity

(7.30.11.1) Total gross generation inside chemicals sector boundary (MWh)

1410593

(7.30.11.2) Generation that is consumed inside chemicals sector boundary (MWh)

1345597

(7.30.11.3) Generation from renewable sources inside chemical sector boundary (MWh)

0

(7.30.11.4) Generation from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary (MWh)

1116641

Heat

(7.30.11.1) Total gross generation inside chemicals sector boundary (MWh)

4865054

(7.30.11.2) Generation that is consumed inside chemicals sector boundary (MWh)

4865054

(7.30.11.3) Generation from renewable sources inside chemical sector boundary (MWh)

0

(7.30.11.4) Generation from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary (MWh)

0

Steam

(7.30.11.1) Total gross generation inside chemicals sector boundary (MWh)

18537475

(7.30.11.2) Generation that is consumed inside chemicals sector boundary (MWh)

18537475

(7.30.11.3) Generation from renewable sources inside chemical sector boundary (MWh)

0

(7.30.11.4) Generation from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary (MWh)

18537475

Cooling

(7.30.11.1) Total gross generation inside chemicals sector boundary (MWh)

0

(7.30.11.2) Generation that is consumed inside chemicals sector boundary (MWh)

0

(7.30.11.3) Generation from renewable sources inside chemical sector boundary (MWh)

0

(7.30.11.4) Generation from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary (MWh)

0
[Fixed row]

(7.30.14) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in 7.7.

Row 1

(7.30.14.1) Country/area

Select from:
☑ Canada

(7.30.14.2) Sourcing method

Select from:
☑ Physical power purchase agreement (physical PPA) with a grid-connected generator

(7.30.14.3) Energy carrier

Select from:
☑ Electricity

(7.30.14.4) Low-carbon technology type

Select from:
☑ Wind

(7.30.14.5) Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

73

(7.30.14.6) Tracking instrument used

Select from:
☑ Contract

(7.30.14.7) Country/area of origin (generation) of the low-carbon energy or energy attribute

Select from:
☑ Canada

(7.30.14.8) Are you able to report the commissioning or re-powering year of the energy generation facility?

Select from:
☑ Yes

(7.30.14.9) Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2012

(7.30.14.10) Comment

Mosaic's Colonsay facility has a green power purchase agreement with utility (SaskPower) to purchase low carbon electricity and it is accounted for here.

Row 2

(7.30.14.1) Country/area

Select from:
☑ Brazil

(7.30.14.2) Sourcing method

Select from:
☑ Physical power purchase agreement (physical PPA) with a grid-connected generator

(7.30.14.3) Energy carrier

Select from:
☑ Electricity

(7.30.14.4) Low-carbon technology type

Select from:
☑ Renewable energy mix, please specify **:**Wind, solar or hydropower.

(7.30.14.5) Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

15477

(7.30.14.6) Tracking instrument used

Select from:
☑ Contract

(7.30.14.7) Country/area of origin (generation) of the low-carbon energy or energy attribute

Select from:
☑ Brazil

(7.30.14.8) Are you able to report the commissioning or re-powering year of the energy generation facility?

Select from:
☑ Yes

(7.30.14.9) Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2020

(7.30.14.10) Comment

Our Distribution/Blending unit facilities in Brazil have a Green Power Purchasing agreement for renewable energy (wind, solar or hydropower).

Row 3

(7.30.14.1) Country/area

Select from:
☑ United States of America

(7.30.14.2) Sourcing method

Select from:
☑ Project-specific contract with an electricity supplier

(7.30.14.3) Energy carrier

Select from:
☑ Electricity

(7.30.14.4) Low-carbon technology type

Select from:
☑ Solar

(7.30.14.5) Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

98205

(7.30.14.6) Tracking instrument used

Select from:
☑ US-REC

(7.30.14.7) Country/area of origin (generation) of the low-carbon energy or energy attribute

Select from:
☑ United States of America

(7.30.14.8) Are you able to report the commissioning or re-powering year of the energy generation facility?

Select from:
☑ Yes

(7.30.14.9) Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2023

(7.30.14.10) Comment

One of our mining sites in Florida partnered with a local electricity supplier in 2023. In addition to supporting local development of solar energy, the subscription provides renewable energy certificates (RECs) equal to the amount of power its subscribers receive.
[Add row]

(7.30.16) Provide a breakdown by country/area of your electricity/heat/steam/cooling consumption in the reporting year.

Brazil

(7.30.16.1) Consumption of purchased electricity (MWh)

1030014.05

(7.30.16.2) Consumption of self-generated electricity (MWh)

231959.05

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

0

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

5113767.69

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

6375740.79

Canada

(7.30.16.1) Consumption of purchased electricity (MWh)

634918.34

(7.30.16.2) Consumption of self-generated electricity (MWh)

293951.73

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

173838.92

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

0

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

1102708.99

China

(7.30.16.1) Consumption of purchased electricity (MWh)

477.2

(7.30.16.2) Consumption of self-generated electricity (MWh)

0

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

0

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

0

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

477.20

Paraguay

(7.30.16.1) Consumption of purchased electricity (MWh)

1188.32

(7.30.16.2) Consumption of self-generated electricity (MWh)

0

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

0

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

0

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

1188.32

Peru

(7.30.16.1) Consumption of purchased electricity (MWh)

102242.88

(7.30.16.2) Consumption of self-generated electricity (MWh)

0

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

0

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

0

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

102242.88

United States of America

(7.30.16.1) Consumption of purchased electricity (MWh)

2046559.74

(7.30.16.2) Consumption of self-generated electricity (MWh)

819686.68

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

0

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

12307066.77

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

15173313.19
[Fixed row]

(7.31) Does your organization consume fuels as feedstocks for chemical production activities?

Select from:
☑ Yes

(7.31.1) Disclose details on your organization’s consumption of feedstocks for chemical production activities.

Row 1

(7.31.1.1) Fuels used as feedstocks

Select from:

☑ Other, please specify :Molten Sulfur

(7.31.1.2) Total consumption

4551025

(7.31.1.3) Total consumption unit

Select from:

☑ metric tons

(7.31.1.4) Inherent carbon dioxide emission factor of feedstock, metric tons CO2 per consumption unit

0

(7.31.1.5) Heating value of feedstock, MWh per consumption unit

0

(7.31.1.6) Heating value

Select from:

☑ LHV

(7.31.1.7) Comment

Emissions from feedstock take the form of SO2 which is consumed in the process to create an intermediary for our process. The heating value was calculated using energy generation per ton of intermediary production converted to per ton feedstock input.

Row 2

(7.31.1.1) Fuels used as feedstocks

Select from:

☑ Natural gas

(7.31.1.2) Total consumption

244415

(7.31.1.3) Total consumption unit

Select from:
☑ thousand cubic metres

(7.31.1.4) Inherent carbon dioxide emission factor of feedstock, metric tons CO2 per consumption unit

1.17

(7.31.1.5) Heating value of feedstock, MWh per consumption unit

10.7

(7.31.1.6) Heating value

Select from:
☑ LHV

(7.31.1.7) Comment

Calculated using 1 MMBtu equivalent to 27.3 m3 natural gas from U.S. Energy Information Administration. Density of natural gas estimated at 0.8kg/m3.
[Add row]

(7.31.2) State the percentage, by mass, of primary resource from which your chemical feedstocks derive.

Oil

(7.31.2.1) Percentage of total chemical feedstock (%)

0

(7.31.2.2) Direction of change in percentage of total chemical feedstock from previous year

Select from:

☑ No change

Natural Gas

(7.31.2.1) Percentage of total chemical feedstock (%)

5

(7.31.2.2) Direction of change in percentage of total chemical feedstock from previous year

Select from:

☑ Increased

Coal

(7.31.2.1) Percentage of total chemical feedstock (%)

0

(7.31.2.2) Direction of change in percentage of total chemical feedstock from previous year

Select from:

☑ No change

Biomass

(7.31.2.1) Percentage of total chemical feedstock (%)

0

(7.31.2.2) Direction of change in percentage of total chemical feedstock from previous year

Select from:
☑ No change

Waste (non-biomass)

(7.31.2.1) Percentage of total chemical feedstock (%)

0

(7.31.2.2) Direction of change in percentage of total chemical feedstock from previous year

Select from:
☑ No change

Fossil fuel (where coal, gas, oil cannot be distinguished)

(7.31.2.1) Percentage of total chemical feedstock (%)

96

(7.31.2.2) Direction of change in percentage of total chemical feedstock from previous year

Select from:
☑ Decreased

Unknown source or unable to disaggregate

(7.31.2.1) Percentage of total chemical feedstock (%)

0

(7.31.2.2) Direction of change in percentage of total chemical feedstock from previous year

Select from:
☑ No change

[Fixed row]

(7.39) Provide details on your organization's chemical products.

Row 1

(7.39.1) Output product

Select from:
☑ Ammonia

(7.39.2) Production (metric tons)

369051

(7.39.3) Capacity (metric tons)

470000

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

0

(7.39.5) Electricity intensity (MWh per metric ton of product)

0

(7.39.6) Steam intensity (MWh per metric ton of product)

0

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

0

(7.39.8) Comment

As ammonia is an input used in our finished crop nutrient products, we have not calculated the emissions intensity associated with this chemical specifically.

Row 2

(7.39.1) Output product

Select from:
☑ Other, please specify :Sulfuric Acid

(7.39.2) Production (metric tons)

12353741

(7.39.3) Capacity (metric tons)

15500000

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

0

(7.39.5) Electricity intensity (MWh per metric ton of product)

0

(7.39.6) Steam intensity (MWh per metric ton of product)

0

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

0

(7.39.8) Comment

As sulfuric acid is an intermediate input used in our finished crop nutrient products, we have not calculated the emissions intensity associated with this chemical specifically. Rather, it is included in the facility, business unit and company-wide emissions figures.

Row 3

(7.39.1) Output product

Select from:
☑ Other, please specify :Phosphoric Acid

(7.39.2) Production (metric tons)

3950875

(7.39.3) Capacity (metric tons)

5600000

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

0

(7.39.5) Electricity intensity (MWh per metric ton of product)

0

(7.39.6) Steam intensity (MWh per metric ton of product)

0

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

0

(7.39.8) Comment

As phosphoric acid is an intermediate input used in our finished crop nutrient products, we have not calculated the emissions intensity associated with this chemical specifically. Rather, it is included in the facility, business unit and company-wide emissions figures.

