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2017 **SUSTAINABILITY DISCLOSURE & GRI INDEX**



GLOBAL REPORTING INITIATIVE (GRI) INDEX

GENERAL STANDARD DISCLOSURES

GENERAL DISCLOSURE	PAGE (OR LINK)	EXTERNAL ASSURANCE	DISCLOSURE
Organizational Profile			
102-1	The Mosaic Company	-	Name of the organization
102-2	PDF pg. 11	-	Primary brands, products, and services
102-3	Plymouth, Minnesota	-	Location of the organization's headquarters
102-4	Form 10-K pg. F-46	-	Number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report
102-5	Form 10-K pg. 1	-	Nature of ownership and legal form
102-6	Form 10-K pgs. 1-2	-	Markets served
102-7	Form 10-K pgs. 4-17, F-2 For a list of our locations (64 as of the date of this report), please see our website .	-	Scale of the organization
102-8	PDF pg. 12	-	Number of employees
102-9	Form 10-K pgs. 16-18 and Mine-to-Market Value	-	Description of the organization's supply chain
102-10	PDF pg. 14	-	Significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain
102-11	Mosaic addresses the precautionary principle through the organization's management of risk. Please see our Proxy Statement , pg. 6 for more information. In 2013, Mosaic submitted our first United Nations Global Compact (UNGC) Communication on Progress, affirming our commitment to operate according to the UNGC's 10 universal principles, including Principle Seven, which states, "Businesses should support a precautionary approach to environmental challenges."	-	How the precautionary approach or principle is addressed by the organization
102-12	PDF pg. 14	-	Externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses
102-13	PDF pgs. 14-15	-	Memberships of associations (such as industry associations) and national or international advocacy organizations

GENERAL STANDARD DISCLOSURES (continued)

GENERAL DISCLOSURE	PAGE (OR LINK)	EXTERNAL ASSURANCE	DISCLOSURE
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Strategy

102-14	CEO Message	-	CEO Message
102-15	Factors affecting our market, including impacts and risks, are summarized within Mosaic's Form 10-K , pg. 21. Key opportunities are discussed in our 2017 CDP Climate Change Response , pg. 22, and Form 10-K .	-	Key impacts, risks, and opportunities

Ethics and Integrity

102-16	PDF pg. 16	-	Organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics
102-17	PDF pg. 16	-	Mechanisms for advice and concerns about ethics

Governance

102-18	Proxy Statement , pg. 6	-	Governance structure of the organization
102-20	Environmental, Health, Safety and Sustainable Development Committee Charter , pg. 2		Whether the organization has an executive-level position with responsibility for economic, environmental and social topics, and whether post holder report directly to the highest governance body
102-21	Communications with the Board of Directors Policy		Process for consultation between stakeholders and the Board of Directors
102-22	Proxy Statement , pgs. 21-23		Composition of Board of Directors and its committees
102-23	Robert L. Lumpkins is the chair of our Board of Directors. He is an independent director and not an executive officer of the company. This information is accurate as of December 31, 2017. Proxy Statement , pg. 24		Chair of highest governance body
102-24	Proxy Statement , pg. 10		Nomination and selection processes for the Board of Directors and its committees
102-25	Proxy Statement , pg. 19		Processes for the Board of Directors to avoid conflicts of interest
102-28	Proxy Statement , pg. 25		Processes for evaluating the Board's performance
102-29	Proxy Statement , pg. 20		The Board's role in identification and management of impacts, risks and opportunities
102-31	2017 CDP Climate Change response , pg. 6		Frequency of the Board's review of economic, environmental and social impacts, risks, and opportunities
102-33	Communications with the Board of Directors Policy		Process for communicating critical concerns to the Board of Directors.
102-35	Proxy Statement , pg. 28		Compensation policies for the Board and Senior Leadership Team
102-37	Communications with the Board of Directors Policy		Process for considering stakeholder views on compensation policies

GENERAL STANDARD DISCLOSURES (continued)

GENERAL DISCLOSURE	PAGE (OR LINK)	EXTERNAL ASSURANCE	DISCLOSURE
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Stakeholder Engagement

102-40	PDF pg. 16	+Assurance Statement	List of stakeholder groups engaged by the organization
102-41	PDF pg. 18	-	Percentage of total employees covered by collective bargaining agreements
102-42	PDF pg. 16	+Assurance Statement	Basis for identification and selection of stakeholders with whom to engage
102-43	PDF pg. 16	+Assurance Statement	Organization's approach to stakeholder engagement
102-44	PDF pg. 16	+Assurance Statement	Key topics and concerns that have been raised through stakeholder engagement

Reporting Practice

102-45	Form 10-K and PDF pg. 20	-	Entities included in the organization's consolidated financial statements or equivalent documents
102-46	PDF pg. 18	+Assurance Statement	The process for defining the report content and the Aspect Boundaries
102-47	PDF pg. 18	+Assurance Statement	Material Aspects identified in the process for defining report content
102-48	PDF pg. 20	-	Restatements of information
102-49	PDF pg. 20	-	Significant changes from previous reporting periods in the Scope and Aspect Boundaries
102-50	January 1, 2017 – December 31, 2017	-	Reporting period
102-51	June 2017	-	Date of most recent previous report
102-52	Annual	-	Reporting cycle
102-53	Benjamin Pratt, Vice President, Corporate Public Affairs	-	Contact point for questions regarding the report or its contents
102-54	This report has been prepared in accordance with the GRI Standards: core option. External assurance, where available, is noted in this Content Index. PDF pg. 20	-	"In Accordance" option, Index and external assurance. Our report has been prepared in accordance with the GRI Standards: Core option.
102-56	Our Responsibility – Reporting Leadership and Awards and PDF pg. 20	-	External assurance policy

Material Topic Reporting

103-1	PDF pg. 19 The management approach (MA) for each material topic is included within the respective topic section.		Explanation of material topic and its boundary
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MATERIAL TOPICS

MA AND INDICATORS	PAGE (OR LINK)	OMISSIONS	EXTERNAL ASSURANCE	DESCRIPTION	UNGC COP OR FAB PRINCIPLE	SASB DISCLOSURE
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Category: Economic

MATERIAL TOPIC: ECONOMIC PERFORMANCE

MA	PDF pg. 21		+Assurance Statement			
201-1	PDF pgs. 22-23		-	Direct economic value generated and distributed		EM0302-22
201-2	PDF pg. 24		-	Financial implications and other risks and opportunities for the organization's activities due to climate change		
201-3	Form 10-K pg. F-75 and PDF pg. 24		-	Coverage of the organization's defined benefit plan obligations		
201-4	PDF pg. 25		-	Financial assistance received from government		

MATERIAL ASPECT: MARKET PRESENCE

MA	PDF pg. 26		+Assurance Statement			
202-1	PDF pg. 27		-	Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation		
202-2	PDF pg. 27		-	Proportion of senior management hired from the local community at significant locations of operation		

MATERIAL ASPECT: INDIRECT ECONOMIC IMPACTS

MA	PDF pg. 26		+Assurance Statement			
203-1	PDF pg. 28		-	Development and impact of infrastructure investments and services supported		
203-2	PDF pg. 29		-	Significant indirect economic impacts, including the extent of impacts		

MATERIAL ASPECT: PROCUREMENT PRACTICES

MA	PDF pg. 26		+Assurance Statement			
204-1	PDF pg. 29		-	Proportion of spending on local suppliers at significant locations of operation		

MATERIAL ASPECT: ANTI-CORRUPTION

MA	PDF pg. 30		+Assurance Statement			
205-1	PDF pg. 30		-	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified	10	EM0302-22
205-2	PDF pg. 31		-	Communication and training on anti-corruption policies and procedures	10	
205-3	PDF pg. 31		-	Confirmed incidents of corruption and actions taken	10	

MATERIAL ASPECT: ANTI-COMPETITIVE BEHAVIOR

MA	PDF pg. 30		+Assurance Statement			
206-1	PDF pg. 31		-	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes		

MATERIAL TOPICS

MA AND INDICATORS	PAGE (OR LINK)	OMISSIONS	EXTERNAL ASSURANCE	DESCRIPTION	UNGC COP OR FAB PRINCIPLE	SASB DISCLOSURE
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Category: Environmental

MATERIAL ASPECT: MATERIALS

MA	PDF pg. 32		+Assurance Statement			
301-1	PDF pg. 32		-	Materials used by weight or volume		
301-2	PDF pg. 32		-	Percentage of materials used that are recycled input materials	7	
301-3	PDF pg. 32		-	Percentage of products sold and their packaging materials that are reclaimed by category		

MATERIAL ASPECT: ENERGY

MA	PDF pg. 33		+Assurance Statement			
302-1	PDF pg. 37		+Assurance Statement	Energy consumption within the organization		TA07-03-01; EM0302-04
302-2		Energy consumed outside the organization is currently unavailable. We report GHG emissions associated with various sources in 305-3.	-	Energy consumption outside of the organization		
302-3	PDF pg. 39		+Assurance Statement	Energy intensity		
302-4	PDF pg. 39		-	Reduction of energy consumption	7	
302-5	PDF pg. 40		-	Reductions in energy requirements of products and services	7, 8, 9	

MATERIAL ASPECT: WATER

MA	PDF pg. 33		+Assurance Statement			
303-1	PDF pg. 36		+Assurance Statement	Total water withdrawal by source		303-2, 303-3: RT0101-07; TA04-28-01
303-2	PDF pg. 36		-	Water sources significantly affected by withdrawal of water	7	
303-3	PDF pg. 37		-	Total volume of water recycled and reused		

MATERIAL TOPICS

MA AND INDICATORS	PAGE (OR LINK)	OMISSIONS	EXTERNAL ASSURANCE	DESCRIPTION	UNGC COP OR FAB PRINCIPLE	SASB DISCLOSURE
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Category: Environmental (continued)

MATERIAL ASPECT: BIODIVERSITY

MA	PDF pg. 33		+/-Assurance Statement			
304-1	PDF pg. 42		-	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas		EM0302-12
304-2	PDF pg. 43		-	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	7, 8	EM0302-10
MM1	PDF pg. 43		-	Land disturbed or rehabilitated	7	
MM2	PDF pg. 44		-	Number and Percentage of Sites Identified as Requiring Biodiversity Management Plans	7	
304-3	PDF pg. 44		-	Habitats protected or restored	7, 8	
304-4	PDF pgs. 45-46		-	Total number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	7	

MATERIAL ASPECT: EMISSIONS

MA	PDF pg. 33		+/-Assurance Statement			
305-1	PDF pg. 40		+/-Assurance Statement	Direct greenhouse gas (GHG) emissions (Scope 1)	7, 8	RT0101-01; EM0302-01
305-2	PDF pg. 40		+/-Assurance Statement	Energy indirect greenhouse gas (GHG) emissions (Scope 2)	7	
305-3	PDF pg. 41		+/-Assurance Statement	Other indirect greenhouse gas (GHG) emissions (Scope 3)	7	
305-4	PDF pg. 41		-	Greenhouse gas (GHG) emissions intensity	7	
305-5	PDF pg. 41		-	Reduction of greenhouse gas (GHG) emissions	7, 9	
305-7	PDF pg. 42		-	NO _x , SO _x , and other significant air emissions		RT0101-03; EM0302-03

MATERIAL ASPECT: EFFLUENTS AND WASTE

MA	PDF pg. 33		+/-Assurance Statement			
306-1	PDF pg. 47		-	Total water discharge by quality and destination		
306-2	PDF pg. 48		+/-Assurance Statement	Total weight of waste by type and disposal method	7	TA07-05-01
306-3	PDF pg. 49		-	Total number and volume of significant spills		
MM3	PDF pg. 48		-	Overburden, rock, tailings and sludge		EM0302-07; EM0302-08
306-4	PDF pg. 48		-	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally	7	
306-5	PDF pg. 47		-	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the organization's discharges of water and runoff		

MATERIAL ASPECT: ENVIRONMENTAL COMPLIANCE

MA	PDF pg. 33		+/-Assurance Statement			
307-1	PDF pg. 49		-	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations		

MATERIAL ASPECT: SUPPLIER ENVIRONMENTAL ASSESSMENT

MA	PDF pg. 49		+/-Assurance Statement			
308-2	PDF pg. 49		-	Significant actual and potential negative environmental impacts in the supply chain and action taken		

MATERIAL TOPICS

MA AND INDICATORS	PAGE (OR LINK)	OMISSIONS	EXTERNAL ASSURANCE	DESCRIPTION	UNGC COP OR FAB PRINCIPLE	SASB DISCLOSURE
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Category: Social

MATERIAL ASPECT: EMPLOYMENT

MA	PDF pg. 50		+Assurance Statement			
401-1	PDF pg. 51		-	Total number and rates of new employee hires and employee turnover by age group, gender and region		
401-2	PDF pg. 52		-	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation		
401-3		Parental leave is offered to employees in North America, South America and Asia. As parental leaves vary in accordance with local laws and customs across the regions where we operate, Mosaic is unable to track retention rates of employees returning from parental leave.	-	Return to work and retention rates after parental leave, by gender		

MATERIAL ASPECT: LABOR/MANAGEMENT RELATIONS

MA	PDF pg. 50		+Assurance Statement			
402-1	PDF pg. 52		-	Minimum notice periods regarding operational changes, including whether these are specified in collective agreements	3	
MM4	PDF pg. 53		-	Number of strikes and lock-outs exceeding one week's duration, by country		EM0302-20

MATERIAL TOPIC: OCCUPATIONAL HEALTH AND SAFETY

MA	PDF pg. 53		+Assurance Statement			
403-1	PDF pg. 54		-	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	3	
403-2	PDF pg. 54		-	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region		RT0101-20
403-3	PDF pg. 54		-	Workers with high incidence or high risk of diseases related to their occupation		
403-4	PDF pg. 55		-	Health and safety topics covered in formal agreements with trade unions		

MATERIAL TOPICS

MA AND INDICATORS	PAGE (OR LINK)	OMISSIONS	EXTERNAL ASSURANCE	DESCRIPTION	UNGC COP OR FAB PRINCIPLE	SASB DISCLOSURE
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Category: Social (continued)

MATERIAL ASPECT: TRAINING AND EDUCATION

MA	PDF pg. 55		+Assurance Statement			
404-1	PDF pg. 55		-	Average hours of training per year per employee by gender, and by employee category	6	
404-2	PDF pg. 56		-	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	6	
404-3	PDF pg. 56		-	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category		

MATERIAL ASPECT: DIVERSITY AND EQUAL OPPORTUNITY

MA	PDF pg. 50		+Assurance Statement			
405-1	PDF pg. 53		-	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity		
405-2	PDF pg. 53		-	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation		

MATERIAL ASPECT: NON-DISCRIMINATION

MA	PDF pg. 56		+Assurance Statement			
406-1	PDF pg. 56		-	Total number of incidents of discrimination and corrective actions taken	1, 2, 6	

MATERIAL ASPECT: FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING

MA	PDF pg. 56		+Assurance Statement			
407-1	PDF pg. 57		-	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights		

MATERIAL ASPECT: CHILD LABOR

MA	PDF pg. 56		+Assurance Statement			
408-1	PDF pg. 57		-	Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor	1, 2, 5	

MATERIAL ASPECT: FORCED OR COMPULSORY LABOR

MA	PDF pg. 56		+Assurance Statement			
409-1	PDF pg. 57		-	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor	1, 2, 4	

MATERIAL ASPECT: RIGHTS OF INDIGENOUS PEOPLES

MA	PDF pg. 56		+Assurance Statement			
411-1	PDF pg. 57		-	Total number of incidents of violations involving rights of indigenous peoples and actions taken		
MM5	PDF pg. 57		-	Number of operations taking place in or adjacent to indigenous peoples' territories		TA04-30-01

MATERIAL TOPICS

MA AND INDICATORS	PAGE (OR LINK)	OMISSIONS	EXTERNAL ASSURANCE	DESCRIPTION	UNGC COP OR FAB PRINCIPLE	SASB DISCLOSURE
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Category: Social (continued)

MATERIAL ASPECT: LOCAL COMMUNITIES

MA	PDF pg. 58		+Assurance Statement			
413-1	PDF pg. 58		-	Percentage of operations with implemented local community engagement, impact assessments, and development programs	7	
413-2	PDF pg. 61		-	Operations with significant actual and potential negative impacts on local communities		
MM6	PDF pg. 61		-	Number and description of significant disputes relating to land use, customary rights of local communities and indigenous peoples		
MM7	PDF pg. 61		-	The extent to which grievance mechanisms were used to resolve disputes relating to land use, customary rights of local communities and indigenous peoples, and the outcomes		

MATERIAL ASPECT: PUBLIC POLICY

MA	PDF pg. 62		+Assurance Statement			
415-1	PDF pg. 62		-	Total value of political contributions by country and recipient/beneficiary		

MMSS MATERIAL ASPECT: RESETTLEMENT

MM9	PDF pg. 61		-	Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process		
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MMSS MATERIAL ASPECT: CLOSURE PLANNING

MM10	PDF pg. 61		-	Number and percentage of operations with closure plans		
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MATERIAL ASPECT: CUSTOMER HEALTH AND SAFETY

MA	PDF pg. 62		-			
416-1	PDF pg. 63		-	Assessment of the health and safety impacts of product and service categories		

MATERIAL ASPECT: MARKETING AND LABELING

MA	PDF pg. 62		+Assurance Statement			
417-1	PDF pg. 63		-	Type of product and service information required by the organization's procedures for product and service information and labeling, and percentage of significant product and service categories subject to such information requirements		
417-2	PDF pg. 63		-	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes		

GENERAL STANDARD DISCLOSURES

Organizational Profile

Certain statements in this review that are neither reported financials nor other historical information are forward-looking statements. Such forward-looking statements are not guarantees of future performance and are subject to risks and uncertainties that could cause actual results and Mosaic's plans and objectives to differ materially from those expressed in the forward-looking statements. Additional information about such risks and uncertainties is set forth in our reports filed with the Securities and Exchange Commission.