Row 4

(7.39.1) Output product

Select from:

☑ Other, please specify :Potash

(7.39.2) Production (metric tons)

8224032

(7.39.3) Capacity (metric tons)

13700000

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

0.109

(7.39.5) Electricity intensity (MWh per metric ton of product)

0.089

(7.39.6) Steam intensity (MWh per metric ton of product)

0

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

0

(7.39.8) Comment

Direct emissions intensity represents the Scope 1 emissions per unit production of operations related to potash crop nutrients. Also, electricity intensity represents the purchased electrical power consumed within the facility per unit production of operations related to potash crop nutrients.

Row 5

(7.39.1) Output product

Select from:

☑ Other, please specify :Phosphate Crop Nutrient and Animal Feed

(7.39.2) Production (metric tons)

10511619

(7.39.3) Capacity (metric tons)

13900000

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

0.245

(7.39.5) Electricity intensity (MWh per metric ton of product)

0.2916

(7.39.6) Steam intensity (MWh per metric ton of product)

1.4102

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

1.5006

(7.39.8) Comment

Direct emissions intensity represents the Scope 1 emissions per unit production of operations related to phosphate crop and animal feed products. Also, electricity intensity represents the purchased electrical power consumed within the facility per unit production of operations related to phosphate crop and animal feed products.
[Add row]

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

Row 1

(7.45.1) Intensity figure

0.000340331

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

4661210.17

(7.45.3) Metric denominator

Select from:
☑ unit total revenue

(7.45.4) Metric denominator: Unit total

13696100000

(7.45.5) Scope 2 figure used

Select from:
☑ Location-based

(7.45.6) % change from previous year

48

(7.45.7) Direction of change

Select from:

☑ Increased

(7.45.8) Reasons for change

Select all that apply

☑ Change in revenue

(7.45.9) Please explain

The increase in intensity was mainly driven by a decrease in revenue. Our year-over-year absolute emissions increased by approximately 6% due to production shortfalls, weather and operational challenges; revenue decreased by approximately 28%.

Row 2

(7.45.1) Intensity figure

331.9

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

4661210.17

(7.45.3) Metric denominator

Select from:

☑ full time equivalent (FTE) employee

(7.45.4) Metric denominator: Unit total

14044

(7.45.5) Scope 2 figure used

Select from:
☑ Location-based

(7.45.6) % change from previous year

3

(7.45.7) Direction of change

Select from:
☑ Increased

(7.45.8) Reasons for change

Select all that apply
☑ Other, please specify **:**Emissions increase

(7.45.9) Please explain

Absolute CO2e increased by approximately 6% year-over-year due to production shortfalls, weather and operational challenges while employee count increased by only 3%, resulting in greater emissions per full time equivalent employee.
[Add row]

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

Row 1

(7.52.1) Description

Select from:
☑ Energy usage

(7.52.2) Metric value

2.64

(7.52.3) Metric numerator

Total Energy Consumption

(7.52.4) Metric denominator (intensity metric only)

Metric tonnes finished product

(7.52.5) % change from previous year

6

(7.52.6) Direction of change

Select from:
☑ Decreased

(7.52.7) Please explain

The decrease in energy intensity was mainly driven by a decrease in energy consumption due to lower production and energy-savings initiatives. Total energy consumption was assured by ERM CVS.

Row 2

(7.52.1) Description

Select from:
☑ Energy usage

(7.52.2) Metric value

3890433.12

(7.52.3) Metric numerator

Indirect Energy(MWh)

(7.52.4) Metric denominator (intensity metric only)

1

(7.52.5) % change from previous year

1

(7.52.6) Direction of change

Select from:
☑ Increased

(7.52.7) Please explain

Increase in indirect energy was a result of a decrease in cogenerated power which resulted in the need to source more energy from outside sources (e.g., purchased electricity). Indirect energy consumption was assured by ERM CVS.

Row 3

(7.52.1) Description

Select from:
☑ Energy usage

(7.52.2) Metric value

32256263.37

(7.52.3) Metric numerator

Total Energy (Direct & Indirect Energy[MWh])

(7.52.4) Metric denominator (intensity metric only)

1

(7.52.5) % change from previous year

3

(7.52.6) Direction of change

Select from:

☑ Decreased

(7.52.7) Please explain

Decrease in direct energy was a result of a decrease in production and energy-saving initiatives. Total energy consumption was assured by ERM CVS.

Row 4

(7.52.1) Description

Select from:

☑ Other, please specify :Cogenerated power

(7.52.2) Metric value

1410593.74

(7.52.3) Metric numerator

Power produced in MWh

(7.52.4) Metric denominator (intensity metric only)

1

(7.52.5) % change from previous year

2

(7.52.6) Direction of change

Select from:

☑ Decreased

(7.52.7) Please explain

Cogenerated power decreased as a result of a decrease in sulfuric acid production. Cogenerated power is generated by harnessing waste heat from the sulfuric acid manufacturing process. Emissions associated with original source of the heat, sulfuric acid production, are accounted for in scope 1 emissions. As there are no incremental emissions associated with the production of power from this process, we are including it as a low-carbon source.

Row 5

(7.52.1) Description

Select from:

☑ Energy usage

(7.52.2) Metric value

28365830.26

(7.52.3) Metric numerator

Direct Energy (MWh)

(7.52.4) Metric denominator (intensity metric only)

1

(7.52.5) % change from previous year

3

(7.52.6) Direction of change

Select from:
☑ Decreased

(7.52.7) Please explain

Decrease in direct energy was a result of a decrease in production and energy-saving initiatives.
[Add row]

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

Select all that apply
☑ Intensity target

(7.53.2) Provide details of your emissions intensity targets and progress made against those targets.

Row 1

(7.53.2.1) Target reference number

Select from:
☑ Int 1

(7.53.2.2) Is this a science-based target?

Select from:
☑ No, but we anticipate setting one in the next two years

(7.53.2.5) Date target was set

12/31/2020

(7.53.2.6) Target coverage

Select from:
☑ Organization-wide

(7.53.2.7) Greenhouse gases covered by target

Select all that apply
☑ Carbon dioxide (CO_2)
☑ Methane (CH_4)
☑ Nitrous oxide (N_2O)

(7.53.2.8) Scopes

Select all that apply
☑ Scope 1
☑ Scope 2

(7.53.2.9) Scope 2 accounting method

Select from:
☑ Location-based

(7.53.2.11) Intensity metric

Select from:
☑ Metric tons CO_2e per metric ton of product

(7.53.2.12) End date of base year

12/31/2015

(7.53.2.13) Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)

0.17924

(7.53.2.14) Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)

0.07639

(7.53.2.33) Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

0.2556300000

(7.53.2.34) % of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

100

(7.53.2.35) % of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

100

(7.53.2.54) % of total base year emissions in all selected Scopes covered by this intensity figure

100

(7.53.2.55) End date of target

12/31/2025

(7.53.2.56) Targeted reduction from base year (%)

20

(7.53.2.57) Intensity figure at end date of target for all selected Scopes (metric tons CO2e per unit of activity)

0.2045040000

(7.53.2.58) % change anticipated in absolute Scope 1+2 emissions

3

(7.53.2.60) Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)

0.18879

(7.53.2.61) Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)

0.06005

(7.53.2.80) Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

0.2488400000

(7.53.2.81) Land-related emissions covered by target

Select from:

☑ No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

(7.53.2.82) % of target achieved relative to base year

13.28

(7.53.2.83) Target status in reporting year

Select from:

☑ Underway

(7.53.2.85) Explain target coverage and identify any exclusions

In 2020, we announced a target to reduce our combined Scope 1 and Scope 2 GHG emissions by 20% per tonne of finished product by 2025. Current GHG reduction targets are based on internal operational performance and cover Scope 1 and 2 emissions from operations in North and South America, including facilities acquired in our Brazil business in 2018. Our GHG target, although not recognized by the Science Based Targets Initiative for being in line with their particular methodology, was developed with science-based models that take company and industry-specific factors into account. Our GHG target does not include Scope 3 emissions at this time. However, we are engaging our supply chain to reduce the most relevant Scope 3 emissions. We report those emissions categories in this questionnaire. For our GHG target, we selected a 2015 baseline year for our North America business because it represented a fairly "typical" year for Mosaic, whereas the years that followed brought cyclical market conditions and operational decisions that are not representative of our business. We selected a 2018 baseline year for our Brazil business due to the "first-hand" availability of data following our 2018 acquisition of mining and production sites in Brazil. The Scope 1 and 2 percentage covered in our targets (100%) represents total inclusion of all our operating mining and manufacturing sites in the baseline year (note, this percentage is restated from 2021 disclosure where there was a subtraction made for closed or idle sites which is not considered relevant for CDP reporting analysis).

(7.53.2.86) Target objective

Reduce 20% of Mosaic's companywide GHG emissions by 2025. This target is part of our strategy to reach net-zero GHG emissions companywide by 2040.

(7.53.2.87) Plan for achieving target, and progress made to the end of the reporting year

We have a plan that focuses foremost on mitigation of the emissions from our operations, and we will also rely on nature-based solutions. We will reduce emissions from our sites –deploying process optimizations, operating more efficiently, using renewable energy, making investments in electrification and equipment. We are uniquely positioned with our significant landholdings to maximize carbon removal through nature-based solutions, including land covered with vegetation that sequesters carbon. We are on track to achieve a 20% intensity target by 2025. Our plan is to achieve net-zero emissions companywide by 2040, with achieving Florida milestone emission total by 2030 (considered two separate targets previously).

(7.53.2.88) Target derived using a sectoral decarbonization approach

Select from:

☑ Yes

[Add row]

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

Select all that apply

☑ Net-zero targets

(7.54.3) Provide details of your net-zero target(s).

Row 1

(7.54.3.1) Target reference number

Select from:

☑ NZ1

(7.54.3.2) Date target was set

12/31/2021

(7.54.3.3) Target Coverage

Select from:

☑ Organization-wide

(7.54.3.4) Targets linked to this net zero target

Select all that apply

☑ Int1

(7.54.3.5) End date of target for achieving net zero

12/31/2040

(7.54.3.6) Is this a science-based target?

Select from:

☑ No, but we anticipate setting one in the next two years

(7.54.3.8) Scopes

Select all that apply

☑ Scope 1

☑ Scope 2

(7.54.3.9) Greenhouse gases covered by target

Select all that apply

☑ Carbon dioxide (CO2)

☑ Methane (CH4)

☑ Nitrous oxide (N2O)

(7.54.3.10) Explain target coverage and identify any exclusions

Our net-zero target includes our companywide Scope 1 and Scope 2 emissions.

(7.54.3.11) Target objective

Achieve net-zero GHG emissions companywide by 2040, with achieving a Florida milestone emission total by 2030.

(7.54.3.12) Do you intend to neutralize any residual emissions with permanent carbon removals at the end of the target?

Select from:

☑ Yes

(7.54.3.13) Do you plan to mitigate emissions beyond your value chain?

Select from:

☑ No, and we do not plan to within the next two years

(7.54.3.14) Do you intend to purchase and cancel carbon credits for neutralization and/or beyond value chain mitigation?

Select all that apply

☑ No, we do not plan to purchase and cancel carbon credits for neutralization and/or beyond value chain mitigation

(7.54.3.15) Planned milestones and/or near-term investments for neutralization at the end of the target

We have a plan that focuses foremost on mitigation of the emissions from our operations, and we will also rely on nature-based solutions. We will reduce emissions from our sites –deploying process optimizations, operating more efficiently, using renewable energy, making investments in electrification and equipment. We are uniquely positioned with our significant landholdings to maximize carbon removal through nature-based solutions, including land covered with vegetation that sequesters carbon. In 2023, progress toward our 2040 companywide Net Zero Target included: exploration of Carbon Capture, Utilization and Storage (CCUS) at our Belle Plaine site; exploration of CCUS at our Faustina site; exploration of CCUS at key Brazilian sites; development of methodology for opportunity evaluation for decarbonization projects; decarbonization-focused workshops at key global sites; compilation of projects into a master project portfolio database.

(7.54.3.17) Target status in reporting year

Select from:

☑ Underway

(7.54.3.19) Process for reviewing target

Mosaic has a global footprint and opportunities for carbon abatement are heterogeneous across countries and our portfolio of activities. The 2030 target amount considers projects across global operations to achieve CO2e reduction equivalent to the sum of Mosaic's Florida Operations emissions. By using a 2030 milestone target, Mosaic is motivated to make short-term and long-term progress toward decarbonization. Next steps include project prioritization (based on economics, technology readiness, regulatory environments and other risk factors) and potential for expansion of decarbonization assessments to other lesser greenhouse gas emitting sites. Based on the project prioritization exercise, we are compiling a more detailed road map to get to net zero. We will provide more detail on the indicative road map in our 2024 Sustainability reporting cycle (reported in 2025). This will be combined with commentary on our refresh of the current crop of "short-term" ESG targets, which sunset in 2025.
[Add row]

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

Select from:
☑ Yes

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

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	*4*	*`Numeric input*
To be implemented	*13*	*163118*
Implementation commenced	*1*	*3650*
Implemented	*13*	*25406*
Not to be implemented	*0*	*`Numeric input*

[Fixed row]

(7.55.2) Provide details on the initiatives implemented in the reporting year in the table below.

Row 1

(7.55.2.1) Initiative category & Initiative type

Energy efficiency in buildings

☑ Lighting

(7.55.2.2) Estimated annual CO2e savings (metric tonnes CO2e)

16483

(7.55.2.3) Scope(s) or Scope 3 category(ies) where emissions savings occur

Select all that apply

☑ Scope 2 (location-based)

(7.55.2.4) Voluntary/Mandatory

Select from:

☑ Voluntary

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

1297000

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

920000

(7.55.2.7) Payback period

Select from:

☑ <1 year

(7.55.2.8) Estimated lifetime of the initiative

Select from:

☑ 6-10 years

(7.55.2.9) Comment

Companywide, we upgraded lighting to more efficient LEDs, which reduces purchased electricity and GHG emissions.

Row 2

(7.55.2.1) Initiative category & Initiative type

Energy efficiency in production processes

☑ Machine/equipment replacement

(7.55.2.2) Estimated annual CO2e savings (metric tonnes CO2e)

5401

(7.55.2.3) Scope(s) or Scope 3 category(ies) where emissions savings occur

Select all that apply

☑ Scope 1

☑ Scope 2 (location-based)

(7.55.2.4) Voluntary/Mandatory

Select from:

☑ Voluntary

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

2700000

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

2150000

(7.55.2.7) Payback period

Select from:
☑ 1-3 years

(7.55.2.8) Estimated lifetime of the initiative

Select from:
☑ 6-10 years

(7.55.2.9) Comment

Multiple initiatives at our operations in Brazil, Canada and US that reduce emissions by replacing machinery and/or equipment. Annual monetary savings, investment, payback and estimated lifetime is an average of the initiatives.

Row 3

(7.55.2.1) Initiative category & Initiative type

Energy efficiency in production processes
☑ Reuse of water

(7.55.2.2) Estimated annual CO2e savings (metric tonnes CO2e)

3500

(7.55.2.3) Scope(s) or Scope 3 category(ies) where emissions savings occur

Select all that apply
☑ Scope 1

(7.55.2.4) Voluntary/Mandatory

Select from:
☑ Voluntary

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

500000

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

500000

(7.55.2.7) Payback period

Select from:
☑ 1-3 years

(7.55.2.8) Estimated lifetime of the initiative

Select from:
☑ 11-15 years

(7.55.2.9) Comment

This project was implemented in our Brazil operations and aims the reuse of process water (acidic water) that was previously discharged after limestone treatment. The reuse of acidic water reduces the amount of limestone used for neutralization of the effluent, which has the benefit of also reducing CO2 emissions from limestone.
[Add row]

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

Row 1

(7.55.3.1) Method

Select from:

☑ Compliance with regulatory requirements/standards

(7.55.3.2) Comment

New or proposed regulatory emissions requirements may require modifications to our facilities or to operating procedures and these modifications may involve significant investments. We analyze the cost of complying with regulatory compliance against the cost of intervening with solutions that will reduce GHG emissions.

Row 2

(7.55.3.1) Method

Select from:

☑ Other :Site responsibility for sustainability initiatives

(7.55.3.2) Comment

Mosaic facilities have employees that are designated engineers and/or sustainability site leads. The role of these site leads, in part, is to identify project opportunities (some of which require investments) for improving energy efficiency and GHG emissions that will help us achieve our 2025 target to reduce GHG emissions by 20% per tonne of product.

Row 3

(7.55.3.1) Method

Select from:

☑ Employee engagement

(7.55.3.2) Comment

Mosaic emphasizes the philosophy of continuous improvements to reduce energy use in our manufacturing facilities and support functions, and we recognize that employees on the front line often have the best ideas. Mosaic fosters a culture which encourages employees to bring forward ideas, and this open dialogue has driven investments that result in energy savings and/or emissions reductions. In 2023, we continued an internal communications effort to recognize employees for their efforts, large and small, in improving environmental performance and meeting companywide 2025 ESG Performance Targets.

[Add row]

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

Select from:

☑ No, I am not providing data

(7.74) Do you classify any of your existing goods and/or services as low-carbon products?

Select from:

☑ Yes

(7.74.1) Provide details of your products and/or services that you classify as low-carbon products.

Row 1

(7.74.1.1) Level of aggregation

Select from:

☑ Product or service

(7.74.1.2) Taxonomy used to classify product(s) or service(s) as low-carbon

Select from:

☑ No taxonomy used to classify product(s) or service(s) as low carbon

(7.74.1.3) Type of product(s) or service(s)

Other

☑ Other, please specify :Fertilizer

(7.74.1.4) Description of product(s) or service(s)

Mosaic's performance product MicroEssentials has been shown to increase corn yields an average of 7.2 bushels per acre, or 4.3%, compared to traditional fertilizer. MicroEssentials has also been labeled an Enhanced Efficiency Fertilizer (EEF), which means it reduces nutrient losses to the environment while increasing nutrient availability for the plant or crop. This product helps enable farmers to avoid GHG emissions.

(7.74.1.5) Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Select from:
☑ Yes

(7.74.1.6) Methodology used to calculate avoided emissions

Select from:
☑ Other, please specify **:**Product-specific methodology.

(7.74.1.7) Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Select from:
☑ Use stage

(7.74.1.8) Functional unit used

MicroEssentials

(7.74.1.9) Reference product/service or baseline scenario used

Diammonium Phosphate (traditional fertilizer products).

(7.74.1.10) Life cycle stage(s) covered for the reference product/service or baseline scenario

Select from:
☑ Use stage

(7.74.1.11) Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

0.1816

(7.74.1.12) Explain your calculation of avoided emissions, including any assumptions

Mosaic's performance product MicroEssentials has been shown to increase corn yields an average of 7.2 bushels per acre, or 4.3%, compared to traditional fertilizer. Assuming a 4.3% yield advantage with MicroEssentials, a corn farmer with a 350-acre farm can theoretically produce yields similar to those from a 365.05-acre farm. By using MicroEssentials, this farmer could avoid approximately 0.1816 tonnes of Scope 1 CO2e/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. 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 365.05 acres worth of crops was used as the baseline for this Scope 1 emissions savings. A 2.5 mph corn harvester (farm equipment) uses 1.15 gallons/acre of diesel fuel, which equates to 0.0120648 tonnesCO2e/gallon of diesel fuel. Assuming a 4.3% yield advantage with MicroEssentials, a corn farmer with a 350-acre farm can theoretically produce yields similar to those from a 365.05-acre farm. This farmer could avoid approximately 0.1816 tonnes of Scope 1 emissions/year by harvesting the same yield on a smaller area. For every 100 farms similar to this example equals a combined savings of 18.16 tonnes of Scope 1 CO2e/year. There are 900 million acres of farmland in the United States and we are using 20,000 tonnes of CO2e as a conservative and theoretical estimate. The percentage of total sales is for revenue from performance products (a category that includes MicroEssentials) as a share of total revenue from all product types. Sales for MicroEssentials are not available as a separate line item. Performance products revenue, which includes MicroEssentials sales, represented 18% of total revenue in 2023. Methodology base: US EPA Climate Leaders and GHG Protocol.