102-2 Activities, Brands, Products and Services

Through our broad crop nutrition product offering, we are the world's leading producer and marketer of phosphate- and potash-based crop nutrients and animal feed ingredients to customers in approximately 40 countries. Our quality nutrients play an important role in nourishing farmers' soil, growing healthy plants, and improving global food security.

PHOSPHATES

We are the largest integrated phosphate producer in the world and one of the largest producers and marketers of phosphate-based animal feed ingredients in the United States. We sell phosphate-based crop nutrients and animal feed ingredients throughout North America and internationally.

We account for approximately 14 percent of estimated global annual production and 75 percent of estimated North American annual production of concentrated phosphate nutrients.

POTASH

We are one of the four largest potash producers in the world. We sell potash throughout North America and internationally, principally as fertilizer, but also for use in industrial applications and, to a lesser degree, as animal feed ingredients. We account for approximately 13 percent of estimated annual global potash production and 39 percent of estimated North American annual potash production.

INTERNATIONAL DISTRIBUTION

Our International Distribution segment consists of sales offices, crop nutrient blending and bagging facilities, port terminals, and warehouses in Brazil, Paraguay, India and China. We also have a single superphosphate (SSP) plant in Brazil that produces crop nutrients by mixing sulfuric acid with phosphate rock. Our international distribution segment serves as a distribution outlet for our Phosphates and Potash segments, but also purchases and markets certain products from other suppliers, generally to complement sales of our own product.

See our [website](#) for a full list of our phosphate, potash, premium crop nutrient and animal feed products.

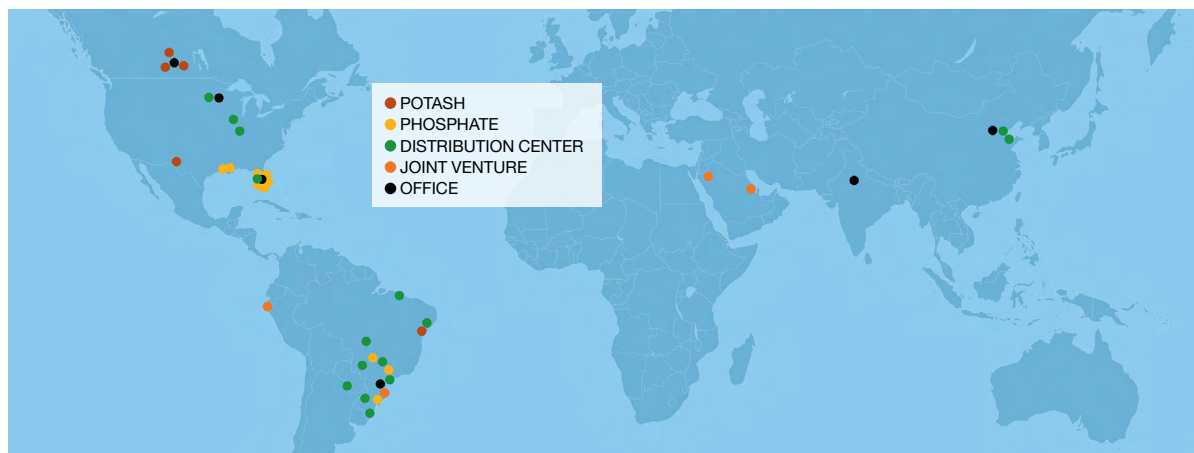


102-4 Location of Operations

We mine phosphate rock in Florida and process rock into finished phosphate products at facilities in Florida and Louisiana. We mine potash in Saskatchewan and New Mexico. We have other production, blending and distribution operations in Brazil, China, India and Paraguay, as well as strategic equity investments in a phosphate rock mine in the Bayovar region in Peru and a joint venture formed to develop a phosphate rock mine and chemical complexes in the Kingdom of Saudi Arabia.

Mosaic conducts business through wholly and majority-owned subsidiaries, as well as businesses in which we own less than a majority or a non-controlling interest. In 2017, we were organized into three reportable business segments: Phosphates, Potash and International Distribution. Additional information about our business and operating segments is provided in our [Form 10-K](#).

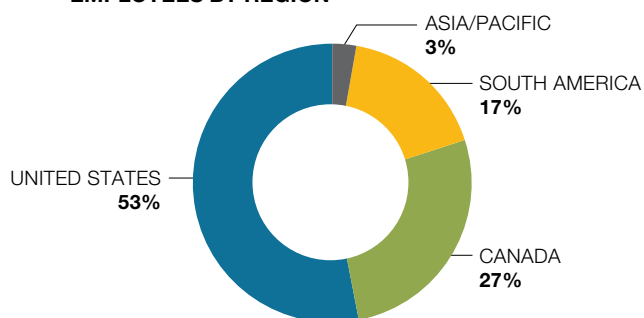
GLOBAL OPERATIONS



102-8 Information on employees and other workers

As of December 31, 2017, Mosaic employed 8,225 regular employees. These figures do not include the more than 7,000 employees that joined Mosaic following the early 2018 acquisition of Vale Fertilizantes in Brazil.

EMPLOYEES BY REGION



2017

WORKFORCE BY REGION AND GENDER

COUNTRY	MALE	FEMALE	TOTAL
Australia	1	—	1
Brazil	1,100	242	1,342
Canada	1,903	302	2,205
China	108	47	155
India	46	5	51
Paraguay	76	10	86
United States	3,752	633	4,385
Total	6,986	1,239	8,225

NOTE: Mosaic does not track individual contract worker counts or demographics. Figures exclude long-term leaves, co-ops, seasonal and temporary employees. Employees considered to be on long-term leave are those away from work for more than 180 days. "Temporary" employees represent a very small percentage of our total workforce (less than 1%). In 2017 we had two part-time (defined as less than 35 hours per week) employees in the United States: one female and one male. These employees are included in the totals above. Fifteen percent of Mosaic's total workforce is female.

102-9 Supply Chain

Mining, producing and delivering millions of tonnes of fertilizer each year to customers around the globe is complex. It requires teams of dedicated professionals working to make responsible decisions each day and at every step in the production and supply chain.

MINING

We work to safely extract potash and phosphate ore from the Earth's extensive reserves.

PHOSPHATE

POTASH

TRANSPORTATION

We move raw materials, phosphate, potash and finished crop nutrition products across the supply chain using pipelines, trains, trucks, river barges and ships.

CUSTOMERS

We sell to retail customers and regional distributors, as well as large international growers.

FARMERS

We provide large and smallholder farmers with the vital crop nutrients and micronutrients they need to help grow healthy plants, achieve better yields and grow food, feed, fuel and fiber more sustainably.

FACT Our premium MicroEssentials® product increases corn yields an average of 7.2 bushels per acre vs. traditional fertilizer.

LAND RECLAMATION

We reclaim every acre of phosphate-mined land, creating high-quality habitats and wildlife corridors for fish, birds and other animals, and land suitable for agriculture and other diverse uses.

FACT We reuse and recycle water to decrease our companywide consumption and increase efficient use.

MANUFACTURING

We refine, process, and blend phosphate and potash minerals to create crop nutrition products, then prepare goods for shipment.

FACT We produce renewable energy through cogeneration, the process of converting waste heat to energy, satisfying approximately 40% of our phosphate operations' annual electricity consumption.

STORAGE & DISTRIBUTION

We have port terminals, warehouses and storage capacity in key geographies, with global distribution.

CONSUMERS

Our crop nutrients play a key role in growing crop yields and providing people with the healthy, affordable food they need to thrive.

FACT We partner with Field to Market®, the International Plant Nutrition Institute, The Nature Conservancy and other organizations on initiatives aimed at increasing agricultural productivity, sustainability and food security—while reducing environmental impacts and protecting natural resources.

Unlike our competitors, we have our own distribution system to sell phosphate- and potash-based crop nutrients and animal feed ingredients, whether produced by us or by other third parties, around the globe. In North America we have one of the largest and most strategically located distribution systems for crop nutrients, including warehouse facilities in key agricultural regions. We also have an extensive network of distribution facilities internationally, including the key growth regions of South America and Asia, with port terminals, warehouses, and blending plants in Brazil, Paraguay, China and India. See our 2017 [Form 10-K](#) for more information about our supply chain.

102-10 Significant changes to the organization and its supply chain

- In January 2017, Mosaic's Colonsay facility resumed potash production after idling production in 2016 in response to market conditions. Employees returned to their positions on or before December 2016 to perform maintenance and ramp up projects.
- In July 2017, Kimberly Bors joined Mosaic as Senior Vice President—Human Resources.
- In October 2017, we announced the temporary idling of our Plant City, Florida phosphate manufacturing facility for at least one year. Approximately 150 employees were transferred to positions at other facilities. In 2017, we also restructured our Phosphates and Corporate operations, reducing our workforce by approximately 280 positions as part of an ongoing cost savings initiative. Additionally, as a result of these changes, approximately 120 employees accepted offers of early retirement. Employees who were impacted by job loss were provided notice, severance packages and career transition services.
- We discontinued operations at our Houston, TX facility in 2017 and expect to sell the facility in 2018. Of the 12 employees that worked at that facility at the time of its closure, one was transferred to another facility, one is still employed at the Houston facility while it remains in caretaker status, and 10 were notified that they no longer have employment with Mosaic and provided severance packages.

102-12 External initiatives

Mosaic recognizes the importance of being active in industry associations and cross-sector business forums. These common platforms help advance cutting-edge scientific research and best management practices within our company and our industry. We consider the relevance of each engagement opportunity to our business strategies, and we pursue mutually beneficial partnerships. Many of the key organizations we engage with are listed here.

EXTERNAL INITIATIVES CROSS-SECTOR ORGANIZATION	WAYS WE ENGAGE	INVOLVEMENT
Campbell Institute	Member	As a member of Campbell Institute, Mosaic collaborates with other high-performers in Environment, Health and Safety across industry sectors and regions of the world.
CDP	Reporter Services Member for Climate Change and Water	Mosaic supports CDP's aims to improve transparency with respect to greenhouse gas emissions, and develop reduction strategies. We report to CDP annually.
Global Reporting Initiative (GRI)	GOLD Community Member	As a member of the GOLD Community, Mosaic is helping to shape the future of sustainability and reporting. Our annual sustainability disclosure is based on GRI's Standards.
Manufacturers Alliance for Productivity and Innovation (MAPI)	Member and Council Participants	MAPI's mission is to build strong leadership within manufacturing, and to drive the growth, profitability, and stature of global manufacturers. As a member of MAPI, Mosaic has representatives on several councils, and uses and provides input to the non-profit's research and benchmarking efforts.
National Association of Environment Managers (NAEM)	Member	Mosaic participates in NAEM's efforts to empower corporate leaders to advance environmental stewardship, create safe and healthy workplaces, and promote global sustainability.
National Association of Manufacturers (NAM)	Member	Through membership and committee participation, Mosaic contributes to NAM's work to create a favorable policy climate for manufacturing in the United States.
Saskatchewan Chamber of Commerce	Committee and Board Level	Through membership and committee participation, Mosaic contributes to NAM's work to create a favorable policy climate for manufacturing in the United States.
United Nations Global Compact (UNGC)	Signatory	In 2011, Mosaic became a signatory to the UNGC, affirming our deep commitment to operating responsibly. We communicate our progress on the UNGC's universal principles in our annual sustainability report.

102-13 Membership of associations

MEMBERSHIP OF ASSOCIATIONS		
INDUSTRY ORGANIZATION	WAYS WE ENGAGE	INVOLVEMENT
Agriculture Nutrient Policy Council (ANPC)	Member	Our membership in the ANPC allows us to be an active stakeholder and leader in the policy process, building the industry's technical, legal and policy capacity.
Agricultural Retailers Association (ARA)	Board Level	Mosaic contributes to ARA's mission to advocate, influence, educate and provide support to agricultural retailers.
Associação Nacional para Difusão de Adubos (ANDA)	Member	As a member of ANDA, Mosaic promotes the value and correct use of fertilizers in Brazil.
Fertilizer Canada (formerly Canadian Fertilizer Institute)	Board Level	Mosaic supports Fertilizer Canada's efforts to promote the responsible, sustainable and safe production, distribution and use of fertilizers.
Conservation Technology Information Center (CTIC)	Board Level	Mosaic partners with CTIC on several initiatives that champion, promote, and provide information on technologies and sustainable agricultural systems.
Field to Market®	Board Level	Mosaic contributes to solutions for sustainability and continuous improvement in U.S. commodity agriculture.
Global Harvest Initiative (GHI)	Board Level	Mosaic contributes to GHI's mission to advocate for productivity improvements throughout the agricultural value chain to sustainably meet the demands of a growing population.
International Fertilizer Industry Association (IFA)	Member	Mosaic supports IFA's efforts to represent, promote and protect the fertilizer industry among policymakers, regulators, farmers and society at large.
International Plant Nutrition Institute (IPNI)	Board Level	Mosaic contributes to and benefits from IPNI's information about the production, distribution and use of crop nutrients, and their influence on soil fertility.
Saskatchewan Mining Association (SMA)	Board Level	Mosaic supports the SMA's aims to enhance the general welfare of the mining industry through technical innovations in the fields of health and safety standards, waste disposal, environmental protection, and extractive metallurgy research and development.
Saskatchewan Potash Producers Association (SPPA)	Board Level	Our membership in SPPA allows us to be an active stakeholder in the policymaking process.
Sindicato Nacional das Indústrias de Matérias-Primas para Fertilizantes (Sinprifert)	Board Level	Mosaic contributes to policy discussions about incentives and general improvement of the business environment related to the production of raw material used by the fertilizer industry in Brazil.
The Fertilizer Institute (TFI)	Board Level	Mosaic partners with TFI in its mission to represent, promote and protect the fertilizer industry.
Fertiliser Association of India (FAI)	Member	Mosaic supports and partners with FAI in its objective to ensure food security through balanced and efficient use of plant nutrients.
Associação Brasileira da Indústria Química (ABIQUM)	Member	Mosaic participates on several ABIQUIM committees and contributes to the development of policy positions on foreign trade, regulatory issues and macroeconomic development.

Ethics and Integrity

102-16 Values, principles, standards and norms of behavior

102-17 Mechanisms for advice and concerns about ethics

In a rapidly changing business environment, it is important for us to remain grounded and focused on what we agree is most important, as outlined in our principles and priorities. No matter where Mosaic operates in the world, we ask that our employees adhere to the same companywide standards.

- **MISSION:** We help the world grow the food it needs
- **PRINCIPLES:** We are responsible, innovative, collaborative and driven
- **PRIORITIES:** Develop, engage and empower our employees; Grow and strengthen our business; Create value for our stakeholders

Our [Code of Business Conduct and Ethics](#) aligns with those principles and priorities and provides information about how we make sure we always do the right thing. Mosaic also maintains a 24-hour independently administered, confidential, and anonymous incident reporting hotline for all Mosaic employees, contractors, vendors, and the public to report perceived ethical issues.

Governance

102-20 Executive-level of responsibility for economic, environmental and social topics

Mosaic's approach to sustainability reflects our commitments to global food security, the environment, our people, the communities where we operate, and our company. We encourage every employee at Mosaic to act responsibly and contribute to our company's success. It's our collective decisions and actions that must be ethical, strategic and sustainable.

Sustainability leadership begins with our Board of Directors. The Environmental Health, Safety and Sustainable Development (EHSS) Committee of the Mosaic Board of Directors provides oversight of our environmental health, safety and sustainable development strategic vision and performance.

View The [EHSS Committee Charter](#) for more information. The Board and Senior Leadership Team review the EHSS Committee's recommendations to develop companywide policies, initiatives, targets and goals. A team of employees, overseen by a Vice President of Public Affairs, manages sustainability initiatives on a day-to-day basis.

The Mosaic Company [Senior Leadership Team \(SLT\)](#), led by our President and Chief Executive Officer, is primarily responsible for managing profit and loss and delivering growth. Implementation and delivery of Mosaic's business strategy and plan are monitored by SLT members. The SLT is supported in matters of sustainability by leading vice president and director-level employees who are accountable for ensuring goals are achieved through site-specific, business segment and companywide implementation.

Stakeholder Engagement

102-40 List of stakeholder groups

102-42 Basis for identification and selection of stakeholders with whom to engage

102-43 Organization's approach to stakeholder engagement

102-44 Key topics and concerns that have been raised through stakeholder engagement

GENERAL STANDARD DISCLOSURES

Mosaic's stakeholders include our employees, local communities, customers, government and regulatory officials, investors, civil society, environmental organizations, suppliers, media, academia and others. We identify our stakeholders as those who are affected by our activities and whose actions have the potential to affect the outcome of our business activities. Our stakeholders help shape our strategic priorities and give meaning to our mission to help the world grow the food it needs.