(7.74.1.13) Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

18
[Add row]

(7.79) Has your organization canceled any project-based carbon credits within the reporting year?

Select from:
☑ No

C9. Environmental performance - Water security

(9.1) Are there any exclusions from your disclosure of water-related data?

Select from:

☑ No

(9.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?

Water withdrawals – total volumes

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Daily

(9.2.3) Method of measurement

This is monitored at our facilities through various means including online electronic metering and totalizer readings.

(9.2.4) Please explain

All water withdrawals are monitored daily, weekly, monthly or annually by EHS or operations personnel at 100% of applicable sites due to regulatory permitting standards.

Water withdrawals – volumes by source

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Daily

(9.2.3) Method of measurement

This is monitored at our facilities through various means including online electronic metering and totalizer readings.

(9.2.4) Please explain

All water withdrawals are monitored daily, weekly, monthly or annually by EHS or operations personnel at 100% of applicable sites due to regulatory permitting standards.

Water withdrawals quality

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Daily

(9.2.3) Method of measurement

This is monitored at our facilities through various means including field sampling.

(9.2.4) Please explain

All water withdrawals qualities are measured by EHS on daily, weekly, monthly, quarterly or annually by EHS or operations personnel at 100% of applicable sites due to regulatory permitting standards.

Water discharges – total volumes

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Daily

(9.2.3) Method of measurement

This is monitored at our facilities through various means including online electronic metering and totalizer readings.

(9.2.4) Please explain

All water discharges are monitored daily, weekly, monthly or annually by EHS or operations personnel at 100% of applicable sites due to regulatory permitting standards.

Water discharges – volumes by destination

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Daily

(9.2.3) Method of measurement

This is monitored at our facilities through various means including online electronic metering and totalizer readings.

(9.2.4) Please explain

All water discharges are monitored daily, weekly, monthly or annually by EHS or operations personnel at 100% of applicable sites due to regulatory permitting standards.

Water discharges – volumes by treatment method

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Monthly

(9.2.3) Method of measurement

This is monitored at our facilities through various means including online electronic metering, totalizer readings and hand sample testing.

(9.2.4) Please explain

All water discharges are monitored daily, weekly, monthly or annually by EHS or operations personnel at 100% of applicable sites due to regulatory permitting standards.

Water discharge quality – by standard effluent parameters

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Monthly

(9.2.3) Method of measurement

This is monitored at our facilities through various means including online electronic metering, totalizer readings and hand sample testing.

(9.2.4) Please explain

All water discharges are monitored daily, weekly, monthly or annually by EHS or operations personnel at 100% of applicable sites due to regulatory permitting standards.

Water discharge quality – emissions to water (nitrates, phosphates, pesticides, and/or other priority substances)

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Monthly

(9.2.3) Method of measurement

This is monitored at our facilities through various means including online electronic metering, totalizer readings and hand sample testing.

(9.2.4) Please explain

All water discharges are monitored daily, weekly, monthly or annually by EHS or operations personnel at 100% of applicable sites due to regulatory permitting standards.

Water discharge quality – temperature

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Monthly

(9.2.3) Method of measurement

This is monitored at our facilities through various means including online electronic metering, totalizer readings and hand sample testing.

(9.2.4) Please explain

All water discharges are monitored daily, weekly, monthly or annually by EHS or operations personnel at 100% of applicable sites due to regulatory permitting standards.

Water consumption – total volume

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Daily

(9.2.3) Method of measurement

This is monitored at our facilities through various means including online electronic metering, totalizer readings and hand sample testing.

(9.2.4) Please explain

All water withdrawals and discharges (thereby consumption) are monitored daily, weekly, monthly or annually by EHS or operations personnel at 100% of applicable sites due to regulatory permitting standards.

Water recycled/reused

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Daily

(9.2.3) Method of measurement

This is monitored at our facilities through various means including online electronic metering, totalizer readings and hand sample testing.

(9.2.4) Please explain

Recycled/reused water is monitored daily at facilities accepting it from an external source. Internal recycle/reuse is monitored regularly for quality, with certain parameters being measured as frequently as multiple times per shift (namely clarity) or biweekly (pH, phosphorous and turbidity). Monitoring of recycled and reused water is based on best operating practices.

The provision of fully-functioning, safely managed WASH services to all workers

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Daily

(9.2.3) Method of measurement

All facilities are supplied with potable water, which is monitored by meters and invoices, and volumes are reported for WASH purposes and all sources are accounted for in our CDP response and annual sustainability disclosure.

(9.2.4) Please explain

EHS and maintenance personnel monitor for WASH services on an ongoing basis (as often as daily) in 100% of our facilities in line with regulatory requirements in our operating jurisdictions. Beyond compliance, Mosaic is committed to the United Nations Global Compact and its ten universal principles. All of our more than 14,000 employees have access to fully functioning WASH services.
[Fixed row]

(9.2.2) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, how do they compare to the previous reporting year, and how are they forecasted to change?

Total withdrawals

(9.2.2.1) Volume (megaliters/year)

298701.56

(9.2.2.2) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.2.3) Primary reason for comparison with previous reporting year

Select from:
☑ Other, please specify :No significant changes

(9.2.2.4) Five-year forecast

Select from:
☑ Lower

(9.2.2.5) Primary reason for forecast

Select from:
☑ Increase/decrease in efficiency

(9.2.2.6) Please explain

No substantial change in year-over-year withdrawals (-6%). Forecast is based on our sustainability Targets. Total water withdrawals were assured by ERM CVS.

Total discharges

(9.2.2.1) Volume (megaliters/year)

558257.21

(9.2.2.2) Comparison with previous reporting year

Select from:
☑ Higher

(9.2.2.3) Primary reason for comparison with previous reporting year

Select from:
☑ Other, please specify :Weather

(9.2.2.4) Five-year forecast

Select from:

☑ Lower

(9.2.2.5) Primary reason for forecast

Select from:

☑ Increase/decrease in efficiency

(9.2.2.6) Please explain

Discharges at some facilities are greater than withdrawals due to precipitation that is managed and discharged in accordance with local regulations. In 2023, increased precipitation in the region where one of our Brazil operations is located resulted in greater volumes discharged.

Total consumption

(9.2.2.1) Volume (megaliters/year)

73120.96

(9.2.2.2) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.2.3) Primary reason for comparison with previous reporting year

Select from:

☑ Other, please specify **:**No significant changes.

(9.2.2.4) Five-year forecast

Select from:

☑ Lower

(9.2.2.5) Primary reason for forecast

Select from:

☑ Increase/decrease in efficiency

(9.2.2.6) Please explain

This value represents the sum of all positive consumption values using CDP methodology. Discharges plus consumption does not equal withdrawals because discharges at some facilities are greater than withdrawals due to precipitation that is managed and discharged in accordance with local regulations. We do not expect our consumption to change significantly in the future, barring any significant changes in operating requirements or precipitation. The figure was higher, year-over-year, due to higher withdrawals. Forecast is based on our sustainability Targets.
[Fixed row]

(9.2.4) Indicate whether water is withdrawn from areas with water stress, provide the volume, how it compares with the previous reporting year, and how it is forecasted to change.

(9.2.4.1) Withdrawals are from areas with water stress

Select from:

☑ Yes

(9.2.4.2) Volume withdrawn from areas with water stress (megaliters)

25150.83

(9.2.4.3) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.4.4) Primary reason for comparison with previous reporting year

Select from:

☑ Other, please specify **:**No significant changes.

(9.2.4.5) Five-year forecast

Select from:

☑ Lower

(9.2.4.6) Primary reason for forecast

Select from:

☑ Increase/decrease in efficiency

(9.2.4.7) % of total withdrawals that are withdrawn from areas with water stress

8.42

(9.2.4.8) Identification tool

Select all that apply

☑ WRI Aqueduct

(9.2.4.9) Please explain

Our Miski Mayo facility in Peru is located in a basin considered to be in high or extremely high-water stress according to the World Resources Institute (WRI) Aqueduct Water Risk Atlas tool. However, this facility operates almost exclusively on seawater, which undergoes a process of desalination before it is used. Actual groundwater withdrawals from this facility represent less than 1% of Mosaic's total groundwater withdrawals. Likewise, according to the same tool, our Colonsay facility in Saskatchewan operates in an extremely high-stress basin. This site does not withdraw groundwater, but instead relies on surface water reservoirs. In 2023, the Carlsbad facility was also listed as located in a basin considered to be extremely high-water stress. This facility is located in New Mexico and its groundwater withdrawals represent approximately 2% of our global water withdrawals. We applied the WRI Aqueduct tool by plotting the latitude and longitude of over 50 Mosaic facilities, regardless of the volume of water withdrawals at the site, to determine the level of water stress for each site. We assess physical risk quantity and quality outputs, as well as regulatory and reputational risk scores. There were no significant exclusions. Forecast is based on our sustainability Targets.
[Fixed row]

(9.2.7) Provide total water withdrawal data by source.

Fresh surface water, including rainwater, water from wetlands, rivers, and lakes

(9.2.7.1) Relevance

Select from:

☑ Relevant

(9.2.7.2) Volume (megaliters/year)

207228.21

(9.2.7.3) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☑ Other, please specify **:**No significant changes.

(9.2.7.5) Please explain

Fresh surface water is relevant due to its use in our Canada, Brazil and Louisiana operations that use it as their primary source of water.

Brackish surface water/Seawater

(9.2.7.1) Relevance

Select from:

☑ Relevant

(9.2.7.2) Volume (megaliters/year)

18996.66

(9.2.7.3) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☑ Other, please specify **:**No significant changes.

(9.2.7.5) Please explain

Seawater is relevant because we rely on it at our phosphate mining operations in Peru. This is Mosaic's fifth year reporting seawater due to acquiring a majority ownership in 2018 of a joint venture operated in Peru. We do not anticipate an increase in our reliance on seawater sources for current operations.

Groundwater – renewable

(9.2.7.1) Relevance

Select from:

☑ Relevant

(9.2.7.2) Volume (megaliters/year)

64381.81

(9.2.7.3) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☑ Other, please specify **:**No significant changes.