MOSAIC'S STAKEHOLDERS	WAYS WE ENGAGE	HOW OFTEN	TOPICS OF IMPORTANCE
Academia	Fund or sponsor research, technical and industry meetings, research site visits, in-person visits during growing season, remote meetings	Monthly to Quarterly	Product and process innovations, agronomic research and development, nutrient stewardship, product trials, regulations, and impacts of our business and the industry
Civil Society Organizations	Internet site, meetings with organizations, local community and business leaders, corporate communications	Weekly to Biannually	Nutrient stewardship, habitat conservation, watershed protection and restoration, sustainable agriculture, food security, local community investment and partnerships
Customers	Sales relationships, regular visits, customer service surveys, special events, memberships in industry organizations	Weekly to Biannually	Product innovations, agronomic research and development, nutrient stewardship, certifications, impacts of our business and the industry
Employees, Senior Leadership Team and Board of Directors	Intranet sites, e-screens at plants and mines, town hall meetings, engagement surveys and activities, Annual Meeting, committee meetings	Daily	Environment, health and safety; company, business segment and facility performance; our business and our industry; business conduct and ethics; professional development and training; Mosaic's strategic community
Government and Regulatory Officials	Federal, provincial/state, and local executive and legislative branch advocacy, permitting applications, tours of plants and mines, engagement in state, national and trade association activities	Weekly to Quarterly	Compliance, environmental investment and footprint, industry leadership, voluntary programs
Investors and Financial Markets	Internet site, webcasts and presentations, Securities and Exchange Commission (SEC) reports, analyst meetings, press releases	Daily to Quarterly	Investments, financial results, market data, operational excellence, risks and opportunities, company and shareholder priorities
Joint Ventures and Business Partners	Board meetings, technical and planning sessions, site visits	Daily to Biannually	Project details, environment, health and safety, investments, technologies, product and process knowledge
Labor Unions	Employee and labor relations meetings, contract negotiations	Daily to Annually	Safety, contract interpretation, employee relations issues, engagement, productivity, work environment
Local Communities	Internet site and community microsites, tours of plants and mines, community advisory panels, town halls and/or open houses, media, community organization memberships, economic and charitable partnerships	Daily to Quarterly	Partnerships and community relations, corporate and charitable support, environmental investment, environmental footprint, education, local jobs, economic impact
Media	Press releases, interviews and briefings, internet site and community microsites, SEC reports, tours of plants and mines, town halls and/or open houses	Daily to Quarterly	Company priorities, performance and products, food security, nutrient stewardship, watershed restoration, local economic impact, partnerships and community relations, corporate and charitable support
Retirees	Mailings, HR Connect	As needed to Annually	Plan benefit summaries and changes, investment updates and disclosures
Suppliers	Internet site, supplier survey	Weekly to Biannually	Cost reduction, productivity, quality and innovation opportunities; new technologies; contract preparation; environment, health and safety evaluation; products and services provided; certifications; impacts of products and services

102-41 Employees Covered by Collective Bargaining Agreements

EMPLOYEES COVERED BY COLLECTIVE BARGAINING AGREEMENTS

COUNTRY	UNION EMPLOYEES	NON-UNION EMPLOYEES	PERCENTAGE OF EMPLOYEES COVERED BY COLLECTIVE BARGAINING AGREEMENT
Canada	1,258	947	57%
United States of America	1,957	2,428	45%
Total	3,215	3,375	49%

NOTE: We work closely with unions and our unionized employees at both a national and international level. One hundred percent of our employees in Brazil, China, Paraguay and India are covered by collective work agreements.

Reporting Practice

102-46 Defining report content and Topic Boundaries

102-47 List of material topics

103-1 Topics and Topic Boundaries

As a global, publicly traded company, we are continually exploring what it means to be responsible and accountable to Mosaic's diverse stakeholders. From employees, customers, shareholders and industry partners to trade unions, community organizations, government officials and academics, we seek ongoing dialogue with individuals and representatives of stakeholder organizations that impact—or are impacted by—Mosaic's business activities.

Topics and indicators that reflect Mosaic's significant economic, environmental and social impacts or that would substantively influence the assessments and decisions of stakeholders are deemed by us to be "significant" for sustainability reporting purposes.

Accountability's AA1000 Stakeholder Engagement Standard guided the review process that reflects our company's commitment to more fully inform all stakeholders on matters that influence our business and society.

In addition to analyzing peer sustainability reports, Global Reporting Initiative (GRI) standards and the Mining and Metals sector supplement, as well as other reports and frameworks, our ongoing analysis includes:

- Reviewing Mosaic's public financial reports, sustainability reports, GRI tables, policies and commitments as well as an internally conducted survey of senior management, customers and employees
- Scanning media reports, social media and blogs for issues raised for public concern
- Engaging leaders of local, regional, national and global community organizations
- Comparing sustainability materiality determination practices to peer companies
- Cataloging issues identified by stakeholder surveys, sustainability indexes, principles of the United Nations Global Compact, regulatory and policy trends, industry associations and cross-sector partnerships
- Reviewing marketing research and customer satisfaction survey results
- Analyzing investor insights
- Compiling community perceptions through social media activity and brand awareness surveys

GENERAL STANDARD DISCLOSURES

Significant issues are structured around and summarized in five areas of our sustainability focus: Food, Environment, People, Company and Community. Please see our [2017 State of the Business Report](#) for relevant updates in each of these areas.

Mosaic team members originally evaluated the significance of more than 50 issues based on their relevancy and importance to stakeholders, the likelihood of impact and the connection to Mosaic's business strategies and values. We monitor these issues on an ongoing basis as part of the process described above. Our goals and reporting continue to evolve as we refine our understanding and identify further material issues.

Full disclosures of management approach precede the disclosure of the respective topic. Boundaries for each topic are listed below.

MATERIAL TOPICS

GRI	TOPIC	TOPIC BOUNDARY WITHIN THE ORGANIZATION	TOPIC BOUNDARY OUTSIDE THE ORGANIZATION
GRI 201	Economic Performance	Within Mosaic	Investors; Suppliers and Joint Ventures; Competitors; Government and Regulatory Officials; Civil Society Organizations; Media
GRI 202	Market Presence		Local Communities; Civil Society Organizations
GRI 203	Indirect Economic Impacts		
GRI 204	Procurement Practices		
GRI 205	Anti-corruption		Investors; Suppliers and Joint Ventures; Competitors; Government and Regulatory Officials; Civil Society Organizations; Media
GRI 206	Anti-competitive Behavior		
GRI 301	Materials		Local Communities; Suppliers; Customers; Government and Regulatory Officials; Media
GRI 303	Water		
GRI 304	Biodiversity		
GRI 305	Emissions		
GRI 306	Effluents and Waste		
GRI 307	Environmental Compliance		
GRI 308	Supplier Environmental Compliance		
GRI 401	Employment		Suppliers, Local Communities, Government and Regulatory Officials; Labor Unions; Media
GRI 402	Labor/Management Relations		
GRI 403	Occupational Health and Safety		
GRI 404	Training and Education		
GRI 405	Diversity and Equal Opportunity		
GRI 406	Non-discrimination		
GRI 407	Freedom of Association and Collective Bargaining		
GRI 408	Child Labor		
GRI 409	Forced or Compulsory Labor		
GRI 411	Rights of Indigenous Peoples		
GRI 412	Human Rights Assessment		
GRI 413	Local Communities		
GRI 415	Public Policy		
GRI 416	Customer Health and Safety		
GRI 417	Marketing and Labeling		

102-45 Entities included in the consolidated financial statements**102-48 Restatements of information****102-49 Changes in reporting****102-54 Claims of reporting in accordance with the GRI Standards****102-56 External assurance**

Our 2017 sustainability disclosure details The Mosaic Company's 2017 performance across broad sustainability focus areas of Food, Environment, People, Company and Community. Our report has been prepared in accordance with the GRI Standards: Core option. 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. This report primarily summarizes the activities occurring in the period of calendar year 2017 and, unless otherwise noted, all data is presented on a calendar year (CY) basis. In 2013, Mosaic changed our fiscal year-end to December 31 from May 31. Accordingly, some historical data is presented on a fiscal year (FY) basis. We encourage readers to refer to our [Form 10-K](#) and the remainder of our [2017 State of the Business Report](#) for additional information about Mosaic.

This report covers our global operations, including entities over which Mosaic exercises majority control, including all its operations and departments that have the potential to generate significant impacts. Except for financial and select environmental data, this report does not specifically reflect equity-method investments, including joint ventures. Please see our [Form 10-K](#) (page F-57) for more information about those investments.

A revision was made in the [2017 State of the Business Report](#) to our 2016 Criteria Air and Other Pollutants data. These values now accurately reflect our reported emissions for our Potash and Phosphate operations in North America.

Reporting and transparency have been integral parts of our sustainability journey. In response to evolving stakeholder needs, we have made a few significant changes to our report.

- We moved our full GRI index and Standards report to a PDF for easier navigation. We also aligned our content index to many of the Sustainability Accounting Standards Board (SASB) metrics for the Metals & Mining and Chemicals industries.
- Key 2017 sustainability highlights in the focus areas of Food, Environment, People, Company and Community are available within the pages of Mosaic's 2017 State of the Business Report.

Mosaic commissioned iCompli, a division of BPA Worldwide, to provide independent third-party assurance over the sustainability content within the Mosaic 2017 sustainability disclosure (the "Report," covering activities occurring in the period of calendar year 2017). This engagement has been managed in accordance with AccountAbility's AA1000AS (2008) assurance standard, where the format of the engagement was structured to meet the AA1000AS Type I (Moderate) requirements.

Mosaic authorized Trucost Plc to perform a third-party verification of waste, energy, water withdrawals and greenhouse gas emissions data and calculations of Scope 1, Scope 2 and Scope 3 emissions for 2017. Trucost evaluated Mosaic's data, methodologies and calculations, and provided a statement of assurance to the AA1000AS standard.

Throughout the report, "tonnes" refers to the metric ton unit of measurement equaling approximately 2,204.6 pounds, whereas the occasional reference to "tons" refers to the unit of measurement equaling 2,000 pounds. References to sulfur are in "long tons," which is equal to 2,240 pounds.

Management Approach: Economic Performance

Since forming in 2004, Mosaic has grown to be a global leader in phosphates and potash crop nutrition. We are proud to be a competitive, low-cost producer with strong customer relationships and the financial strength to invest in growth. We've led the industry in developing high-quality premium products that help growers succeed. We are focused on executing against our strategic priorities: developing, engaging and empowering our people; growing and strengthening our business; and creating value for stakeholders. Mosaic's sustainability targets are closely aligned with our operational and financial goals. We respond annually to CDP and use the Global Reporting Initiative (GRI) framework with the Mining and Metals Sector Disclosure to report on our environmental and sustainability performance. This year we've aligned our sustainability disclosure index to many of the Sustainability Accounting Standards Board (SASB) metrics for the Metals & Mining and Chemicals industries.

We believe it is our responsibility to utilize our financial resources, technical expertise and innovative spirit to help the world sustainably grow the food it needs through strategic partnerships with leading organizations.

Our community investments are focused in the areas of food, water and local initiatives.

- **FOOD:** Mosaic is committed to supporting organizations that advance global agricultural development, agricultural research and education, and hunger relief for community members in need. These programs, respectively, include: The Mosaic Villages Project in India; micronutrient deficiency research and mobile soil testing labs; and food drives, food distribution trucks and school backpack programs.
- **WATER:** Mosaic supports organizations that work in watershed restoration, habitat conservation and nutrient stewardship. These programs, respectively, include: shoreline restoration and oyster reef installations; improved land management practices and wildlife protection; and 4R nutrient stewardship, which is best management practices for fertilizer application, minimizing field runoff and improving farmer yields.
- **LOCAL:** Mosaic supports philanthropic or civic partnerships that enrich the long-term strength of communities in which Mosaic has offices and operations. These programs, respectively, include: local schools, health care institutions, museums; special projects and sponsorship of events; and housing and disaster relief.

For more information on our management approach and financial progress, please see our [Form 10-K](#) and the remainder of our [2017 State of the Business Report](#).

We support a variety of formal and informal Mosaic channels through which stakeholders can submit concerns, including [communicating with the Board of Directors](#).

201-1 Direct economic value generated and distributed

ECONOMIC PERFORMANCE (IN MILLIONS)

	2013	2014	2015	2016	2017
Revenue	\$9,021.4	\$9,055.8	\$8,895.3	\$7,162.8	\$7,409.4

OPERATING COSTS (IN MILLIONS)

	2013	2014	2015	2016	2017
Cost of Goods Sold	\$7,006.0	\$7,129.2	\$7,177.4	\$6,352.8	\$6,566.6
Selling, General and Administrative Expenses	\$393.5	\$382.4	\$361.2	\$304.2	\$301.3
Less: Unrealized Gain/Loss on Derivatives	\$(0.4)	\$32.0	\$31.9	\$(70.0)	\$12.4
Less: Depreciation, Depletion and Amortization	\$655.6	\$750.9	\$739.8	\$711.2	\$665.5
*Less: Wages and Benefits	\$927.8	\$1,429.3	\$1,441.5	\$1,358.1	\$1,435.2
Total Operating Costs	\$5,816.5	\$5,299.4	\$5,325.4	\$4,657.7	\$4,754.8
Wages and Benefits	\$927.8	\$1,429.3	\$1,441.5	\$1,358.1	\$1,435.2

*Mosaic Cost of Goods Sold and Selling, General and Administrative expenses from the [Form 10-K](#) include wages and benefits. For the sustainability disclosure, wages and benefits are requested separately, so they are excluded here and added back in as a separate line item directly below.

PAYMENTS TO PROVIDERS OF FUNDS (IN MILLIONS)

	2013	2014	2015	2016	2017
Dividends Paid	\$427.1	\$382.5	\$384.7	\$385.1	\$210.6
Payments for Share Repurchases	\$0.0	\$2,755.3	\$709.5	\$75.0	\$0.0
Interest Paid (Net of Amount Capitalized)	\$6.9	\$121.9	\$126.2	\$124.5	\$155.0
Total Payments to Providers of Funds	\$434.0	\$3,259.7	\$1,220.4	\$584.6	\$365.6
Retained Earnings	\$11,182.1	\$11,168.9	\$11,014.8	\$10,863.4	\$10,631.1

TAX - PAYMENT TO GOVERNMENT (IN MILLIONS)

	2013	2014	2015	2016	2017
United States	\$155.1	\$(5.5)*	\$79.4	\$(45.0)	\$(57.6)
Canada	\$107.6	\$87.9	\$112.8	\$(25.3)	\$(8.7)
Brazil	\$3.0	\$2.7	\$(5.9)	\$(1.7)	\$3.4
Other	\$(0.2)	\$28.1	\$7.0	\$6.6	\$(7.2)
Total Income Taxes Paid	\$265.5	\$113.2	\$193.3	\$(65.4)	\$(70.1)

*2014 United States tax payments decreased due to 2013 overpayments and refunds. 2016 United States tax refunds relate to 2003 and FY2012 overpayments, while 2016 Canada tax refunds relate to 2015 overpayments. 2017 United States tax refunds relate primarily to 2013, 2015 and 2016 overpayments, while 2017 Canada tax refunds relate to 2016 overpayments.

201-1 Direct economic value generated and distributed (continued)**TAX - PAYMENT TO GOVERNMENT (IN MILLIONS)**

	2013	2014	2015	2016	2017
Canadian Resource Taxes and Royalties Expense**	\$235.2	\$195.0	\$281.3	\$121.5	\$142.0
Other non-income taxes***	\$67.9	\$76.3	\$75.6	\$82.0	\$84.3

**Represents tax expense during the period, not cash payments.

***Other non-income taxes include property taxes and a Florida mining tax.

The combined 2017 contributions by The Mosaic Company, The Mosaic Company Foundation and The Mosaic Institute in Brazil provided more than \$12 million of support through companywide philanthropic grant making, the United Way campaign's dollar-for-dollar match, in-kind products and services contributions, and paid employee volunteerism, including pro bono, skills-based technical assistance and functional-specific services. Please see [203-1](#) and [203-2](#) for more information about our contributions. 2017 community investments by geography are as follows:

2017 COMMUNITY INVESTMENTS BY GEOGRAPHY (U.S. DOLLARS)

GEOGRAPHY	INVESTMENT
Brazil	484,836
Canada	2,985,029
Florida	5,856,598
Global Partnerships	353,700
Louisiana	169,517
Minnesota	450,637
New Mexico	291,423
United States	995,141
Villages - Guatemala	450,000
Villages - India	316,848
Administrative/Program	90,269
Total	\$12,443,997

Mosaic uses an online grant application system to receive and evaluate proposals for funding. By accessing the online grant application system, potential grantees are able to review Mosaic's focus areas, grant making guidelines, application deadlines and our non-discrimination policy. Establishing a standardized grant making system with stated guidelines and policies online has provided greater transparency to our partners, shareholders, employees and communities. Through this system, grantees provide reports on their outcomes, enabling Mosaic to evaluate the effectiveness of each grant.

201-2 Financial implications and other risks and opportunities for the organization's activities due to climate change

Mosaic's "Commitment on Climate Change" acknowledges that global climate change creates uncertainty for our business and poses challenges for the health and well-being of the world's populations—ecologically, socially and economically.

The potential financial implications with regard to the physical changes associated with climate change, as well as potential regulatory response changes, are discussed in [Mosaic's 2017 CDP Climate Change Response](#) and in Mosaic's [Form 10-K](#).