(9.2.7.5) Please explain

Groundwater-renewable is a relevant water source due to its use as the primary water source for Florida operations as well as use in some of our Canada and Brazil facilities. We anticipate our reliance on freshwater for current operations to decrease in the future due to business- and geographic- specific water strategies focused in part on water use reduction.

Groundwater – non-renewable

(9.2.7.1) Relevance

Select from:

☑ Not relevant

(9.2.7.5) Please explain

Mosaic does not withdraw water from groundwater-non-renewable for its operations, and we do not anticipate using any in the future. This category is not relevant to us at this time.

Produced/Entrained water

(9.2.7.1) Relevance

Select from:

☑ Not relevant

(9.2.7.5) Please explain

Mosaic does not receive produced water from a source as a result of direct production activities and does not plan to in the future.

Third party sources

(9.2.7.1) Relevance

Select from:

☑ Relevant

(9.2.7.2) Volume (megaliters/year)

8094.88

(9.2.7.3) Comparison with previous reporting year

Select from:

☑ Lower

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in efficiency

(9.2.7.5) Please explain

Water from third-party sources is relevant because some of our sites use it to offset reliance on freshwater sources. We do not anticipate third party water sources to vary year-over-year in normal operating conditions; however, we are exploring opportunities for increasing our use of wastewater as part of a strategy to reduce freshwater use.
[Fixed row]

(9.2.8) Provide total water discharge data by destination.

Fresh surface water

(9.2.8.1) Relevance

Select from:

☑ Relevant

(9.2.8.2) Volume (megaliters/year)

551948.02

(9.2.8.3) Comparison with previous reporting year

Select from:

☑ Higher

(9.2.8.4) Primary reason for comparison with previous reporting year

Select from:

☑ Other, please specify :Weather

(9.2.8.5) Please explain

Discharges at some facilities are greater than withdrawals due to precipitation that is managed and discharged in accordance with local regulations. In 2023, we see increased volumes discharged due to weather conditions (precipitation).

Brackish surface water/seawater

(9.2.8.1) Relevance

Select from:

☑ Relevant

(9.2.8.2) Volume (megaliters/year)

6309.2

(9.2.8.3) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.8.4) Primary reason for comparison with previous reporting year

Select from:

☑ Other, please specify :No significant change.

(9.2.8.5) Please explain

Discharge to seawater is relevant in our Potash operations in Brazil. No significant variance year-over-year identified.

Groundwater

(9.2.8.1) Relevance

Select from:

☑ Not relevant

(9.2.8.5) Please explain

Groundwater discharges are no longer relevant to the company. In the past years, onsite brine injection volumes were reported as groundwater discharges, but according to CDP's methodology, discharge is the sum of effluents and other water leaving the boundaries of the organization, which is not the case for brine injection in our Potash operations, since there are no discharges outside the site limits.

Third-party destinations

(9.2.8.1) Relevance

Select from:

☑ Not relevant

(9.2.8.5) Please explain

Select Mosaic facilities have agreements in place to transfer wastewater(s) to local utilities, on an as-needed basis. We did not discharge any water to third party destinations in 2023.
[Fixed row]

(9.2.9) Within your direct operations, indicate the highest level(s) to which you treat your discharge.

Tertiary treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☑ Relevant

(9.2.9.2) Volume (megaliters/year)

5888.6

(9.2.9.3) Comparison of treated volume with previous reporting year

Select from:

☑ Lower

(9.2.9.4) Primary reason for comparison with previous reporting year

Select from:

☑ Change in accounting methodology

(9.2.9.5) % of your sites/facilities/operations this volume applies to

Select from:

☑ 21-30

(9.2.9.6) Please explain

This category is used to describe tertiary treatment using Reverse Osmosis technology. This process is used at several of our phosphate manufacturing facilities. Reverse Osmosis uses membrane technology to remove metals, nutrients (nitrogen and phosphorous) and other ions that are in our process water and need removal prior to consideration for discharge. Only the permeate stream can be discharged and must meet outfall compliance limits. All discharge volumes were subject to water quality controls before being released to receiving water bodies. Outfalls are subject to monitoring that involves both continuous real time monitoring for select parameters (such as flow) and additional analysis as required by applicable permits. Approximate percentage of operations was derived using gross margin for business unit level only. Reassessment of our accounting methodology and access to more granular data in 2023 allowed us to re-classify volumes of discharge by type of treatment more accurately compared to estimates made in 2022 which explains year-over-year changes. Annual discharge volumes are materially influenced by climate.

Secondary treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:
☑ Relevant

(9.2.9.2) Volume (megaliters/year)

1726.94

(9.2.9.3) Comparison of treated volume with previous reporting year

Select from:
☑ Higher

(9.2.9.4) Primary reason for comparison with previous reporting year

Select from:
☑ Change in accounting methodology

(9.2.9.5) % of your sites/facilities/operations this volume applies to

Select from:
☑ 21-30

(9.2.9.6) Please explain

This category is used to describe treatment using liming applied to process water which is used at several of our phosphates manufacturing facilities. Liming uses a precipitation aid (calcium carbonate) to remove metals, nutrients (nitrogen and phosphorous) and other ions that are in our process water and need removal prior to consideration for discharge. Final discharges at outfalls must meet compliance limits. (All discharge volumes were subject to water quality controls before being released to receiving water bodies.). Outfalls are subject to monitoring that involves both continuous real time monitoring for select parameters (such as flow) and additional analysis as required by applicable permits. Reassessment of our accounting methodology and access to more granular data in 2023 allowed us to re-classify volumes of discharge by type of treatment more accurately compared to estimates made in 2022 which explains year-over-year changes. Annual discharge volumes are materially influenced by climate.

Primary treatment only

(9.2.9.1) Relevance of treatment level to discharge

Select from:
☑ Relevant

(9.2.9.2) Volume (megaliters/year)

359642.23

(9.2.9.3) Comparison of treated volume with previous reporting year

Select from:
☑ Higher

(9.2.9.4) Primary reason for comparison with previous reporting year

Select from:
☑ Change in accounting methodology

(9.2.9.5) % of your sites/facilities/operations this volume applies to

Select from:
☑ 21-30

(9.2.9.6) Please explain

This category is used to describe settling and sand filtration. Several new permitted outfalls at Mosaic Phosphate mine sites have employed sand filter technologies as a form of treatment to meet numeric nutrient criteria for discharges to surface waters. uses membrane technology to remove metals, nutrients (nitrogen and phosphorous) and other ions that are in our process water and need removal prior to consideration for discharge. Discharges must meet outfall compliance limits. (All discharge volumes were subject to water quality controls before being released to receiving water bodies.). Outfalls are subject to monitoring that involves both continuous real time monitoring for select parameters (such as flow) and additional analysis as required by applicable permits. Reassessment of our accounting methodology and access to more granular data in 2023 allowed us to re-classify volumes of discharge by type of treatment more accurately compared to estimates made in 2022 which explains year-over-year changes. Annual discharge volumes are materially influenced by climate.

Discharge to the natural environment without treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☑ Relevant

(9.2.9.2) Volume (megaliters/year)

134538.85

(9.2.9.3) Comparison of treated volume with previous reporting year

Select from:

☑ Lower

(9.2.9.4) Primary reason for comparison with previous reporting year

Select from:

☑ Change in accounting methodology

(9.2.9.5) % of your sites/facilities/operations this volume applies to

Select from:

☑ 100%

(9.2.9.6) Please explain

This category is used to describe waters such as stormwater that meet outfall criteria with limited, unspecified (settling/biological) or without treatment. The year-over-year discharges to fresh surface water are about the same and is largely influenced by climate (precipitation received). This category is across all sites (including those that have no surface discharge), hence have used 100% to signify coverage. Reassessment of our accounting methodology and access to more granular data in 2023 allowed us to re-classify volumes of discharge by type of treatment more accurately compared to estimates made in 2022 which explains year-over-year changes. Annual discharge volumes are materially influenced by climate.

Discharge to a third party without treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☑ Not relevant

(9.2.9.6) Please explain

We do not discharge from our facilities to a third party, as all our treatment is done on site. Annual discharge volumes are materially influenced by climate.

Other

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☑ Relevant

(9.2.9.2) Volume (megaliters/year)

56460.59

(9.2.9.3) Comparison of treated volume with previous reporting year

Select from:

☑ Higher

(9.2.9.4) Primary reason for comparison with previous reporting year

Select from:

☑ Change in accounting methodology

(9.2.9.5) % of your sites/facilities/operations this volume applies to

Select from:

☑ 21-30

(9.2.9.6) Please explain

Last year, we deemed this category irrelevant, however, upon reassessment of our accounting methodology, we currently consider that this category covers a mix of treatment types not included in the above categories, for example, biological treatment. Annual discharge volumes are materially influenced by climate.
[Fixed row]

(9.2.10) Provide details of your organization's emissions of nitrates, phosphates, pesticides, and other priority substances to water in the reporting year.

	Emissions to water in the reporting year (metric tons)	Categories of substances included	Please explain
	3707000	*Select all that apply* ☑ Nitrates ☑ Phosphates	*Pesticides are not widely used in our operations, thus immaterial. For this reason, we do not track emissions of pesticides to water bodies.*

[Fixed row]

(9.3) In your direct operations and upstream value chain, what is the number of facilities where you have identified substantive water-related dependencies, impacts, risks, and opportunities?

Direct operations

(9.3.1) Identification of facilities in the value chain stage

Select from:
☑ Yes, we have assessed this value chain stage and identified facilities with water-related dependencies, impacts, risks, and opportunities

(9.3.2) Total number of facilities identified

16

(9.3.3) % of facilities in direct operations that this represents

Select from:
☑ 26-50

(9.3.4) Please explain

There are sixteen facilities exposed to water risk. These facilities represent material consumers of water and producers of product or key intermediaries for our business.

Upstream value chain

(9.3.1) Identification of facilities in the value chain stage

Select from:
☑ No, we have not assessed this value chain stage for facilities with water-related dependencies, impacts, risks, and opportunities, but we are planning to do so in the next 2 years

(9.3.4) Please explain

We have not assessed this value chain stage but plan to start mapping that within the next 2 years.
[Fixed row]

(9.3.1) For each facility referenced in 9.3, provide coordinates, water accounting data, and a comparison with the previous reporting year.

Row 1

(9.3.1.1) Facility reference number

Select from:
☑ Facility 10

(9.3.1.2) Facility name (optional)

New Wales

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

United States of America

☑ Other, please specify :Alafia

(9.3.1.8) Latitude

27.832701

(9.3.1.9) Longitude

-82.051048

(9.3.1.10) Located in area with water stress

Select from:

☑ Yes

(9.3.1.13) Total water withdrawals at this facility (megaliters)

19029.52

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ About the same

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

19029.52

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

12537.97

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:
☑ About the same

(9.3.1.23) Discharges to fresh surface water

12537.97

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

6491.55

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:
☑ About the same

(9.3.1.29) Please explain

Water withdrawals, discharges and consumption remained fairly consistent with last year.

Row 2

(9.3.1.1) Facility reference number

Select from:

☑ Facility 5

(9.3.1.2) Facility name (optional)

Colonsay

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan

☑ Other, please specify :Qu'Appelle

(9.3.1.8) Latitude

51.934105

(9.3.1.9) Longitude

-105.763496

(9.3.1.10) Located in area with water stress

Select from:

☑ Yes

(9.3.1.13) Total water withdrawals at this facility (megaliters)

902.98

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ About the same

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

902.98

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

0

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ About the same

(9.3.1.23) Discharges to fresh surface water

0

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

902.98

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:
☑ About the same

(9.3.1.29) Please explain

Water withdrawals, discharges and consumption remained fairly consistent with last year. Mosaic's Saskatchewan facilities maintain a "zero-discharge" approach.

Row 3

(9.3.1.1) Facility reference number

Select from:
☑ Facility 6

(9.3.1.2) Facility name (optional)

Araxa

(9.3.1.3) Value chain stage

Select from:
☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply
☑ Dependencies
☑ Impacts
☑ Risks
☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan

☑ Other, please specify :La Plata

(9.3.1.8) Latitude

-19.629278

(9.3.1.9) Longitude

-46.977984

(9.3.1.10) Located in area with water stress

Select from:

☑ Yes

(9.3.1.13) Total water withdrawals at this facility (megaliters)

10150

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ Higher

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

10150

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

14403.4

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:
☑ Higher

(9.3.1.23) Discharges to fresh surface water

14403.4

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

0

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:
☑ Lower

(9.3.1.29) Please explain

Increased water withdrawals and water discharges due to site water balance challenges in 2023. Consumption is lower due to greater discharges than withdrawals.

Row 4

(9.3.1.1) Facility reference number

Select from:
☑ Facility 12

(9.3.1.2) Facility name (optional)

Uncle Sam

(9.3.1.3) Value chain stage

Select from:
☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply
☑ Dependencies
☑ Impacts
☑ Risks
☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:
☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Canada
☑ Mississippi River

(9.3.1.8) Latitude

30.037428

(9.3.1.9) Longitude

-90.827377

(9.3.1.10) Located in area with water stress

Select from:
☑ Yes

(9.3.1.13) Total water withdrawals at this facility (megaliters)

125639.96

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:
☑ Lower

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

125588.55

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

51.41

(9.3.1.21) Total water discharges at this facility (megaliters)

126406.28

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:
☑ Lower

(9.3.1.23) Discharges to fresh surface water

126406.28

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

0

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:
☑ About the same

(9.3.1.29) Please explain

Lower water withdrawals and water discharges due to decrease in production at this site in the reporting year.

Row 5

(9.3.1.1) Facility reference number

Select from:

☑ Facility 15

(9.3.1.2) Facility name (optional)

Taquari-Vassouras

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan

☑ Other, please specify **:**Uruguay - Brazil, South Atlantic Coast

(9.3.1.8) Latitude

-10.651971

(9.3.1.9) Longitude

-10.651971

(9.3.1.10) Located in area with water stress

Select from:

☑ Yes

(9.3.1.13) Total water withdrawals at this facility (megaliters)

4912.18

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ About the same

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

4912.18

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

6309.2

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ About the same

(9.3.1.23) Discharges to fresh surface water

0

(9.3.1.24) Discharges to brackish surface water/seawater

6309.2

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

0

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ Lower

(9.3.1.29) Please explain

Water withdrawals and discharges remained fairly consistent with last year. Consumption is lower due to greater discharges than withdrawals.

Row 6

(9.3.1.1) Facility reference number

Select from:

☑ Facility 16

(9.3.1.2) Facility name (optional)

Belle Plaine

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:
☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan
☑ Other, please specify :Qu'Appelle

(9.3.1.8) Latitude

50.43

(9.3.1.9) Longitude

-105.2

(9.3.1.10) Located in area with water stress

Select from:
☑ No

(9.3.1.13) Total water withdrawals at this facility (megaliters)

10699.79

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:
☑ About the same

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

10409.46

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

290.34

(9.3.1.21) Total water discharges at this facility (megaliters)

0

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ About the same

(9.3.1.23) Discharges to fresh surface water

0

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

10699.79

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:
☑ About the same

(9.3.1.29) Please explain

Water withdrawals, discharges and consumption remained fairly consistent with last year. Mosaic's Saskatchewan facilities maintain a "zero-discharge" approach.

Row 7

(9.3.1.1) Facility reference number

Select from:
☑ Facility 8

(9.3.1.2) Facility name (optional)

Patrocinio

(9.3.1.3) Value chain stage

Select from:
☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan

☑ Other, please specify **:**La Plata

(9.3.1.8) Latitude

-19.015003

(9.3.1.9) Longitude

-46.80879

(9.3.1.10) Located in area with water stress

Select from:

☑ Yes

(9.3.1.13) Total water withdrawals at this facility (megaliters)

117.16

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:
☑ About the same

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

6.66

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

110.5

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

12960.83

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ Much higher

(9.3.1.23) Discharges to fresh surface water

12960.83

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

0

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ About the same

(9.3.1.29) Please explain

Water withdrawals and consumption remained fairly consistent with last year. Discharges are much higher due to mining area extension and increased capacity of water treated and discharged at the site in the reporting year.

Row 8

(9.3.1.1) Facility reference number

Select from:
☑ Facility 3

(9.3.1.2) Facility name (optional)

Bartow

(9.3.1.3) Value chain stage

Select from:
☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply
☑ Dependencies
☑ Impacts
☑ Risks
☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:
☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan
☑ Other, please specify **:**Peace

(9.3.1.8) Latitude

27.907545

(9.3.1.9) Longitude

-81.800537

(9.3.1.10) Located in area with water stress

Select from:

☑ Yes

(9.3.1.13) Total water withdrawals at this facility (megaliters)

4688.23

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ About the same

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

4688.23

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

4604.12

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:
☑ Higher

(9.3.1.23) Discharges to fresh surface water

4604.12

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

84.11

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ Much lower

(9.3.1.29) Please explain

Outfall volumes in Florida are directly related to precipitation.

Row 9

(9.3.1.1) Facility reference number

Select from:

☑ Facility 13

(9.3.1.2) Facility name (optional)

Esterhazy K1

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan

☑ Other, please specify :Qu'Appelle

(9.3.1.8) Latitude

50.729282

(9.3.1.9) Longitude

-101.933723

(9.3.1.10) Located in area with water stress

Select from:

☑ Yes

(9.3.1.13) Total water withdrawals at this facility (megaliters)

952.73

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ About the same

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

952.73

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

0

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:
☑ About the same

(9.3.1.23) Discharges to fresh surface water

0

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

0

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:
☑ About the same

(9.3.1.29) Please explain

Water withdrawals, discharges and consumption remained fairly consistent with last year. Mosaic's Saskatchewan facilities maintain a "zero-discharge" approach.

Row 10

(9.3.1.1) Facility reference number

Select from:
☑ Facility 11

(9.3.1.2) Facility name (optional)

Riverview

(9.3.1.3) Value chain stage

Select from:
☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan

☑ Other, please specify :Alafia

(9.3.1.8) Latitude

27.860191

(9.3.1.9) Longitude

-82.3936

(9.3.1.10) Located in area with water stress

Select from:

☑ Yes

(9.3.1.13) Total water withdrawals at this facility (megaliters)

3690.83

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:
☑ About the same

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

3665.72

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

25.11

(9.3.1.21) Total water discharges at this facility (megaliters)

596.39

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:
☑ Lower

(9.3.1.23) Discharges to fresh surface water

596.39

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

3094.44

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ About the same

(9.3.1.29) Please explain

Outfall volumes in Florida are directly related to precipitation.

Row 11

(9.3.1.1) Facility reference number

Select from:

☑ Facility 14

(9.3.1.2) Facility name (optional)

Esterhazy K2 (This site includes water usage of the Potash site Esterhazy K3 whose water is supplied by Esterhazy K2 via pipeline.)

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan

☑ Other, please specify **:**Qu'Appelle

(9.3.1.8) Latitude

50.65768

(9.3.1.9) Longitude

-101.848412

(9.3.1.10) Located in area with water stress

Select from:

☑ Yes

(9.3.1.13) Total water withdrawals at this facility (megaliters)

2412.53

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ About the same

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

2412.53

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

0

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ About the same

(9.3.1.23) Discharges to fresh surface water

0

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

2412.53

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ About the same

(9.3.1.29) Please explain

Water withdrawals, discharges and consumption remained fairly consistent with last year. Mosaic's Saskatchewan facilities maintain a "zero-discharge" approach.

Row 12

(9.3.1.1) Facility reference number

Select from:

☑ Facility 4

(9.3.1.2) Facility name (optional)

Faustina

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Canada

☑ Mississippi River

(9.3.1.8) Latitude

30.083384

(9.3.1.9) Longitude

-90.914391

(9.3.1.10) Located in area with water stress

Select from:

☑ Yes

(9.3.1.13) Total water withdrawals at this facility (megaliters)

11754.33

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ Higher

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

11754.33

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

27.13

(9.3.1.21) Total water discharges at this facility (megaliters)

8604.24

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:
☑ Lower

(9.3.1.23) Discharges to fresh surface water

8604.24

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

3150.08

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ Higher

(9.3.1.29) Please explain

Water withdrawals are higher compared to previous year due to installation of instrumentation that enhanced water intake accuracy at the site. On the other hand, lower discharges are due to lower production.