201-3 Defined benefit plan obligations and other retirement plans

BENEFIT PLAN OBLIGATION (IN MILLIONS)

	2013	2014	2015	2016	2017
Pension Plan Obligation	\$728.0	\$828.4	\$731.2	\$713.5	\$766.1
Fair Value of Plan Assets	\$736.9	\$812.1	\$726.7	\$715.6	\$793.2

NOTE: Please refer to the discussion of our defined benefit pension plans in our [Form 10-K](#).

UNITED STATES PENSION PLANS

	ASSETS AS OF 12/31/2013	ASSETS AS OF 12/31/2014	ASSETS AS OF 12/31/2015	ASSETS AS OF 12/31/2016	ASSETS AS OF 12/31/2017
Fixed Income	75%	77%	95%	85%	75%
United States Equity Securities	12%	12%	2%	8%	15%
Non-United States Equity Securities	7%	7%	2%	6%	10%
Real Estate	4%	4%	—%	—%	—%
Private Equity	2%	—%	1%	1%	—%
Other	—%	—%	—%	—%	—%
Total	100%	100%	100%	100%	100%

CANADIAN PENSION PLANS

	ASSETS AS OF 12/31/2013	ASSETS AS OF 12/31/2014	ASSETS AS OF 12/31/2015	ASSETS AS OF 12/31/2016	ASSETS AS OF 12/31/2017
Fixed Income	38%	40%	39%	37%	38%
United States Equity Securities	22%	23%	22%	23%	22%
Canadian Equity Securities	21%	20%	20%	23%	20%
Non-United States Equity Securities	14%	14%	15%	14%	15%
Private Equity	2%	1%	1%	1%	1%
Other	3%	2%	3%	2%	4%
Total	100%	100%	100%	100%	100%

INVESTMENT PLAN AND SAVINGS PLAN (IN MILLIONS)

	2013	2014	2015	2016	2017
Attributable Expense	\$35.2	\$51.5	\$55.1	\$51.1	\$54.3

Participation and funding target attainment percentages for our United States and Canadian pension plans as of December 31, 2017, are as follows:

BENEFIT PLAN PARTICIPATION AND TARGET ATTAINMENT (as of December 31, 2017)

LOCATION	PARTICIPANTS	FUNDING ATTAINMENT
United States (Hourly)	3,154	98.4%
United States (Salaried)	2,880	100.2%
Colonsay (Hourly)	628	107.1%
Colonsay (Salaried)	68	102.7%
Esterhazy (Hourly)	1,411	112.9%
Esterhazy (Salaried)	207	108.5%

201-4 Financial assistance received from government

2017 TAX CREDITS AND SUBSIDIES

COUNTRY	TYPE	AMOUNT
Canada	Research and Development Credit	\$7,865,851
United States	Research and Development Credit	\$113,657
United States	Mine Rescue Team Training Credit	\$14,987
United States	Energy Credit (Combined Heat and Power)	\$2,048,058
Brazil	Employee Meal and Leave Subsidies	\$65,386
Brazil	Rouanet Law - Cultural Incentives	\$53,680
Brazil	Research and Development Incentive	\$30,804

NOTE: All figures are reported in United States dollars. As actual 2017 figures were not available at the time of reporting, these figures represent actual 2016 amounts. The Brazil and Canada figures were calculated using an average income statement exchange rate used for financial reporting purposes.

Management Approach: Market Presence, Indirect Economic Impacts and Procurement Practices

At Mosaic, we understand that our business and our communities are indelibly linked. Our operating communities are also our homes—where we live, work and raise children. We strive to be a thoughtful and engaged neighbor, investing carefully and generously as we seek long-term partnerships with organizations that are making a difference.

Mosaic is dedicated to advancing the many ways that our business contributes to the sustainable development of the communities where we operate: investing in communities; hiring employees and contracting vendors from local communities; offering competitive wages and benefits to our workforce; and developing our future workforce.

INVESTING IN COMMUNITIES

The Mosaic Company, The Mosaic Company Foundation and The Mosaic Institute in Brazil partner with industry associations, nonprofit groups and stakeholders focused on food, water and local initiatives. We are especially committed to the strength and prosperity of the communities where we have offices and operations, including North America, South America and Asia. Our financial support is magnified by employee volunteerism and community involvement.

HIRING EMPLOYEES AND CONTRACTING VENDORS FROM LOCAL COMMUNITIES

As a matter of practice, and in accordance with Mosaic's global job posting policies, we will "hire from within wherever possible." In addition, Mosaic initiates and conducts its search for qualified candidates locally, before the search is broadened.

Mosaic's mining and production operations take place in communities of varying size throughout North America. Mosaic does not have a written policy for giving preference to locally-based suppliers, but we do encourage and support local suppliers of all sizes. As a global company, the vendor screening process we have in place ensures that we maintain strict ethics, quality and safety standards, which can be challenging for small companies to meet. In an effort to support more local suppliers, we engage them, build partnerships, and explore opportunities to build capacity. Our [Supplier Code of Conduct and Ethics](#) outlines the standards of business integrity to which we hold ourselves and our suppliers accountable.

OFFERING COMPETITIVE WAGES AND BENEFITS TO OUR WORKFORCE

Our global talent investment philosophy is to provide competitive compensation and benefits, with flexibility to choose programs that best meet our employees' needs.

DEVELOPING OUR FUTURE WORKFORCE

Skilled labor is a key priority in the geographies where we operate. We work with governments and institutions to help train skilled labor to develop the knowledge required to support Mosaic's future workforce.

202-1 Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation

Mosaic offers competitive compensation and benefits in each of the company's significant locations of operation. As shown below in local currency, the standard entry-level wage range is higher than the prevailing local minimum wage for each location presented. For Mosaic, minimum wages are generally not relevant since the majority of entry-level Mosaic positions require a higher level of skills or knowledge than jobs to which the minimum wage rate would apply.

2017 MOSAIC LOCAL MINIMUM WAGE COMPARED TO LOCAL MINIMUM WAGE

SIGNIFICANT OPERATIONS	LOCAL MINIMUM WAGE	MOSAIC ENTRY-LEVEL WAGES*	MOSAIC ENTRY LEVEL WAGE RELATIVE TO LOCAL MINIMUM WAGE
U.S. Range/hr (USD)	\$7.25 – \$9.50	\$15.58 – \$28.55 (hourly) \$11.35 – \$18.08 (salaried)	157%
Canada Range/hr (CAD)	\$10.96	\$29.98 – \$32.78 (hourly) \$15.94 – \$24.04 (salaried)	145%
Brazil Range/hr (BRL)	\$4.50 – \$7.27	\$5.44 – \$12.71	149%
China Range/hr (CNY)	\$9.48 – \$11.49	\$20.70 – \$34.48	218%
India Range/hr (INR)	\$47.75 – \$57.29	\$173.16 – \$287.60	363%
Paraguay Range/hr (PGY)	\$8,291.16	\$9,009.61 - \$9,835.05	114%

*Mosaic does not set starting wages based on gender.

202-2 Proportion of senior management hired from the local community at significant locations of operation

As a matter of practice, we will “hire from within wherever possible.” For senior leader roles, if no internal candidates are identified, a search will be conducted externally to find the best candidate for the leader role. The hire may or may not come from one of the communities where we have a local presence. These candidates are also supported with relocation assistance.

In 2017 our operations hired 13 senior leaders—eight of whom were hired externally and five hired internally. Six of the eight external hires came from local communities.

For the purpose of this indicator, “significant locations of operation” refers to United States, Canada and Brazil. “Senior leader” is defined as those individuals who are responsible for a business unit, corporate function, business unit function, country or operations site. These employees represent less than three percent of our total workforce.

203-1 Development and impact of investments in infrastructure and services supported

Livable communities require stable infrastructure and connectivity. As part of our community investment focus on local communities, Mosaic responds to community needs for welcoming public spaces, hospitals and emergency services, and entertainment and sports facilities that bring additional revenue to local economies. Our investments in this category in 2017 totaled approximately \$5 million. Here are examples of some of our recent community investments in infrastructure.

- In Central Florida, The Mosaic Company Foundation supported Arcadia Rodeo's \$6 million capital campaign for a new multipurpose complex with a \$3 million investment in 2014. The 8,000 seat Mosaic Arena, which opened in early 2018, will serve as a community gathering place and promote new economic opportunities for local businesses and civic organizations.
- In 2017 we made an in-kind donation of 335 acres of formerly mined land in Central Florida to Polk County Parks and Recreation. Valued at over \$500,000, the land will be used by local residents as a park for all terrain vehicles.
- In 2017 Mosaic announced continued funding for the STARS Air Ambulance in Saskatchewan—an organization that provides emergency transport for critically ill and injured people in rural southern Saskatchewan—where travel time and remoteness create challenges for emergency responders. Mosaic's initial contribution of \$5.5 million in 2011 helped establish a Regina base and purchase the helicopter. STARS flew more than 1,000 missions in western Canada in 2017.
- Mosaic's Krishi Jyoti project in India aims to improve livelihoods in villages in rural India by enhancing farm productivity. In partnership with the project's implementing partner, The Sehgal Foundation, six check dams have been constructed since 2008, increasing water storage capacity to 30 million gallons. The project also promotes education among children in these remote villages by providing them a healthy and safe school environment. Krishi Jyoti has supported the renovation of 21 government schools in the project villages, benefiting nearly 5,000 children.
- Mosaic committed \$75,000 plus engineering and design analysis costs to build a new arbor for the Cowessess First Nation in Saskatchewan. The arbor, which replaced a previous one that had been damaged by a wind storm, celebrates the unique culture of the First Nation and will be used for community gatherings and the annual pow-wow—a celebration of music, song, food, dance and storytelling.
- The Mosaic Institute in Brazil recognizes the importance of public spaces and social centers to a community's wellbeing and invests in them locally. It renovated its first school in Candeias, State of Bahia, in 2013. In 2015, it renovated two public schools in Sorriso and Rondonópolis, State of Mato Grosso do Sul; in 2016 it renovated the schools in Paraguay and Rondonópolis; and in 2017, it renovated schools in Rondonópolis and Uberaba in the State of Minas Gerais.

In 2017, combined contributions by The Mosaic Company, The Mosaic Company Foundation and The Mosaic Institute in Brazil through philanthropic funding, employee engagement and in-kind donations totaled more than \$12 million.

View our global and local community investments on [Mosaic's Giving Map](#).

203-2 Significant indirect economic impacts, including the extent of impacts

Mosaic has diverse and varied indirect economic effects on communities across the world. Due to the complex nature of the business and philanthropic activities in which Mosaic engages, we do not attempt to estimate our full indirect economic impact by using a measurement of currency. Here are some of the ways Mosaic contributes indirectly to economies around the globe:

- Farmers who produce enough food to support a profitable business bring economic benefits through their hiring and spending practices. Likewise, the dealers who distribute our fertilizers and the vendors who support our operations are meaningful contributors to the economic vitality of the rural and regional communities where they operate.
- The Mosaic Villages Project works with smallholder farmers in India to help break the cycle of poverty, moving farmers from survival to surplus. Agronomic training is essential for these farmers, as they suffer from depleted soils and lack the land-management knowledge necessary to farm productively and sustainably. Mosaic's agronomists provide expertise to teach these farmers modern methods that increase yields and protect the local ecosystem. Additionally, participants in The Mosaic Villages Project in India receive no-interest loans to buy fertilizer at planting, and repay the loans through the sale of surplus yield at harvest. Fertilizer acts as an injection of capital to the region, helping farmers break the cycle of poverty that has gripped these developing regions of the world.
- In Brazil, The Mosaic Transforms program, in collaboration with municipal Departments of Social Welfare and other institutions, supports vocational training to expand participants' employment opportunities in Paranaguá, Rondonópolis and Sorriso. In 2017, the program continued in Rondonópolis and was expanded to Catalão, Goiás.
- Many of Mosaic's community investments are focused on supporting hunger relief in communities and providing access to emergency food systems. Studies show that children who have sustained hunger have reduced abilities and capacity to learn in school. Access to regular food improves educational outcomes. Through work with the United Way and other local charities, Mosaic's community investments help families achieve greater economic independence and improve educational outcomes for children.
- A 2015 economic study by The Fertilizer Institute estimates that the United States fertilizer industry contributes \$162 billion to the United States economy. The study estimates that fertilizer producers, wholesalers and retailers, and the businesses that serve them, support 519,900 United States jobs with total annual compensation of \$36 billion.
- Additionally, many of Mosaic's partnerships with community organizations continue to support positive healthcare, education, housing and recreational opportunities for our neighbors. Please see [203-1](#) and [Mosaic's Giving Map](#) for more information.

204-1 Proportion of spending on local suppliers at significant locations of information

We report on purchases in the United States, Canada and Brazil. For the purposes of this indicator, operations in these areas are considered "significant" since they are in key geographies where most of our supply chain activities take place.

LOCAL SUPPLY CHAIN (PERCENT)

OPERATIONAL LOCATIONS	2017
Phosphate (United States Only)	80.3
Potash (Canada and United States)	61.2
International (Brazil)	99

NOTE: Excludes governmental, raw materials, clubs and organizations, employee-related and freight and warehouse expenditures. Includes as locals in the Phosphates segment all vendors with addresses in Louisiana and Florida, and in the Potash segment all vendors with addresses in New Mexico, Saskatchewan and Manitoba. Brazil totals include all vendors whose addresses are within the country.

Management Approach: Anti-corruption and Anti-competitive Behavior

Mosaic operates in a regulated industry and in areas throughout the world with varying degrees of perceived corruption. Mosaic also has routine interactions with foreign government officials and agencies related to obtaining licenses and approvals, customs, land use and other matters. The risk of corrupt practices exists in the countries where we operate as government officials and agencies are inherently involved in the production, sale, and distribution of our fertilizer products through the related laws and regulations governing these activities.

Mosaic must comply with all applicable laws of the United States, and all other countries in which we do business, that are designed to prevent bribery and corruption. Our [Code of Business Conduct and Ethics](#) demands strict compliance from our employees and requires any employees who have been assigned a company computer user ID—which is more than 3,000 employees—to complete online code of conduct training and certify compliance with the code annually.

Mosaic also maintains a 24-hour independently administered, confidential and anonymous incident reporting hotline for all Mosaic employees. In addition, our company conducts a robust risk assessment to identify risks related to the U.S. Foreign Corrupt Practices Act (FCPA). A robust fraud risk assessment is also completed in the Sarbanes-Oxley compliance efforts.

We recognize the significance of the FCPA and have established a [Worldwide Anti-corruption Policy](#). We conduct periodic FCPA audits of selected geographic locations and respective individuals-including but not limited to: country managers, sales representatives, accounting/finance personnel and supply chain-whose job responsibilities require a keen awareness of and compliance with the FCPA.

205-1 Total number and percentage of operations assessed for risks related to corruption and the significant risks identified

The total number of business segments analyzed for risks related to corruption in 2017: three (Potash, Phosphates and International Distribution). The percentage of business segments analyzed for risks related to corruption in 2017: 100 percent (all three business segments). We also review select joint ventures including Miski Mayo in Peru and the Wa'ad al Shamal Phosphates Company in Saudi Arabia.

We do not have production facilities in any of the 20 most corrupt countries in the world, as defined by Transparency International's Corruption Perception Index.

205-2 Communication and training on anti-corruption policies and procedures

Mosaic requires all salaried employees (which includes all management employees) to complete the online Foreign Corrupt Practices Act (FCPA) training. In addition to the online training, instructor-led training is also provided to certain employees based on their location and job responsibilities. As part of our Code of Business Conduct and Ethics certification process, which is required annually of all employees who have been assigned a company computer user ID, employees are specifically asked to certify as to their compliance with the FCPA in the past year.

Most recently, the 2017 Code certification, completed in early 2018, had a 100 percent completion rate. View [404-1](#) for more information.

Board members receive the Code of Conduct training and are recertified annually, most recently with a 100 percent completion rate in 2018.

In regards to business partners, Mosaic's service agreements generally require suppliers to agree to follow the Mosaic Code of Business Conduct and Ethics, a section of which addresses Preventing Bribery and Corruption. The code states that suppliers must adhere to the same level as required by Mosaic employees. Mosaic's purchasing policy requires suppliers to acknowledge Mosaic's Code of Business Conduct and Ethics biannually in writing.

Mosaic's [Worldwide Anti-Corruption Policy](#) and [Code of Business Conduct and Ethics](#) are both publicly available on our [website](#).

205-3 Confirmed incidents of corruption and actions taken

As of the date of this report, Mosaic had not identified any material violations of our anti-corruption policy and had not dismissed or disciplined any employee for corruption, nor declined to renew a contract with a business partner due to violations related to corruption.

206-1 Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes

In 2017, there were no legal actions for anti-competitive behavior, anti-trust or monopoly practices.

ENVIRONMENT

Management Approach: Materials

We use various mineral resources and materials to make our crop nutrition products. For example, limestone is used to produce our animal feed products and for water treatment. Sulfur, a byproduct of crude oil and natural gas de-sulfurization, is used to produce steam, electricity and sulfuric acid, which is used to produce phosphoric acid. We use byproduct heat from sulfuric acid production to generate steam that we use in our operations and to generate electricity. Sulfur is also used in the production of our MicroEssentials® product line. Various micronutrients, including boron, zinc, sulfur and cupric oxide, are key ingredients in our MicroEssentials product line. Ammonia is used in our finished products, diammonium phosphate (DAP), monoammonium phosphate (MAP) and MicroEssentials, and to neutralize the pH of the stack gases at our Esterhazy potash mine.

In line with Mosaic's [principle](#) of responsibility, we strive to be good stewards of natural resources, using them as efficiently as possible.

Mosaic products, predominantly fertilizer and animal feed ingredients, are used in agricultural operations. To the extent possible, bulk transport is used to minimize the need for extensive packaging—and therefore packaging waste—throughout the supply chain. Mosaic supports and helps promote The Fertilizer Institute's (TFI) Bulk Blend Workshops and Manual, which eliminates the need for packaging of major raw materials or the final product.

301-1 Materials used by weight or volume

MATERIALS MINED OR CONSUMED (MILLION TONNES)

MATERIALS	2017
Ammonia	1.5
Limestone	0.2
Phosphate Rock	15.0
Potash Ore	29.9
Sulfur (Long Tons)	4.1

NOTE: Ammonia purchases depicted in the table above are for production of phosphate crop nutrients. Sulfur value represents long tons purchased in 2017.

301-2 Percentage of materials used that are recycled input materials

Sulfur is the most significant recycled raw material in our manufacturing processes. The sulfur used is recovered from crude oil and natural gas processing and then recycled in our plant operations to produce sulfuric acid, which we use to make phosphoric acid, steam and electricity. Our use of this product prevents an excess of sulfur that otherwise could be disposed of in landfills. In 2017, sulfur made up approximately 8 percent by weight of our total raw materials.

301-3 Percentage of products sold and their packaging materials that are reclaimed by category

Mosaic products, predominantly fertilizer and animal feed ingredients, are used in agricultural operations. To the extent possible, bulk transport is used to minimize the need for extensive packaging throughout the supply chain. Mosaic supports and helps promote The Fertilizer Institute's (TFI) Bulk Blend Workshops and Manual, which eliminates the need for packaging of major raw materials or the final product. In 2017, approximately 74 percent of the sales volumes (tonnes) from our business were sold in bulk.

Management Approach: Water, Energy, Emissions, Biodiversity, Effluents and Waste, Environmental Compliance, and Supplier Environmental Assessment

Respect for the natural environment is essential to the sustainability of our business. From our potash mines in Saskatchewan to our Florida phosphate operations and distribution and blending facilities in Brazil, we strive to optimize our production processes and reduce our environmental impact.

Our management of water, energy and greenhouse gas emissions and waste is guided by our [Environmental, Health & Safety Policy](#) and commitment to the United Nations Global Compact. Our [sustainability targets](#), progress toward which we report annually, help focus our efforts and track our progress on these key issues.

We support a variety of formal and informal Mosaic channels through which stakeholders can submit concerns. Beyond outreach directly to Mosaic, the public has an opportunity to comment on state or federal rules and permits through Public Notice and formal comment periods. Please see [413-1](#) for more information.

Our management approach for the topic of Environmental Compliance is addressed in the sections below.

WATER

We recognize water is a critical natural resource that is essential to the sustainability of our operations, as well as the communities and ecosystems in which we operate. In our direct operations, we consume significant volumes of water in the mining and production of our phosphate and potash crop nutrient products. The primary sources of water for our operations are surface water; rainwater, used as alternative water supply; and groundwater. Our facilities monitor and evaluate water use to confirm it is minimized, and water recycling and reuse are maximized. Secondary sources of water include water supplied by local authorities and partially treated industrial and domestic reclaimed water, also supplied by local authorities. Surface water withdrawals include once-through cooling water used by our Louisiana operations.

Discharges from Mosaic's Florida and Louisiana phosphate operations to downstream water bodies are highly regulated through federal National Pollutant Discharge Elimination System (permits that are administered by the Florida Department of Environmental Protection (FDEP) and Louisiana Department of Environmental Quality (LDEQ). Discharges are monitored, sampled and analyzed regularly by Mosaic, with reports provided to regulatory agencies to demonstrate compliance with permit limitations. The limitations are based on the water quality standards that protect the designated uses of the receiving water body. Mosaic's Saskatchewan facilities maintain a "zero-discharge" approach. When the discharge of freshwater is warranted following a high precipitation event, it is approved in advance by multiple regulatory agencies.

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 impact water quality. By preserving the quality of water, minimizing our own water use, and supporting and promoting agricultural practices that achieve the crop yield benefits of fertilizer while reducing nutrient losses to the environment, we are reducing the environmental impact of fertilizers on the global food supply.

Broadly, our water stewardship efforts are focused on:

- Preserving and maintaining the quality of the water we use in the communities where we operate;
- Promoting the 4R Nutrient Stewardship framework to minimize the impact of crop nutrients on waterways;
- Maximizing water recycling and reuse;
- Monitoring and evaluating our water use and driving facility-level conservation efforts;
- Developing partnerships with industry and government to use alternative water sources;
- Reporting performance and communicating with stakeholders

ENERGY AND EMISSIONS

Fertilizer production is an energy-intensive activity. We use energy and generate direct and indirect greenhouse gas emissions (GHGs) in the mining, production, distribution and use of our phosphate and potash crop nutrient products. Since our company's formation in 2004, we have invested in initiatives aimed at reducing energy use and emissions—efforts that have resulted in operating cost savings and improvements in environmental performance. By improving the efficiency of our operations and promoting sustainable agricultural practices, we are adapting to the potential threats of climate change and reducing the environmental impact of fertilizers on the global food supply.

Our approach to managing energy and greenhouse gas emissions includes:

- Emphasizing operating efficiency
- Investing in energy-efficient technologies and evaluating alternative energy sources, including generating virtually GHG-free electricity at our Phosphates concentrates through a process called cogeneration
- Leveraging our agronomic expertise to promote efficiencies in agricultural systems, which have the potential to enhance customers' productivity
- Advocating for balanced clean energy policy that encourages the generation and consumption of existing, low-cost resources, such as waste heat recovery
- Reporting our energy and GHG performance and communicating with stakeholders

BIODIVERSITY

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 and Canada, 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 detailed planning and approval process protects water, air, ecology, threatened and endangered species, transportation, safety and other environmental, health, and public welfare considerations.

We work with multiple parties to evaluate ecological resource preservation opportunities and to avoid and minimize any harm to state and federally protected wildlife species found on mine properties.

Phosphate mining represents a temporary disturbance of ecological resource. Once mining is complete, we conduct acre-for-acre [reclamation](#) and return mined lands to productive uses for wildlife and people. To ensure biodiversity, Mosaic may introduce certain species into reclaimed lands, such as the gopher tortoise, that may have previously resided on the parcel but moved prior to mining. All introductions and relocations of protected species are directed by federal and state requirements and guidelines.

Potash mining operations in Canada and the United States use shaft and solution mining techniques. Because of the limited footprint on surface features, such as surface infrastructure and tailings management areas, impacts to wildlife and habitats are also highly localized and relatively small in scale. Prior to surface development, Mosaic's Saskatchewan facilities consult multiple stakeholders as part of best management practices that are protective of wildlife and habitats.

Phosphates and potash operations' interaction with wildlife in the United States is regulated by state and federal agencies such as the Florida Fish and Wildlife Conservation Commission and the United States Fish and Wildlife Service. These agencies maintain lists of protected species for which Mosaic develops species-specific habitat management plans to ensure the proper protection measures are in place. Protection of these species is also reviewed and approved through the Federal, State and local permitting processes for our Florida phosphate mines.

In our potash facilities located in Saskatchewan, Canada, our approach to evaluating potential impacts to wildlife includes biological assessments for projects located in new or expanded footprint areas. Since potash mining is underground, such impacts are rare once a facility is in operation. 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 Saskatchewan Ministry of Environment. Biological assessments for all expansion areas at the potash facilities follow this approach.

We work closely with regulators to not only address compliance with all applicable regulations and agency-approved management plans, but to fund or conduct research that promotes the goal of wildlife and habitat conservation.

WASTE

Large quantities of byproduct materials generated as a result of mining and processing of potash and phosphate—referred to in this report as “mining wastes”—are managed during the operation of a facility, and upon its closure. We apply industry best practices to manage and reuse overburden, tailings and byproducts associated with our mining and production practices. Potash tailings, consisting primarily of salt and clay, are stored in tailings management areas. A portion of the excess salt generated from potash mining is processed and then used for commercial purposes, including road salt, water softener salt, and use in food grade products and industrial uses. Phosphate clay residuals from mining are deposited in clay settling areas (CSAs) located within the approved mine boundaries. These CSAs are eventually dewatered and reclaimed. Overburden and sand tailings produced at our phosphate mines are used in reclamation and mitigation conducted at the mines. Wet phosphogypsum, a byproduct of our phosphate manufacturing process, is managed in permitted phosphogypsum management systems (“gypstacks”). We store the process water that separates from phosphogypsum during the dewatering process in gypstacks. We are subject to extensive regulation under federal, state and local standards related to these materials.

Certain solid wastes generated by our phosphates operations are subject to regulation under the Resource Conservation and Recovery Act (RCRA) and related state laws. The Environmental Protection Agency (EPA) rules exempt “extraction” and “beneficiation” wastes, as well as 20 specified “mineral processing” wastes, from the hazardous waste management requirements of RCRA. Phosphogypsum and process wastewater nonetheless still are subject to extensive regulation.

Mosaic’s operations generate a variety of nonhazardous solid wastes, including domestic refuse, construction and demolition debris, and waste lubricants. Our waste management program provides assurance that all of our locations have a process in place to minimize waste generation and that waste management practices do not adversely affect the environment or health and safety of employees and the public.

We endeavor to choose on-site process chemicals that are the least hazardous, thereby seeking to lower risk to occupational health and safety and minimizing waste management implications. Mosaic facilities generate hazardous waste during production and maintenance operations. The types of hazardous waste generated at Mosaic’s United States facilities typically include spent cleaning solvents, paint-related wastes and some spent laboratory chemicals. At concentrate facilities, wastes generated during production and maintenance operations include waste that is characteristically hazardous for corrosivity or toxicity (e.g., low pH or metals content). Each location has an appropriate hazardous waste management system to ensure that the waste is properly and safely disposed. No hazardous wastes are shipped internationally for disposal.

We continue to improve our comprehensive waste management strategy, which complies with federal, state and local requirements and aligns to the Mosaic environmental health and safety management system.

SUPPLIER ENVIRONMENTAL ASSESSMENT

Mosaic’s success is rooted in our commitment to high quality products and supported by strong supplier relationships. We foster supplier relationships based on trust, fairness and mutual respect. We hold our suppliers, their employees and subcontractors to the same high standards of business integrity and behavior to which we hold ourselves. Our Supplier Code of Conduct outlines the principles that we consider when deciding on competing suppliers, including safety and environmental stewardship.

303-1 Total water withdrawal by source

GLOBAL WATER WITHDRAWALS (,000m3)

	2013	2014	2015	2016	2017
Groundwater	67,277	64,380	68,270	65,085	78,846
Municipal	133	781	730	914	1,050
Reclaimed Water	1,167	3,429	7,515	9,247	9,249
Surface Water	250,427	240,780	224,168	233,512	232,393
Total	319,004	309,370	300,683	308,758	321,721

Note: Due to a data error discovered following the close of our third-party audit by Trucost, the groundwater data in this table differs from the figures listed on our assurance statement by approximately 1%. Surface water figures include once-through cooling water. Approximately 34 percent of Phosphates business segment surface water withdrawals are used for once-through cooling. The increase in use of reclaimed water in 2014 was primarily due to our acquisition of the Florida Phosphate assets of CF Industries, Inc.

In alignment with our [Sustainability Targets](#), we have modified our water intensity reporting to reflect a freshwater intensity measurement. In setting a water target, our intent is to drive water efficiency improvements across our business and to increase the use of alternative sources. Mosaic's freshwater withdrawals per tonne of dry product crop nutrient and animal feed production are as shown below:

FRESHWATER INTENSITY (m3/TONNE)

	2013	2014	2015	2016	2017
Mosaic	5.07	4.59	4.86	4.76	4.90

For withdrawals and total intensity broken down by business segment, please see our [Environment Metrics Supplement](#).

303-2 Water sources significantly affected by withdrawal of water

Mosaic's Central Florida fertilizer production facilities operate using recycled or reused water when possible. We use captured rainfall as an "alternative water supply." Groundwater use is heavily regulated and is used by Mosaic to supplement captured rainfall. Local regulations promote the use of available alternative water supplies, such as reclaimed water from municipalities, before groundwater use. Mosaic Florida sites received reclaimed water from six municipal waste water treatment plants in 2017 at an average rate of 6.6 million gallons per day (MGD).

Mosaic Florida Phosphates operations do not withdraw water from nationally- or internationally-protected surface water sources. Mosaic's Florida operations have one surface water withdrawal point from a roughly 800 acre area of unreclaimed mine cuts, mined prior to the 1975 adoption of mandatory reclamation rules. This withdrawal is affiliated with the South Pierce facility. In 2017, this withdrawal averaged about 235,000 gallons per day. In addition, Mosaic has two withdrawal points from springs: Lithia Springs and Buckhorn Springs. This water is used at Mosaic's Riverview facility. In 2017, an average of 2.7 MGD was pumped from these spring water sources, representing less than 8 percent of the annual average spring flow for Lithia Springs, and less than 2 percent for Buckhorn Springs. The State of Florida has over 700 springs, 30 of which have been designated as Outstanding Florida springs and are afforded extra protection. Neither Lithia nor Buckhorn Springs are on the Outstanding Florida spring list, however, Lithia Springs is a valuable recreational asset to the local community. Mosaic and its predecessors have leased Lithia Springs as a 160 acre recreational park to Hillsborough County since 1957.

In the Potash segment, water use, including source and allocated volumes, are subject to site-specific regulations and permits. Water used in the operations process is recycled or reused, when possible. Our Saskatchewan potash operations withdraw from provincially-regulated surface water and groundwater sources. Many of these sources also provide drinking water for nearby communities, and the surface water sources, including Cutarm Creek, Buffalo Pound Lake and Zelma Reservoir, are also used for recreational purposes. None of these sources are designated as national or international conservation areas.

Please see [303-1](#) and [303-3](#) for additional context.

303-3 Total volume of water recycled and reused

Figures are based on total water used by facility, less freshwater withdrawals.

RECYCLE AND REUSE VOLUME (,000m³)

BUSINESS SEGMENT	RECYCLE AND REUSE VOLUME
Phosphates	1,139,459
Potash	166,885

NOTE: Carlsbad, N.M., South Pierce, Fla., and Faustina and Uncle Sam, La., are not included in respective business segment calculations. Belle Plaine is a solution mine and therefore, water use and methodology for recycle/reuse rate differs from shaft mining operations. However, recycled volumes from that facility are included in the totals for Potash. Mosaic operations capture rainfall, a portion of which is impounded and used in the various production processes, with some discharged through permitted outfalls at Phosphates facilities.

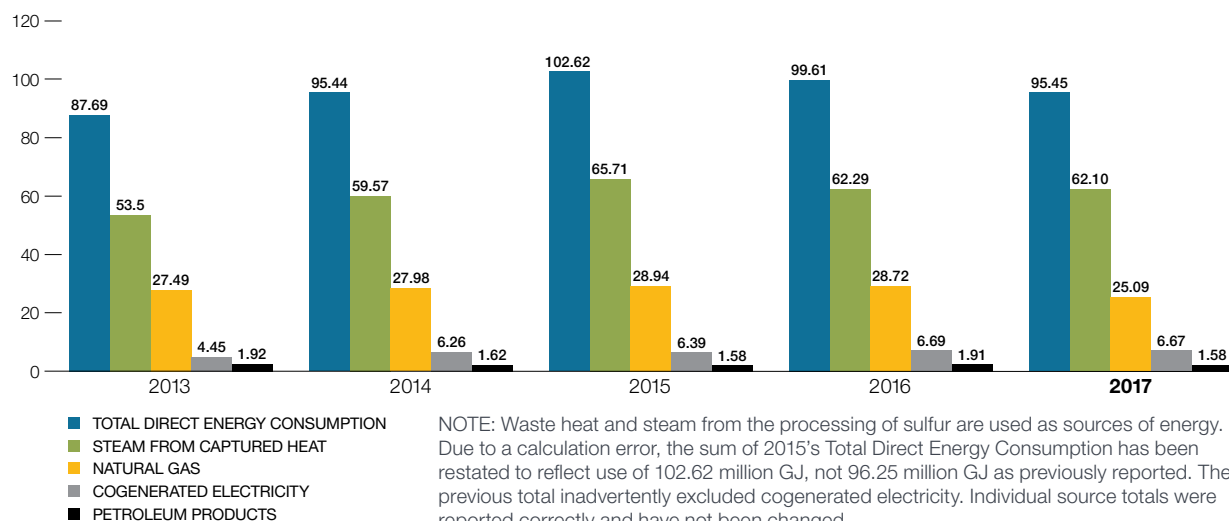
302-1 Energy consumption within the organization

Mosaic's worldwide total direct energy consumption in 2017 was 95.45 million gigajoules (GJ).

ENERGY CONSUMPTION BY SOURCE

Approximately 91.4 percent of Mosaic's worldwide total direct energy consumption in 2017 was from two sources: waste heat from sulfuric acid production and natural gas. The remaining portion was made up of petroleum products and propane.