Row 13

(9.3.1.1) Facility reference number

Select from:

☑ Facility 2

(9.3.1.2) Facility name (optional)

Carlsbad

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies
☑ Impacts
☑ Risks
☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:
☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan
☑ Other, please specify **:**Pecos

(9.3.1.8) Latitude

32.412258

(9.3.1.9) Longitude

-103.939217

(9.3.1.10) Located in area with water stress

Select from:
☑ Yes

(9.3.1.13) Total water withdrawals at this facility (megaliters)

5233.89

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ About the same

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

5233.89

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

0

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ About the same

(9.3.1.23) Discharges to fresh surface water

0

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

5233.89

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:
☑ About the same

(9.3.1.29) Please explain

Water withdrawals, discharges and consumption remained fairly consistent with last year. Water is routed to a surface impoundment and allowed to evaporate. Per CDP guidance, evaporative losses are not counted as discharge.

Row 14

(9.3.1.1) Facility reference number

Select from:
☑ Facility 1

(9.3.1.2) Facility name (optional)

Cajati

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan

☑ Other, please specify :Uruguay-Brazil, South Atlantic Coast

(9.3.1.8) Latitude

-24.714879

(9.3.1.9) Longitude

-48.124609

(9.3.1.10) Located in area with water stress

Select from:
☑ Yes

(9.3.1.13) Total water withdrawals at this facility (megaliters)

16536.04

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:
☑ About the same

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

16536.04

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

23945.1

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ About the same

(9.3.1.23) Discharges to fresh surface water

23945.1

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

0

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ About the same

(9.3.1.29) Please explain

Water withdrawals, discharges and consumption remained fairly consistent with last year.

Row 15

(9.3.1.1) Facility reference number

Select from:

☑ Facility 9

(9.3.1.2) Facility name (optional)

Tapira

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan
☑ Other, please specify :La Plata

(9.3.1.8) Latitude

-19.842885

(9.3.1.9) Longitude

-46.852427

(9.3.1.10) Located in area with water stress

Select from:
☑ Yes

(9.3.1.13) Total water withdrawals at this facility (megaliters)

12983.68

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:
☑ About the same

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

12970.74

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

12.95

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

227299.92

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:
☑ Much higher

(9.3.1.23) Discharges to fresh surface water

227299.92

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

0

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ About the same

(9.3.1.29) Please explain

Water withdrawals and consumption remained fairly consistent with last year. Discharges are much higher in 2023 due to higher precipitation and drought period in 2022.

Row 16

(9.3.1.1) Facility reference number

Select from:

☑ Facility 7

(9.3.1.2) Facility name (optional)

Catalao II

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies
☑ Impacts
☑ Risks
☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:
☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan
☑ Other, please specify :La Plata

(9.3.1.8) Latitude

-18.164763

(9.3.1.9) Longitude

-47.905652

(9.3.1.10) Located in area with water stress

Select from:
☑ Yes

(9.3.1.13) Total water withdrawals at this facility (megaliters)

5763.63

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:
☑ About the same

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

5718.6

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

45.03

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

31222.85

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:
☑ About the same

(9.3.1.23) Discharges to fresh surface water

31222.85

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

0

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:
☑ Much lower

(9.3.1.29) Please explain

Discharges are greater than withdrawals due to precipitation that is managed and discharged in accordance with local regulations.
[Add row]

(9.3.2) For the facilities in your direct operations referenced in 9.3.1, what proportion of water accounting data has been third party verified?

Water withdrawals – total volumes

(9.3.2.1) % verified

Select from:
☑ 76-100

(9.3.2.2) Verification standard used

ISAE 3000 Limited Assurance

Water withdrawals – volume by source

(9.3.2.1) % verified

Select from:
☑ 76-100

(9.3.2.2) Verification standard used

ISAE 3000 Limited Assurance

Water withdrawals – quality by standard water quality parameters

(9.3.2.1) % verified

Select from:
☑ Not verified

(9.3.2.3) Please explain

This accounting data is relevant to Mosaic but we have prioritized withdrawal volumes alongside other important energy and emissions-related measures for our annual data assurance process. Moving forward, we will explore including this measure in our annual assurance process.

Water discharges – total volumes

(9.3.2.1) % verified

Select from:
☑ Not verified

(9.3.2.3) Please explain

This accounting data is relevant to Mosaic but we have prioritized withdrawal volumes alongside other important energy and emissions-related measures for our annual data assurance process. Moving forward, we will explore including this measure in our annual assurance process.

Water discharges – volume by destination

(9.3.2.1) % verified

Select from:
☑ Not verified

(9.3.2.3) Please explain

This accounting data is relevant to Mosaic but we have prioritized withdrawal volumes alongside other important energy and emissions-related measures for our annual data assurance process. Moving forward, we will explore including this measure in our annual assurance process.

Water discharges – volume by final treatment level

(9.3.2.1) % verified

Select from:
☑ Not verified

(9.3.2.3) Please explain

This accounting data is relevant to Mosaic but we have prioritized withdrawal volumes alongside other important energy and emissions-related measures for our annual data assurance process. Moving forward, we will explore including this measure in our annual assurance process.

Water discharges – quality by standard water quality parameters

(9.3.2.1) % verified

Select from:

☑ Not verified

(9.3.2.3) Please explain

This accounting data is relevant to Mosaic but we have prioritized withdrawal volumes alongside other important energy and emissions-related measures for our annual data assurance process. Moving forward, we will explore including this measure in our annual assurance process.

Water consumption – total volume

(9.3.2.1) % verified

Select from:

☑ Not verified

(9.3.2.3) Please explain

This accounting data is relevant to Mosaic but we have prioritized withdrawal volumes alongside other important energy and emissions-related measures for our annual data assurance process. Moving forward, we will explore including this measure in our annual assurance process
[Fixed row]

(9.4) Could any of your facilities reported in 9.3.1 have an impact on a requesting CDP supply chain member?

Select from:

☑ This is confidential

(9.5) Provide a figure for your organization's total water withdrawal efficiency.

	Revenue (currency)	Total water withdrawal efficiency	Anticipated forward trend
	13696100000	*45852.12*	*45,852.12*

[Fixed row]

(9.6) Do you calculate water intensity for your activities in the chemical sector?

Select from:

☑ Yes

(9.6.1) For your top five products by production weight/volume, provide the following water intensity information associated with your activities in the chemical sector.

Row 1

(9.6.1.1) Product type

Bulk inorganic chemicals

☑ Fertilizers

(9.6.1.2) Product name

Phosphate Crop Nutrient & Animal Feed

(9.6.1.3) Water intensity value (m3/denominator)

7.86

(9.6.1.4) Numerator: water aspect

Select from:

☑ Freshwater withdrawals

(9.6.1.5) Denominator

Select from:

☑ Ton

(9.6.1.6) Comparison with previous reporting year

Select from:

☑ About the same

(9.6.1.7) Please explain

The water intensity value remains fairly consistent year-over-year in 2023. This value excludes surface once through cooling water volumes at our Uncle Sam facility and only considers concentrate site withdrawals. We anticipate water intensity to decrease in future years due to business- and geographic-specific water strategies focused in part on water use reduction. We have used a variation of this water intensity metric to monitor our performance and stretch for meaningful and sustainable long-term improvement in water stewardship. Our current water reduction strategy includes optimizing production, implementing efficiency projects, upgrading equipment, driving cultural change to harness the ingenuity of our workforce, and contemplating the feasibility of options that would drive significant improvements in our performance. Note: Mosaic's primary products are phosphate and potash crop nutrients, hence our providing details in this section on two products and not five as requested.

Row 2

(9.6.1.1) Product type

Bulk inorganic chemicals

☑ Fertilizers

(9.6.1.2) Product name

Potash Crop Nutrient

(9.6.1.3) Water intensity value (m3/denominator)

2.92

(9.6.1.4) Numerator: water aspect

Select from:

☑ Freshwater withdrawals

(9.6.1.5) Denominator

Select from:

☑ Ton

(9.6.1.6) Comparison with previous reporting year

Select from:

☑ About the same

(9.6.1.7) Please explain

The water intensity value remains fairly consistent year-over-year in 2023. We anticipate water intensity to decrease in future years due to business- and geographic-specific water strategies focused in part on water use reduction. We have used a variation of this water intensity metric to monitor our performance and stretch for meaningful and sustainable long-term improvement in water stewardship. Our current water reduction strategy includes optimizing production, implementing efficiency projects, upgrading equipment, driving cultural change to harness the ingenuity of our workforce, and contemplating the feasibility of options that would drive significant improvements in our performance.

[Add row]

(9.12) Provide any available water intensity values for your organization's products or services.

Row 1

(9.12.1) Product name

Phosphate Crop Nutrient & Animal Feed

(9.12.2) Water intensity value

7.86

(9.12.3) Numerator: Water aspect

Select from:

☑ Water withdrawn

(9.12.4) Denominator

tonne of product

(9.12.5) Comment

This value excludes surface once through cooling water volumes at our Uncle Sam facility. We anticipate water intensity to decrease in future years due to business- and geographic-specific water strategies focused in part on water use reduction. We have used a variation of this water intensity metric to monitor our performance and stretch for meaningful and sustainable long-term improvement in water stewardship. Our current water reduction strategy includes optimizing production, implementing efficiency projects, upgrading equipment, driving cultural change to harness the ingenuity of our workforce, and contemplating the feasibility of options that would drive significant improvements in our performance. Note: Mosaic's primary products are phosphate and potash crop nutrients, hence our providing details in this section on two products and not five as requested.

Row 2

(9.12.1) Product name

Potash Crop Nutrient

(9.12.2) Water intensity value

2.92

(9.12.3) Numerator: Water aspect

Select from:

☑ Water withdrawn

(9.12.4) Denominator

tonne of product

(9.12.5) Comment

We anticipate water intensity to decrease in future years due to business- and geographic-specific water strategies focused in part on water use reduction. We have used a variation of this water intensity metric to monitor our performance and stretch for meaningful and sustainable long-term improvement in water stewardship. Our current water reduction strategy includes optimizing production, implementing efficiency projects, upgrading equipment, driving cultural change to harness the ingenuity of our workforce, and contemplating the feasibility of options that would drive significant improvements in our performance.
[Add row]

(9.13) Do any of your products contain substances classified as hazardous by a regulatory authority?