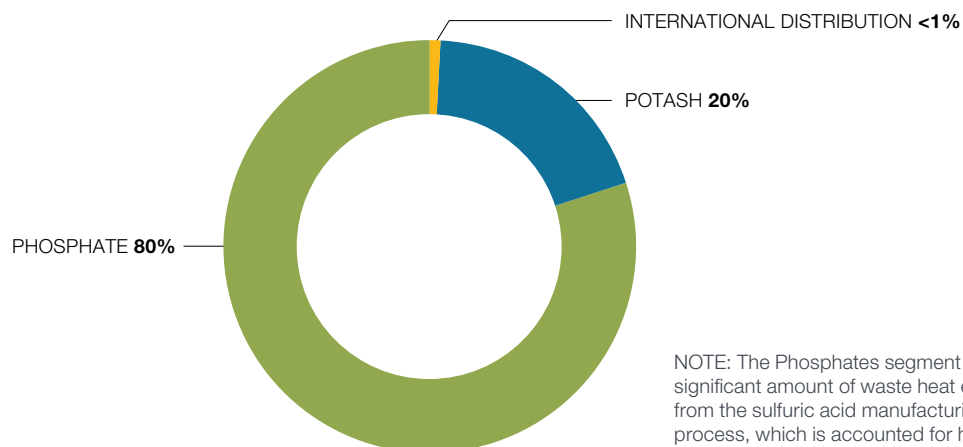
TOTAL DIRECT ENERGY CONSUMPTION BY SOURCE (MILLION GJ)



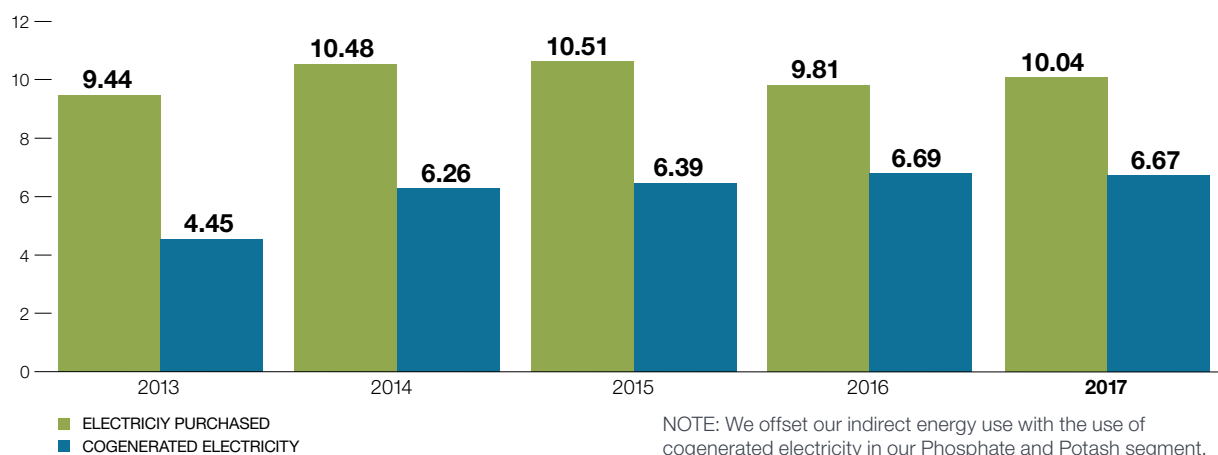
In 2017, our phosphates operations used a portion of steam energy from the sulfuric acid manufacturing process to produce 6.3 million GJ of electricity through a process called cogeneration, approximately 88 percent, or 5.57 million GJ, of which was used internally. We consider the waste heat from sulfuric acid production to be a direct primary energy source for our operations. We exported approximately 720,000 GJ of power to the local utility grid in Florida in 2017.

Mosaic looks for opportunities to improve the efficiency and expand the electricity output of our cogeneration assets. In 2016, Mosaic brought another turbo generator online at our Uncle Sam facility that added approximately 15 megawatts of low-greenhouse gas (GHG) electrical generation capacity. Mosaic could have additional opportunities for harnessing emissions-free power under a more supportive regulatory construct in the United States. We advocate for a balanced renewable energy policy that incentivizes and expands the generation and consumption of existing, low-cost renewables, such as waste heat recovery, and promotes fairer pricing for third-party renewable producers when selling power back to the electrical grid.

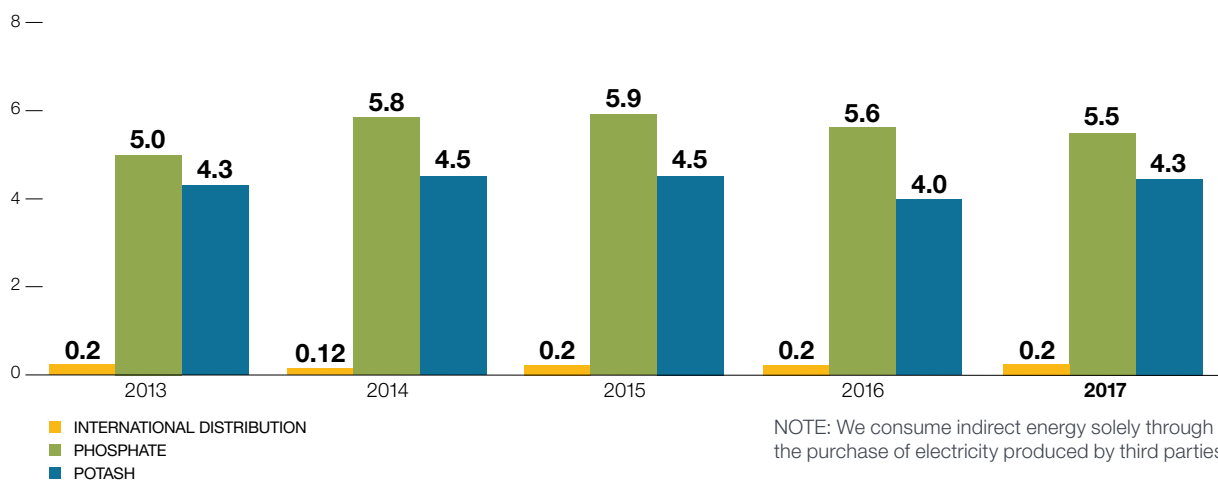
DIRECT ENERGY CONSUMPTION BY BUSINESS SEGMENT (%)



INDIRECT ENERGY CONSUMPTION BY PRIMARY ENERGY SOURCE (MILLION GJ)



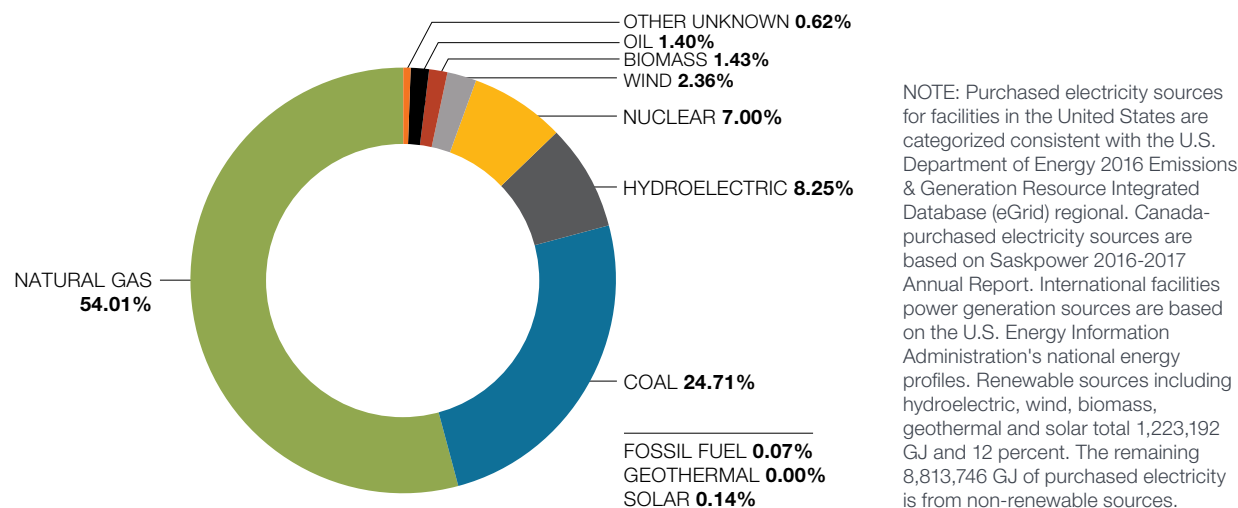
INDIRECT ENERGY CONSUMPTION BY BUSINESS SEGMENT (MILLION GJ)



INDIRECT ENERGY CONSUMPTION BY FUEL SOURCE

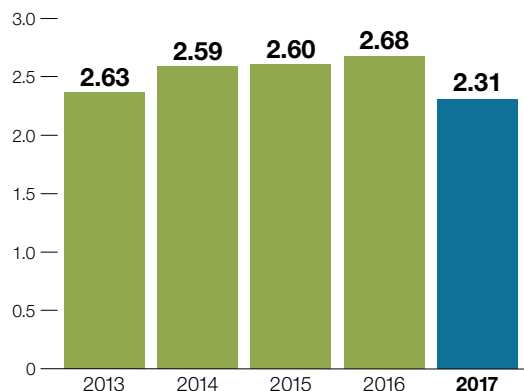
Approximately 12 percent of Mosaic's worldwide indirect energy consumption is from renewable sources, including hydroelectric, biomass sources and wind power.

INDIRECT ENERGY CONSUMPTION BY GENERATION SOURCE (PERCENT)



302-3 Energy Intensity

TOTAL ENERGY PER TONNE FINISHED PRODUCT (GJ/FINISHED PRODUCT TONNES)



NOTE: Total energy includes electricity, natural gas, petroleum and energy from waste heat consumed by Mosaic operations including mines, manufacturing plants, distribution sites, offices, agricultural operations and our Streamsong Resort. In alignment with our sustainability targets and progress tracking, steam is excluded as a source of energy. Accordingly, prior years' energy per tonne of finished product have been restated. Energy consumed in sinking our Esterhazy K3 shaft mine and the operation of our Streamsong Resort are included since 2012 only.

302-4 Reduction in energy consumption

Our energy improvement and sustainability process are part of a broader strategic business plan designed to help Mosaic meet or exceed efficiency, production and profitability requirements. This plan includes strategies for lowering purchased energy consumption through more efficient processes and maximizing use of cogenerated energy.

We also emphasize energy efficiency in our office facilities. Mosaic's Florida headquarters in FishHawk maintains its ENERGY STAR certification. Mosaic's leased Regina, Canada, offices were built to Leadership in Energy & Environmental Design (LEED) standards and included the purchase of interior design elements, furniture and products, as well as other energy efficiencies associated with LEED. The Regina offices were LEED certified in 2017. Similarly, Mosaic's Colonsay mill dry building in Saskatchewan was designed and constructed according to LEED standards. The LEED certification process for this building is underway.

We estimate savings of approximately 400,000 GJ due to conservation and efficiency improvement projects that were executed in 2017, including energy efficient lights and solar installations, equipment upgrades, process improvements, and increased internal use of cogenerated energy.

302-5 Reductions in energy requirements of products and services

Innovation is one of Mosaic's guiding principles. It influences our long-term business strategy and our companywide efforts to reduce energy use and GHG emissions. Through process and product innovation, we're driving greater value for customers and stakeholders.

In addition to developing products and services that enhance customers' productivity and positively impact their energy efficiency, Mosaic maintains active partnerships with industry-leading research centers, targeting agriculture efficiency and productivity improvements. In 2017, we conducted 410 small plot trials in Argentina, Australia, Brazil, Chile, China, Canada, India, Northern Latin America (Mexico to Peru) and the United States.

In 2017, energy efficient or renewable energy-based initiatives resulted in almost 300,000 GJ of energy savings.

305-1 Direct greenhouse gas (GHG) emissions (Scope 1)

305-2 Indirect GHG emissions (Scope 2)

WORLDWIDE GHG EMISSIONS (MILLION TONNES CO₂e)

BUSINESS SEGMENT/EMISSION TYPE	2013	2014	2015	2016	2017
Phosphates	2.54	2.87	2.83	2.69	2.30
Direct Emissions	1.80	1.91	1.97	1.92	1.50
Indirect Emissions	0.73	0.96	0.86	0.76	0.81
Potash	1.80	1.80	1.90	1.80	1.81
Direct Emissions	0.93	0.95	0.95	0.97	0.90
Indirect Emissions	0.87	0.85	0.95	0.83	0.91
International Distribution	0.07	0.06	0.05	0.07	0.05
Direct Emissions	0.06	0.04	0.04	0.05	0.03
Indirect Emissions	0.01	0.01	0.02	0.01	0.01
Total	4.41	4.73	4.78	4.56	4.17

NOTE: Direct emissions include Mosaic's consumption of natural gas, diesel, other fuels, process related activities, water treatment and refrigerants. Indirect emissions include electricity purchased from third-party utilities. Mosaic uses guidance from the CDP for calculating and reporting carbon dioxide equivalence (CO₂e). Subtotals may not always add up to totals due to rounding. Please see Mosaic's [CDP Climate Change response](#) for more information on our GHG emissions performance.

305-3 Other indirect GHG emissions (Scope 3)

OTHER INDIRECT GHG EMISSIONS (MILLION TONNES CO₂e)

BUSINESS SEGMENT/EMISSION TYPE	2013	2014	2015	2016	2017
Ammonia Purchases	2.12	2.20	2.31	2.63	2.14
Truck Transport (Florida)	—	0.01	0.03	0.04	0.04
Rail Transport (Florida and Canada)	0.01	0.01	0.01	0.03	0.06
Business Travel	5,140	4,652	4,328	2,777	2,873
Marine Transport	—	—	0.20	0.25	0.48
Total	2.14	2.23	2.44	2.95	2.73

NOTE: Business travel presented here in MTN CO₂e. Ammonia purchases depicted in the table above are for production of phosphate crop nutrients. Emission factor for purchased ammonia was revised for 2013 and prior years to align with IPCC 2013 guidance for ammonia production with modern, natural gas ammonia plants. In 2014 we accounted for emissions totals from one of our trucking partners, and in 2016, we accounted for emissions from two trucking partners. These figures, which represent a portion of our total trucking emissions, are not available prior to 2013. The increase in rail transport emissions is due to expanding our reporting boundary and collecting data from an additional rail vendor in Canada. Information differs slightly from third party assurance statement due to a late correction from our rail vendor. Emissions associated with product use are addressed as part of our product stewardship programs. Please see our [2017 CDP Climate Change response](#) for more information.

305-4 GHG emissions intensity

DIRECT AND INDIRECT GHG EMISSIONS INTENSITY (METRIC TONNE CO₂e/PER TONNE OF FINISHED PRODUCT)

	2013	2014	2015	2016	2017
Mosaic	0.27	0.26	0.26	0.26	0.22

NOTE: Emissions intensity refers to total Scope 1 and Scope 2 CO₂e emissions generated in metric tonnes per unit of product measured in metric tonnes. Excludes co-products and intermediate products.

305-5 Reduction of GHG emissions

Mosaic is taking a proactive approach to reducing our GHG emissions, with particular emphasis on improving energy efficiency.

GHG emissions reductions resulting from the initiatives reported in [302-4](#) equal approximately 50,000 tonnes of CO₂e, the equivalent of taking more than 10,000 average United States cars off the road for a year.

For more information on Mosaic's efforts to reduce GHG emissions and address climate change, please see our [2017 CDP Climate Change response](#).

The results of a value chain exercise conducted by a third party to complete in 2016 confirmed that the GHG impacts associated with the application of our products—primarily potash and phosphate crop nutrients—are minimal. However, Mosaic promotes the use of best agricultural practices, including research and practices to minimize 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](#).

305-7 NO_x, SO_x and other significant air emissions

CRITERIA AIR AND OTHER POLLUTANTS (,000 TONNES)

BUSINESS SEGMENT/ EMISSION TYPE	2012	2013	2014	2015	2016	NORMALIZED 2016
NO _x	4.56	3.06	3.55	4.20	3.27	0.19
CO	1.77	4.02	2.26	1.39	1.43	0.08
PM	3.66	3.87	5.09	5.73	6.05	0.35
SO ₂	13.11	13.65	17.04	15.97	16.55	0.95
VOC	2.61	0.25	0.66	0.25	0.24	0.01
NH ₃	1.10	1.40	1.86	1.82	1.84	0.11
F	0.15	0.14	0.15	0.13	0.11	0.00*
H ₂ S	0.11	—	—	—	0.01	0.00*
SAM	0.12	0.13	0.15	0.16	0.16	0.00*
HF	0.45	0.04	0.39	—	0.13	0.00*

NOTE: All business segments included. Emissions based on stack test results and emission factors. "Normalized" refers to the emissions value per 1,000 tonnes of finished product. Values marked with an asterisk are less than 0.01 per 1,000 tonne.

304-1 Operational sites owned, leased, managed in, or adjacent to protected areas and areas of high biodiversity value outside protected areas

Although there are no International Union for Conservation of Nature (IUCN) protected management areas in the vicinity of our operations, Mosaic's Florida operations have placed approximately 15,000 acres in conservation easements along wildlife corridors, floodplains, riparian zones, wetlands, and other ecologically significant habitats.

As of December 31, 2017, Mosaic owned or maintained mineral interests in about 359,000 acres of land in Florida related to our phosphates mining operations. As part of the mine permitting process, Mosaic preserves and protects unmined land as well as land restored through mitigation that are important areas of high biodiversity. All of the mitigation areas identified in our federal and state permits are permanently protected through conservation easements recorded against title to the property. Such protection areas are designed to create or connect to wildlife corridors to facilitate wildlife use, and to preserve in perpetuity high quality waters and wetland systems. Through December 2017, Mosaic owns or controls more than 22,500 acres in Florida that are designated as non-impacted floodplain, high-quality wetlands, and other preservation for which Mosaic has granted conservation easements.

Mosaic operates three Canadian potash facilities, all located in the southern half of the province of Saskatchewan, including our solution mine at Belle Plaine, two interconnected mine shafts at our Esterhazy shaft mine and our shaft mine at Colonsay. Mosaic has mineral rights to approximately 594,000 acres in Saskatchewan for potash mining and surface rights to approximately 35,000 acres. Mosaic's United States potash operations include a shaft mine in Carlsbad, New Mexico, with mineral rights to approximately 77,000 acres for potash mining and approximately 7,186 acres of surface rights. Since shaft mining in Saskatchewan occurs at more than 3,000 feet below surface, and solution mining requires limited acreage for pipeline and cluster infrastructure, the only surface areas that are disturbed are the actual footprint of the mine shaft and the adjacent above-ground processing facilities and tailings management areas.

304-2 Descriptions of significant impacts of activities, products and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas

Mosaic phosphate mines are surface mine operations that involve land clearing. During the permitting process, multiple local, regional, state and federal permitting authorities review the application and conduct independent approval processes to ensure environmentally sensitive, biodiverse areas are avoided, minimized and mitigated. Further, site specific Wildlife and Habitat Management Plans are developed for each mine, which outline measures to be implemented to protect and manage wildlife, listed species and their habitats, including provisions for pre-clearing surveys and species relocation for less mobile species, such as the gopher tortoise. Ongoing monitoring activities such as the Horse Creek Stewardship and Peace River Monitoring programs, provide assurances to downstream parties that mining does not significantly impact the water quality, water quantity and biodiversity on riverine systems within or outside of our property boundaries. Mining impacts are considered by the State of Florida to be temporary impacts. When mining is complete, mined areas are backfilled and restored to native habitat areas, which is often completed within 5 to 10 years of disturbance. Such habitats are designed to be connected to wildlife corridors to facilitate re-entry of wildlife. Please see our website for more information.

Potash mining operations in Canada and the United States use shaft and solution mining techniques. Because of the limited footprint on surface features, such as surface infrastructure and tailings management areas, impacts to wildlife and habitats are also highly localized and relatively small in scale. Prior to surface development, Mosaic's Saskatchewan facilities consult multiple stakeholders as part of best management practices that are protective of wildlife and habitats.

MM1 Land disturbed or rehabilitated

Mosaic reports our Florida mining and reclamation activities to the Florida Department of Environmental Protection (FDEP) Mining and Mitigation program. As of the date of this publication's release, 2016 and 2017 figures have not been fully validated and deemed complete by FDEP. We provide estimates of mined and reclaimed acres for those years in the table below. Once we have satisfied all reclamation obligations with respect to mined and disturbed lands, and the regulatory agencies "release" those reclaimed lands, they are considered "released acres." Accordingly, a drop in annual reclaimed acreage may be the result of our satisfaction of those reclamation obligations and agency release with respect to reclaimed acres.

LAND MINED AND RECLAIMED (ACRES)

	TOTAL ACRES DISTURBED, NOT RECLAIMED		TOTAL RECLAIMED STATUS***		TOTAL RELEASED
	MINED	DISTURBED	MINED	DISTURBED	MINED AND DISTURBED
2013	1,243	1,728	563	(3,115)	3,695
2014*	12,320	5,320	3,776	2,214	5,734
2015	2,401	4,703	2,668	2,631	15,242
2016**	2,585	1,117	(3,918)	(549)	10,678
2017**	2,159	2,095	(1,249)	401	2,206

*The increase in mined acres in 2014 was due to the inclusion of 7,761 acres from the South Pasture mine as a result of our 2014 acquisition of the Florida Phosphate assets of CF Industries, Inc.

**As of the date of this publication's release, this year's data has not been validated by FDEP. Accordingly, these figures are estimates only and may be revised in future reports.

***Represents estimates of the annual changes to total unreleased reclaimed acreages. A drop in acreage indicates more acres were released than reclaimed during that year.

MM2 Number and percentage of sites identified as requiring biodiversity management plans

All active mine sites within the United States and Canada are required to operate pursuant to federal, state/provincial and local regulations related to management of habitat and wildlife. Mosaic has four operating mines in Florida; all (100 percent) have Wildlife and Habitat Management Plans (WHMP) that cover areas of biodiversity sensitivity. These plans are linked to U.S. Fish and Wildlife Service (FWS) and Florida Fish and Wildlife Conservation Commission (FWC) review of permit applications, associated wildlife survey data, and corresponding Biological Opinions. Our WHMPs outline management techniques that rely on FWS/FWC guidance and from applied biological practices we have used in the past that have been proven to be successful. FWS and FWC require subsequent surveys and reporting to gauge wildlife response to our activities.

304-3 Habitats protected or restored

In our phosphates mining operations, we restore or reclaim every acre of land we mine or disturb, with an emphasis on habitat. Consequently, there are at least as many acres in upland and wetland habitat after mining as before. In addition, environmentally sensitive lands—typically about 15 percent of a project site—are set aside for preservation, with additional reclaimed wetlands and some uplands (such as gopher tortoise recipient sites) protected through conservation easements. (Gopher tortoise recipient sites must contain at least 250 acres of contiguous habitat.)

For example, a typical 10,000 acre mine site may be composed of about 25 percent wetland and 30 percent upland habitat before and after mining. Frequently—prior to mining—much of this habitat is fragmented or unconnected. Thus, holistic mitigation plans allow restoration to be consolidated and intertwined to promote wildlife migration as well as buffers for streams and flowways. Success of these restoration efforts is determined by standards imposed by regulatory agencies, and independent assessments by third party ecological professionals.

Mosaic planted more than 650,000 trees in 2017, reclaiming uplands, significant upland habitats and wetlands. Please see MM1 for information on our reclamation activities in 2017.

Mosaic has fostered partnerships with, and funding for, a variety of non-governmental organizations (NGOs) and academic institutions to advance our understanding of the habitats we manage through reclamation. Examples of these groups include Tampa Bay Watch, The Nature Conservancy, Archbold Biologic Station and Audubon of Florida.

Mosaic's Potash business segment is similarly committed to habitat restoration. For example, in 2012, Mosaic made a grant to Ducks Unlimited for \$2 million that will restore at least 500 acres of wetlands over a 10-year period in Saskatchewan. 2017 marked the sixth year of this agreement. To date, approximately 384 acres have been restored as part of this initiative.

304-4 Total number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk

Mosaic does not specifically manage wildlife species per the International Union for Conservation of Nature (IUCN) List designations, but rather in accordance with rules established for threatened or endangered species by regulatory agencies with authority in the regions in which we operate. Some of the species listed below are present on lists that are applicable to the region in which the facility is located.

IUCN RED LIST OF SPECIES POSSIBLY IN THE VICINITY OF OPERATIONS

IUCN RED LIST DESIGNATION	NUMBER OF SPECIES	TYPE OF SPECIES
Florida Phosphate Operations		
Endangered	—	-
Vulnerable	5	Florida bonneted bat, Florida mouse, gopher tortoise, Florida scrub jay, West Indian manatee
Near Threatened	5	Gopher frog, short-tailed snake, common bobwhite, loggerhead shrike, wood thrush
Least Concern	25	Burrowing owl, Florida black bear, sandhill crane, Florida pine snake, least tern, limpkin, little blue heron, osprey, Southeast American kestrel, Sherman's fox squirrel, snowy egret, tricolored heron, white ibis, wood stork, Eastern indigo snake, Northern crested caracara, American alligator, bald eagle, common grackle, red-winged blackbird, Northern harrier, ground dove, field sparrow, Eastern wood peewee, Eastern diamondback rattlesnake
U.S. Potash Operations (New Mexico)		
Endangered	2	Pecos gambusia ¹ , Southwestern willow flycatcher ¹
Vulnerable	2	Western yellow-billed cuckoo ² , Pecos bluntnose shiner ²
Near Threatened	3	Loggerhead shrike, snowy plover, piping plover
Least Concern	17	American kestrel, Cooper's hawk, dunlin, great horned owl, greater yellowlegs, Harris's hawk, killdeer, least sandpiper, least tern, lesser yellowlegs, merlin, Northern harrier, Northern pintail, Northern shoveler, red-tailed hawk, sanderling, sandhill crane, Western sandpiper

¹The pecos gambusia and western yellow-billed cuckoo were not necessarily observed near the Carlsbad facility, but they are listed by the Bureau of Land Management as confirmed or hypothetical species in the Carlsbad region. The U.S. Endangered Species Act (ESA) lists these species as "endangered"

²these species are ESA listed "threatened"

IUCN RED LIST OF SPECIES POSSIBLY IN THE VICINITY OF OPERATIONS (CONTINUED)

IUCN RED LIST DESIGNATION	NUMBER OF SPECIES	TYPE OF SPECIES
Canada Potash Operations		
Endangered	-	-
Vulnerable	3	horned grebe, snowy owl, Sprague's pipit
Near Threatened	2	olive-sided flycatcher, loggerhead shrike
Least Concern	161	alder flycatcher, American avocet, American bittern, American coot, American crow, American goldfinch, American kestrel, American robin, American white pelican, American wigeon, bald eagle, bank swallow, barn swallow, Baltimore oriole, black-and-white warbler, black-billed magpie, black-capped chickadee, black-crowned night heron, black-necked grebe, black tern, blue jay, blue-winged teal, bobolink, Brewer's blackbird, brown-headed cowbird, bufflehead, California gull, Canada goose, canvasback, cedar waxwing, chestnut-sided warbler, chipping sparrow, clay-colored sparrow, common goldeneye, common grackle, common nighthawk, common raven, common yellowthroat, dark-eyed junco, double crested cormorant, downy woodpecker, eastern kingbird, eastern phoebe, European starling, Franklin's gull, gadwall, grasshopper sparrow, gray catbird, gray partridge, great blue heron, great crested flycatcher, great horned owl, green-winged teal, hairy woodpecker, hermit thrush, horned lark, house sparrow, house wren, killdeer, lark sparrow, least flycatcher, Le Conte's sparrow, lesser scaup, lesser yellowlegs, mallard, marbled godwit, marsh wren, merlin, mourning dove, Nelson's sparrow, northern harrier, northern long-eared owl, northern pintail, northern shoveler, orchard oriole, ovenbird, pied-billed grebe, purple martin, redhead, red-breasted nuthatch, red-eyed vireo, red-necked grebe, red-tailed hawk, red-winged blackbird, ring-billed gull, ring-necked duck, rock dove, rose-breasted grosbeak, ruby-throated hummingbird, ruddy duck, ruffed grouse, sandhill crane, savannah sparrow, Say's phoebe, sedge wren, sharp-tailed grouse, short-eared owl, snow goose, song sparrow, solitary sandpiper, sora, spotted sandpiper, spotted towhee, Swainson's hawk, swamp sparrow, tree swallow, turkey vulture, upland sandpiper, veery, vesper sparrow, Virginia rail, warbling vireo, Western grebe, western meadowlark, Western wood peewee, white-breasted nuthatch, white-crowned sparrow, white-throated sparrow, willet, willow flycatcher, Wilson's phalarope, Wilson's snipe, Wilson's warbler, yellow-bellied flycatcher, yellow-bellied sapsucker, yellow-headed blackbird, yellow-shafted flicker, yellow warbler, boreal chorus frog, Canadian toad, great plains toad, northern leopard frog, plains garter snake, red-bellied snake, western tiger salamander, wood frog, American badger, American beaver, coyote, eastern cottontail, moose, mule deer, muskrat, North American deer mouse, North American river otter, prairie vole, red fox, red squirrel, snowshoe hare, striped skunk, thirteen-lined ground squirrel, white-tailed deer, white-tailed jack rabbit, black sided darter, common shiner, creek chub, fathead minnow, johnny darter, log perch, longnose dace, northern pearl dace, northern pike, walleye, white sucker, yellow perch
Louisiana Phosphate Operations		
Endangered	1	Pallid Sturgeon
Vulnerable	1	West Indian manatee
Near Threatened	-	-
Least Concern	2	Bald eagle, long-tailed weasel

NOTE: Species listed as possibly affected by Louisiana operations are from Louisiana Department of Wildlife and Fisheries database and may not have been actually observed on or near Mosaic property. Avian species listed as affected or possibly affected by New Mexico and Saskatchewan operations are migratory species with potential migration patterns proximal to our operations in those geographies.

306-1 Total water discharge by quality and destination**306-5 Identity, size, protected status and biodiversity value of water bodies and related habitats significantly affected by the organization's discharges of water or runoff****TOTAL WATER DISCHARGES OF MOSAIC PHOSPHATES BUSINESS SEGMENT**

	2013	2014	2015	2016	2017
Phosphates Annual Outfall Discharges (,000 m3)	444,035	304,569	401,242	456,861	383,218
Phosphates Outfall Discharge Annual Phosphorous Loadings Tonnes	2,691	2,680	2,025	1,826	1,732
Phosphates Outfall Discharge Annual Nitrogen Loadings Tonnes	210	278	388	490	409

RIVERINE BASINS WHERE MOSAIC OPERATES

WATER BODY/BASIN	BASIN SIZE (HECTARES)	RIV ER LENGTH (KM)
Hillsborough River	175,000	95
Peace River	608,000	169
Alafia River	109,000	38
Little Manatee River	58,000	58
Myakka River	155,000	106
Mississippi River	322,500,000	3,370
Pecos River	11,500,000	1,490
Qu'Appelle	1,780,000	430

In the Phosphates segment, no outfalls discharge directly into a designated protected area, although discharges occur in two riverine basins upstream of Outstanding Florida Waters (segments of Little Manatee River and Myakka River) and Florida Wild and Scenic Rivers (segment of Myakka River). As an overarching principle, water that falls within the active, operational footprint of Mosaic's phosphate mining and fertilizer production facilities is actively managed, used in our operations, treated if necessary and discharged through these NPDES outfalls pursuant to water quality standards stipulated by our permit. Discharges are monitored, sampled and analyzed regularly by Mosaic, with reports provided to regulatory agencies to demonstrate ongoing compliance with permit limitations.

In certain high precipitation events, off-site discharges of freshwater surface runoff are warranted and are approved in advance by the Saskatchewan Ministry of Environment and Saskatchewan Water Security Agency. There were no such instances in 2017. Please see [MM3](#) for a discussion of our Potash segment's brine disposal methods.

306-2 Total weight of waste by type and disposal method**306-4 Weight of transported, imported, exported or treated waste deemed hazardous under the terms of the Basel Convention, and percentage of transported wastes shipped internationally****2017 WASTE GENERATED BY DISPOSAL METHOD (TONNES)**

	INCINERATION	LANDFILL	TREATMENT	RECYCLE	OTHER	TOTAL
Phosphates	1,361	10,291	1,147	40,244	3	53,045
Hazardous	22	579	639	12	3	1,255
Nonhazardous	1,339	9,711	508	40,232		51,790
Potash	28	2,006	698	5,673	15	8,420
Hazardous	28	219	698	255	15	1,215
Nonhazardous	—	1,788	—	5,418	—	7,206
International Distribution	20	3,502	431	1,093	16	5,062
Hazardous	6	70	2	2	—	79
Nonhazardous	15	3,432	429	1,091	16	4,983
Total	1,409	15,799	2,276	47,009	34	66,528

NOTE: "Other" disposal methods include combinations of co-processing, retort, treatment, incineration and/or deep well injection. Subtotals may not always add up to totals due to rounding. Our tracking of wastes across our business continues to improve. The year-over-year reduction in total waste was primarily due to large recycling totals generated following the demolition of our Hookers Prairie facility in 2015 and 2016.

No hazardous wastes were shipped internationally.

MM3 Overburden, rock, tailings and sludge**MINING AND MINERAL PROCESSING SOLID WASTE GENERATED AND DISPOSAL METHOD (TONNES)**

MATERIAL	2013	2014	2015	2016	2017	DISPOSAL METHOD
Phosphates						
Overburden	146,522,396	154,240,684	122,645,800	127,400,668	126,608,107	Used for Reclamation
Sand Tailings	34,442,381	37,078,556	28,374,790	31,310,241	39,221,004	Used for Reclamation
Clay	15,786,278	15,588,902	14,402,390	13,901,116	18,416,751	Stored in Surface Impoundments and used for Reclamation
Phosphogypsum	20,602,936	23,992,856	23,556,918	22,864,328	25,552,713	Managed in Permitted Phosphogypsum Stack Systems
Potash						
Tailings (Salt)	12,166,694	11,285,000	9,511,314	9,987,260	12,961,397	Stored or Recycled for Commercial use
Brine	4,408,041	4,237,000	4,502,953	4,992,673	13,858,720	Deep Well Injection or Evaporation

NOTE: In 2018 our Potash segment standardized the calculation methodology for brine, which explains the variance between the 2016 and 2017 reported brine values. There was no change to the operations process and the brine volumes were accurately reported.

306-3 Number and volume of significant spills

In 2017, we had a total of seven releases equal to or greater than 2,000 gallons.

ENVIRONMENTAL RELEASES

BUSINESS SEGMENT	2013	2014	2015	2016	2017
Phosphates	10	6	3	8	6
Potash	10	6	3	8	2
International Distribution	—	2	—	—	—

NOTE: Table includes environmental releases equal to or greater than 2,000 gallons equivalent. Releases meeting this criteria included: Phosphates – (3) impacted storm water, (1) process water, (1) freshwater and (1) product matrix; Potash – (2) brine.