	Products contain hazardous substances	Comment
	Select from: ☑ No	*Produced fertilizer is a reflection of its feedstocks, which include a variety of compounds.*

[Fixed row]

(9.14) Do you classify any of your current products and/or services as low water impact?

(9.14.1) Products and/or services classified as low water impact

Select from:
☑ Yes

(9.14.2) Definition used to classify low water impact

Phosphogypsum is defined as low water impact given its ability to remediate sandy soils. Our Brazilian operations sell the phosphogypsum coproduct to farmers. Phosphogypsum is generated during the production of phosphate fertilizers. By adding phosphogypsum to cropland (analogous to natural gypsum) it increases the ability of sandy soils to soak up water after precipitation, thereby reducing runoff and improving water retention.

(9.14.4) Please explain

In 2023, our Brazil business sold approximately 5 million tons of phosphogypsum. By adding phosphogypsum to cropland (analogous to natural gypsum) it increases the ability of sandy soils to soak up water after precipitation, thereby reducing runoff and improving water retention.
[Fixed row]

(9.15) Do you have any water-related targets?

Select from:
☑ Yes

(9.15.1) Indicate whether you have targets relating to water pollution, water withdrawals, WASH, or other water-related categories.

Water pollution

(9.15.1.1) Target set in this category

Select from:
☑ Yes

Water withdrawals

(9.15.1.1) Target set in this category

Select from:
☑ Yes

Water, Sanitation, and Hygiene (WASH) services

(9.15.1.1) Target set in this category

Select from:

☑ No, but we plan to within the next two years

(9.15.1.2) Please explain

Mosaic is continually reviewing our sustainability targets with emphasis on how we can improve our water footprint. Of note we are currently in the process of evaluating the next generation of sustainability targets post the expiration of our set of 2025 sustainability targets.

Other

(9.15.1.1) Target set in this category

Select from:

☑ Yes

[Fixed row]

(9.15.2) Provide details of your water-related targets and the progress made.

Row 1

(9.15.2.1) Target reference number

Select from:

☑ Target 1

(9.15.2.2) Target coverage

Select from:

☑ Organization-wide (direct operations only)

(9.15.2.3) Category of target & Quantitative metric

Water consumption

☑ Reduction per unit of production

(9.15.2.4) Date target was set

12/31/2020

(9.15.2.5) End date of base year

12/31/2015

(9.15.2.6) Base year figure

7.78

(9.15.2.7) End date of target year

12/31/2025

(9.15.2.8) Target year figure

6.22

(9.15.2.9) Reporting year figure

7.5

(9.15.2.10) Target status in reporting year

Select from:

☑ Underway

(9.15.2.11) % of target achieved relative to base year

18

(9.15.2.12) Global environmental treaties/initiatives/ frameworks aligned with or supported by this target

Select all that apply

☑ Sustainable Development Goal 6

(9.15.2.13) Explain target coverage and identify any exclusions

This is companywide target. Includes direct operations only and excludes idled and closed facilities.

(9.15.2.14) Plan for achieving target, and progress made to the end of the reporting year

We anticipate water intensity to decrease in future years due to business- and geographic-specific water strategies focused in part on water use reduction. We have used a variation of this water intensity metric to monitor our performance and stretch for meaningful and sustainable long-term improvement in water stewardship. Our current water reduction strategy includes optimizing production, implementing efficiency projects, upgrading equipment, driving cultural change to harness the ingenuity of our workforce, and contemplating the feasibility of options that would drive significant improvements in our performance. As of the end of 2023, we have achieved a 4 percent reduction since our 2015 baseline. This is an increase since 2021, largely due to production shortfalls and operational challenges. However, we are still on course to meet our 2025 targets.

(9.15.2.16) Further details of target

In 2020 we announced a target to reduce our freshwater withdrawals by 20 percent per tonne of product by 2025.

Row 2

(9.15.2.1) Target reference number

Select from:

☑ Target 2

(9.15.2.2) Target coverage

Select from:

☑ Organization-wide (direct operations only)

(9.15.2.3) Category of target & Quantitative metric

Water pollution

☑ Reduction in water discharges per business unit

(9.15.2.4) Date target was set

12/31/2020

(9.15.2.5) End date of base year

12/31/2020

(9.15.2.6) Base year figure

6.0

(9.15.2.7) End date of target year

12/31/2025

(9.15.2.8) Target year figure

0.0

(9.15.2.9) Reporting year figure

4

(9.15.2.10) Target status in reporting year

Select from:

☑ Underway

(9.15.2.11) % of target achieved relative to base year

33

(9.15.2.12) Global environmental treaties/initiatives/ frameworks aligned with or supported by this target

Select all that apply

☑ Other, please specify :Target aligned to local, regional and national pollution regulations.

(9.15.2.13) Explain target coverage and identify any exclusions

This is a companywide target. Includes direct operations only.

(9.15.2.14) Plan for achieving target, and progress made to the end of the reporting year

This target is to eliminate significant environmental incidents, including the accidental spills of materials to water (spills are a subset of EIFR, dependent on threshold levels). In 2023, we had a total of 4 releases equal to or greater than 2,000 gallons (compared to 11 releases in 2022) which included one release of sulfur dioxide to air; one release of potash (finished product) to soil; one release of phosphate rock slurry to soil; and one release of sulfur to soil. Despite trailing performance in 2023 as expressed in total number of incidents, we are on track to meet our goal to eliminate significant environmental incidents (in 2024). EH&S Team has implemented environmental initiatives to drive continued improvement/reduction in severity of environmental incidents.

(9.15.2.16) Further details of target

This target is to eliminate significant environmental incidents, including the accidental spills of materials to water.
[Add row]

C11. Environmental performance - Biodiversity

(11.2) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

(11.2.1) Actions taken in the reporting period to progress your biodiversity-related commitments

Select from:

☑ Yes, we are taking actions to progress our biodiversity-related commitments

(11.2.2) Type of action taken to progress biodiversity- related commitments

Select all that apply

☑ Law & policy

☑ Species management

☑ Education & awareness

☑ Land/water protection

☑ Land/water management

☑ Other, please specify **:Mosaic will provide more details on biodiversity governance and management in the 2025 CDP response.**

[Fixed row]

(11.4) Does your organization have activities located in or near to areas important for biodiversity in the reporting year?

	Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity	Comment
Other areas important for biodiversity	*Select from:* ☑ Yes	*Mosaic will provide more details on biodiversity governance and management in the 2025 CDP response.*

[Fixed row]

C13. Further information & sign off

(13.1) Indicate if any environmental information included in your CDP response (not already reported in 7.9.1/2/3, 8.9.1/2/3/4, and 9.3.2) is verified and/or assured by a third party?

	Other environmental information included in your CDP response is verified and/or assured by a third party
	Select from: ☑ Yes

[Fixed row]

(13.1.1) Which data points within your CDP response are verified and/or assured by a third party, and which standards were used?

Row 1

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply
☑ Climate change

(13.1.1.2) Disclosure module and data verified and/or assured

Environmental performance – Climate change
☑ Year on year change in absolute emissions (Scope 1 and 2)

(13.1.1.3) Verification/assurance standard

General standards

☑ ISAE 3000

(13.1.1.4) Further details of the third-party verification/assurance process

Our assurance report applies to year-over-year change in GHG emissions (Scope 1&2 [location-based]) between 2022 and 2023. The year-over-year difference in scope 1 and scope 2 emissions was 6%.

(13.1.1.5) Attach verification/assurance evidence/report (optional)

ERM CVS – CDP Limited Assurance Report for Mosaic 2023 (FINAL).pdf

Row 2

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply

☑ Climate change

(13.1.1.2) Disclosure module and data verified and/or assured

Environmental performance – Climate change

☑ Other data point in module 7, please specify :Energy

(13.1.1.3) Verification/assurance standard

General standards

☑ ISAE 3000

(13.1.1.4) Further details of the third-party verification/assurance process

Our assurance report applies to total direct energy (102,116,989 GJ) and total indirect energy (14,005,559 GJ). Scope 1 and 2 (location-based) emissions which totals 4,661,210 tCO2e was also assured by ERM CVS.

(13.1.1.5) Attach verification/assurance evidence/report (optional)

ERM CVS – CDP Limited Assurance Report for Mosaic 2023 (FINAL).pdf

Row 3

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply

☑ Water

(13.1.1.2) Disclosure module and data verified and/or assured

Environmental performance – Water security

☑ Water withdrawals– total volumes

(13.1.1.3) Verification/assurance standard

General standards

☑ ISAE 3000

(13.1.1.4) Further details of the third-party verification/assurance process

Water withdrawals total volumes (additional to "at risk" facilities detailed in Section 9.3.1) verified using ISAE 3000.

(13.1.1.5) Attach verification/assurance evidence/report (optional)

ERM CVS – CDP Limited Assurance Report for Mosaic 2023 (FINAL).pdf

Row 4

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply
☑ Water

(13.1.1.2) Disclosure module and data verified and/or assured

Environmental performance – Water security
☑ Water withdrawals – volumes by source

(13.1.1.3) Verification/assurance standard

General standards
☑ ISAE 3000

(13.1.1.4) Further details of the third-party verification/assurance process

Water withdrawals volumes by source (additional to "at risk" facilities detailed in Section 9.3.1) verified using ISAE 3000.

(13.1.1.5) Attach verification/assurance evidence/report (optional)

ERM CVS – CDP Limited Assurance Report for Mosaic 2023 (FINAL).pdf
[Add row]

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

	Additional information	Attachment (optional)
	Attached is the Commitment to Water Stewardship and Commitment to Climate Change.	*Commitment to Water Stewardship and Commitment to Climate Change..pdf*

[Fixed row]

(13.3) Provide the following information for the person that has signed off (approved) your CDP response.

(13.3.1) Job title

President and Chief Executive Officer

(13.3.2) Corresponding job category

Select from:

☑ Chief Executive Officer (CEO)

[Fixed row]

(13.4) Please indicate your consent for CDP to share contact details with the Pacific Institute to support content for its Water Action Hub website.

Select from:

☑ No