307-1 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations

In [Form 10-K](#) and [10-Qs](#), Mosaic reports any environmental enforcement action that it has identified as potentially material to investors, or if not potentially material, as potentially meeting or exceeding a significance threshold of \$100,000. In 2017, there were no enforcement actions meeting that criterion.

308-2 Significant actual and potential environmental impacts in the supply chain and action taken

In 2016 we worked with a third party to complete an assessment of our value chain, in part, to identify the environmental impacts associated with our top suppliers. The analysis included suppliers to which approximately 90 percent of our supply chain expenditures in North America were made, representing more than 3,500 suppliers. Through this exercise we determined that the environmental impacts associated with our supply chain are primarily associated with the purchase of manufactured ammonia. We report those emissions in [305-3](#). We will continue to expand the scope of our engagement with suppliers in order to evaluate and report their performance, while identifying opportunities to mitigate and reduce their environmental impacts.

Management Approach: Employment, Labor/Management Relations, Diversity and Equal Opportunity

At Mosaic, the strength of our business relies on the commitment of an exceptional global team of employees. Whether working in our mines, distribution facilities or offices, our more than 8,000 employees are part of a global Mosaic team that is richly diverse in skills, experiences and backgrounds. Together, we are responsible, innovative, collaborative and driven.

Mosaic aims to be the employer of choice for a diverse and inclusive workforce. Our global talent investment philosophy is to provide competitive compensation and benefits, with flexibility to choose programs that best meet our employees' needs. Mosaic offers health, welfare and retirement benefits to all full-time employees and eligible dependents.

Mosaic measures employee satisfaction biennially in a comprehensive survey of employee engagement, an indicator of productivity and a force that drives business outcomes. Our engagement score in 2017 was 74 percent, which means a majority of employees recommend Mosaic as a great place to work, are proud to work for Mosaic, rarely think about looking for a new job with another company, and are satisfied with Mosaic as a place to work. We are addressing areas of improvement, including process efficiencies and teamwork and collaboration, to further drive engagement.

Mosaic offers competitive compensation and benefits in each of the company's significant locations of operation. Within each of the countries in which Mosaic operates, benefits provided or offered to our full-time employees may differ for various reasons, including:

- State or country mandated benefit laws that apply to Mosaic employees in a specific geography
- Labor agreements between Mosaic and labor organizations acting on behalf of represented employees
- Market-specific benefit programs or practices that exist within an area that Mosaic competes for labor
- The impact to employees of local or national tax laws regarding the treatment of company-sponsored benefits

Mosaic values and encourages employee engagement at all of our locations. Where employees have elected union representation, Mosaic views the collective bargaining process as an important form of collaborative employee engagement. In addition, Mosaic is sensitive to the needs of its employees, and much consideration is placed on applicable notice periods for any such changes that may impact employees.

Mosaic's Equal Employment Opportunity and Nondiscrimination Policy, signed by our Chief Executive Officer, provides equal employment opportunities to all Mosaic employees, applicants and other qualified persons without regard to race, religion, color, gender, national origin, age, disability, marital status, citizenship status, military or veteran status, sexual orientation, gender identity, genetic information, or any other legally protected status under applicable laws in countries where Mosaic has operations.

The policy also provides that Mosaic is committed to maintaining a work environment free of discrimination. Mosaic's commitment applies to all terms and conditions of employment, including: recruiting and hiring, training and education, transfers, promotions, compensation and benefits, performance assessments, terminations, layoffs or recall from layoff, leaves of absence, and company-sponsored training and education.

Retaliation or reprisal toward an employee who has exercised their rights under this policy is strictly prohibited. Mosaic's [Code of Business Conduct and Ethics](#) reinforces this policy.

Our [Commitment to Inclusion](#) reinforces that Mosaic is focused on building a representative workforce that embraces the opportunities that diversity brings to the workplace. Mosaic actively recruits transitioning military through our advertising, networking and recruitment events. In Brazil, there are programs aimed at actively recruiting disabled professionals through methods such as advertising, investing in technical and professional education in local communities, and conducting workshops with leaders and employees that reinforce inclusivity.

Mosaic supports and participates in a variety of formal and informal channels through which employees can submit concerns or grievances, including an EthicsPoint hotline, biennial engagement survey, mediation, arbitration, and/or through other formal administrative tribunal such as the National Labor Relations Board. Our collective bargaining agreements contain procedures for resolving grievances over the application or interpretation of such agreements, and Mosaic resolves labor grievances in accordance with the procedures outlined in those respective agreements.

401-1 Total number and rates of new employee hires and employee turnover by age group, gender and region

EMPLOYEES BY AGE GROUP, GENDER AND REGION

COUNTRY	<30		30-50		>50		TOTAL	
	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE
Australia	0	0	0	0	0	1	0	1
Brazil	82	372	150	639	10	89	242	1,100
Canada	65	257	188	1,126	49	520	302	1,903
China	6	13	41	87	0	8	47	108
India	2	0	3	45	0	1	5	46
Paraguay	5	30	5	44	0	2	10	76
United States of America	50	399	348	1,748	235	1,605	633	3,752
Subtotal	210	1,071	735	3,689	294	2,226	1,239	6,986
Total	1,281		4,424		2,520		8,225	

NOTE: Excludes long-term leaves, co-ops, seasonal and temporary employees. Employees considered to be on long-term leave are those away from work more than 180 days.

NEW HIRES BY AGE GROUP

COUNTRY	<30		30-50		>50		TOTAL	
	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE
Australia	—	—	—	—	—	—	—	—
Brazil	18	111	13	80	—	4	31	195
Canada	13	60	5	84	1	10	19	154
China	2	6	1	2	—	—	3	8
India	—	—	—	7	—	—	—	7
Paraguay	2	3	—	3	—	—	2	6
United States of America	16	122	44	127	13	28	73	277
Subtotal	51	302	63	303	14	42	128	647
Total	353		366		56		775	

NOTE: Excludes long-term leaves, co-ops, seasonal and temporary employees.

EMPLOYEE TURNOVER BY AGE GROUP

COUNTRY	<30		30-50		>50		TOTAL	
	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE
Australia	—	—	—	—	—	—	—	—
Brazil	19	73	21	123	3	22	43	218
Canada	1	12	13	31	5	51	19	94
China	1	2	2	4	1	1	4	7
India	—	—	—	3	—	—	—	3
Paraguay	2	4	1	8	—	1	3	13
United States of America	10	88	37	266	47	372	94	726
Subtotal	33	179	74	435	56	447	163	1,061
Total	212		509		503		1,224	

NOTE: Excludes long-term leaves, co-ops, seasonal and temporary employees. Turnover totaled 15% in 2017. These figures include 124 employees that accepted early retirement offers, and approximately 280 employees whose jobs were eliminated as part of Phosphate and Corporate segment reorganizations.

401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation

Mosaic provides competitive compensation and bonus opportunities for jobs in all disciplines and geographic markets based on company and individual performance. Additionally, Mosaic contributes toward retirement income benefits, which may include defined-benefit pension plans, defined-contribution plans or other supplemental retirement plans across our locations and countries. The majority of administrative, insurance and other costs associated with Mosaic-sponsored health and welfare plans is borne by us. Participation in the retirement plans is automatic in the United States and Canada. The defined-contribution plan is open to all, but it is not mandatory to participate.

EMPLOYEE BENEFITS (● = YES)

TYPE OF BENEFIT	UNITED STATES	CANADA	BRAZIL	PARAGUAY	INDIA	CHINA
Health Care	●	●	●	●	●	●
Life Insurance	●	●	●	●	●	●
AD&D Insurance	●	●			●	●
Disability Coverage	●	●	●	●	●	●
Employee Assistance Program	●	●	●	●	●	●
Defined-benefit Pension Plan	●	●	●		●	
Defined-contribution Savings Plan	●	●	●		●	
Annual Profit Sharing	●	●	●	●	●	●
Maternity Leave*	●	●	●	●	●	●
Paternity Leave*	●	●	●	●	●	●
Sickness Leave	●	●	●	●	●	●
Deferred Bonus and Deferred Pay	●		●			
Long-term Incentives	●	●	●		●	●
Stock Ownership	●					
Relocation Assistance	●	●	●	●	●	●
Flex Time Program	●	●	●			●
Formal Wellness Programs	●	●	●			●
Tuition Assistance/Education	●	●	●	●	●	●
Telecommute Program						●

* In most countries maternity and paternity leave is offered in accordance with applicable law. The exceptions are India, where additional paternity leave is provided; and Brazil, where additional maternity leave is provided.

402-1 Minimum notice periods regarding operational changes, including whether these are specified in collective agreements

Some of Mosaic's labor agreements contain provisions of advance notice periods with respect to significant operational changes that impact employees. In most locations the exact notice requirement varies depending on circumstances surrounding the changes. In the United States, we adhere to federal and state Worker Adjustment and Retraining Notification Act (WARN) laws that require a 60-day notification of plant closings and mass layoffs. In Canada, Mosaic adheres to or exceeds the minimum notice requirements set by the Saskatchewan Employment Act. In China, Mosaic adheres to or exceeds the minimum notice requirements set by Article 41 of the Employment Contract Law (ECL). In Brazil, Mosaic adheres to the minimum 30-day notice requirement for dismissals without cause required by Brazilian Labor Law. In the other regions where we operate, Mosaic meets and usually exceeds the minimum notice required, which varies by local legislation and collective bargaining agreements.

MM4 Number of strikes and lock-outs exceeding one week's duration, by country

Mosaic has not been subject to organized labor actions, including strikes or lockouts of any duration, at any of its locations in the 2017 reporting period. Moreover, we have not had a strike by or lockout of our employees in facilities where Mosaic is the majority owner since our formation in 2004.

405-1 Diversity of governance bodies and employees

WORKFORCE BY AGE AND GENDER

AGE GROUP	FEMALE		MALE		TOTAL	
	COUNT	PERCENTAGE	COUNT	PERCENTAGE	SUBTOTAL	PERCENTAGE
30-50	735	8.94%	3,689	44.85%	4,424	53.79%
<30	210	2.55%	1,071	13.02%	1,281	15.57%
>50	294	3.57%	2,226	27.06%	2,520	30.64%
Total	1,239	15.06%	6,986	84.94%	8,225	100%

NOTE: Excludes long-term leaves, co-ops, seasonal and temporary workers. 15% of Mosaic's total workforce is female and 17% of the management workforce is female. Approximately 27% of the United States workforce is considered to be a member of a minority group. "Minority group" in the United States is defined as non-white ethnicity of any gender.

BOARD OF DIRECTORS BY AGE AND GENDER

AGE GROUP	FEMALE		MALE		TOTAL	
	COUNT	PERCENTAGE	COUNT	PERCENTAGE	SUBTOTAL	PERCENTAGE
30-50	—	—	1	7.7	1	8.3%
>50	2	16.7%	10	76.9%	12	92.3%
Total	2	15.4%	11	84.6%	13	100%

NOTE: Table represents age and gender information for Mosaic's 2017 Board of Directors. For more information, please view our [2017 Proxy Statement](#).

405-2 Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation

One of Mosaic's strategic priorities is to invest in people. We are committed to providing the environment, development opportunities and compensation to ensure that Mosaic is a company where employees are proud to work and grow.

We are an equal opportunity employer, and our recruiting practices focus on matching the best possible candidate to the position. Mosaic uses salary ranges that are competitive with market pay ranges for positions of comparable responsibility, functional knowledge, impact and other compensable factors. Gender is not a factor when determining compensation. Each salary range has a minimum or threshold salary for a new hire, although Mosaic typically sets the actual salary above this minimum.

Management Approach: Occupational Health and Safety

We are dedicated to preserving a safe, healthy and respectful work environment for an engaged, inclusive workforce. 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.

Mosaic has a safety management system in place that is designed to identify, evaluate and control risks. This proactive approach allows us to understand the risks, take action and prevent incidents from occurring in the first place, which results in fewer injuries.

Our updated [Sustainability Targets](#) include a goal to reduce incidents and injuries, and improve year-over-year performance. Globally, all Mosaic employees, service providers and contractors are held to the same high standards outlined in our [Code of Business Conduct and Ethics](#).

403-1 Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs

Mosaic has safety committees at a majority of our global operations, representing more than 95 percent of employees. All Brazil facilities and nearly all Mosaic United States and Canada locations have formal joint safety committees, with the exception of small locations, such as warehouses, with 15 or fewer employees. The role of these committees, which are composed of employees from all levels, is to promote safety awareness and reinforce a working environment that promotes connectivity, teamwork and productivity among employees while supporting Mosaic's pursuit of an incident- and injury-free workplace.

403-2 Type of injury and rates of injury, occupational diseases, lost days and absenteeism, and total number of work-related fatalities, by region

403-3 Workers with high incidence or high risk of diseases related to their occupation

Mosaic follows United States Occupational Safety and Health Administration (OSHA) standards to calculate recordable injury frequency rates (RIFR) on a global basis. An OSHA recordable injury is an occupational injury that requires medical treatment that is more than simple first aid. The most common injuries are: cuts/lacerations/avulsions; fractures; sprains/strains; pain; and bruises/contusions.

Lost time incident frequency rate (LTIFR) calculates the frequency rate of lost time injuries. This measure is an indicator of incident severity. Lost days begin the day after the lost time incident occurs and calendar days are counted, with no exception for weekends, holidays, vacation or scheduled time off.

Employees who work in areas with elevated noise in the operational environment are at potential risk for hearing loss. To mitigate this risk, Mosaic uses engineering controls to reduce the noise of our equipment; where this cannot feasibly be accomplished, Mosaic requires the use of hearing protection or even double hearing protection.

Contractor safety is also a priority. We select, screen and audit contractors using the ISNetworld Rating—a global system in which contractors and suppliers report their safety performance and conformance to regulatory and internal health, safety and procurement requirements. In 2017 Mosaic adopted more stringent ISNetworld safety performance standards that emphasize proactive safety measures in order to drive further improvements in performance.

There were no work-related fatalities in 2017.

RECORDABLE INJURY FREQUENCY RATE (RIFR) 2017

	EMPLOYEE	CONTRACTOR	TOTAL
United States	1.18	0.78	1.02
Canada	0.72	0.77	0.74
International	0.06	0.10	0.08
Total	0.86	0.65	0.78

LOST TIME INCIDENT FREQUENCY RATE (LTIFR) 2017

	EMPLOYEE	CONTRACTOR	TOTAL
United States	0.22	0.15	0.19
Canada	0.09	0.28	0.16
International	0.06	-	0.04
Total	0.16	0.16	0.16

ABSENTEEISM RATE 2017

EMPLOYEE	TOTAL
Phosphates*	3%
Potash*	3%
International Distribution**	4%

*Data for hourly and salary non-exempt employees only.

**International Distribution percentage represents absenteeism for employees in Brazil. In China and India, all full-time Mosaic employees are salaried, and absenteeism is accounted for per their respective HR policies.

403-4 Health and safety topics covered in formal agreements with trade unions

Mosaic conducts business activities in a manner that protects the health and safety of its employees, contractors, customers and communities. 100 percent of our union contracts in the United States, Canada and Brazil cover health and safety topics. Topics covered include supply of personal safety equipment, medical examinations, accident reporting and investigation, rights to refuse unsafe work and health and safety committees.

Though rare, emergencies can occur in our business, and the ability to respond promptly and effectively is critical. Mosaic's overarching approach to crisis management includes risk anticipation and mitigation, site-specific emergency response plans, and routine crisis simulation drills involving Mosaic employees from various functions and emergency response professionals from the communities where we operate. We also test our skills by participating in emergency response competitions with other companies. Our internal crisis management intranet site outlines response plan specifics, including roles, procedures, guidelines and protocols for handling crises and communicating with stakeholders.

Management Approach: Training and Education

One of Mosaic's strategic priorities is to invest in people, and we are committed to providing the environment, development opportunities and compensation to ensure that Mosaic is a company where employees are proud to work and grow.

Mosaic employees are encouraged to continuously learn and improve their skills. With management support, we offer a companywide educational reimbursement program to help employees in each of our operating countries better meet their current job responsibilities, as well as prepare for future career opportunities within our company. Our internal training opportunities also support the continuous development of Mosaic employees at all levels:

- Leadership
- Professional and career development
- Environmental, health and safety (EHS) training
- Equipment and maintenance training
- Continuous improvement

404-1 Average hours of training per year per employee by employee category

TRAINING AND EDUCATION 2017 (TRAINING HOURS BY EMPLOYEE GROUP)

COURSE TITLE	HOURLY	SUPPORT	PROFESSIONAL	LEADERSHIP	STRATEGIC	TOTAL TRAINING IN HOURS
Leadership, Professional Development and Function Training (HR, IT, Finance and Commercial for all EEs)	3,897	1,606	11,699	6,165	372	23,739
Legal Compliance Training	1,238	467	2,210	1,079	128	5,122
EHS and Operations Training						
Phosphates	198,727	4,817	19,359	5,945	653	229,501
Potash	108,633	1,711	30,335	14,455	1,797	156,931
International and Corporate Headquarters	105,058	2,448	9,176	2,694	183	119,559
Total Hours						534,852
Hours per employee (8,225 number of EEs)						65

NOTE: Training hours in topics including Anti-Corruption, FCPA and Business Conduct and Ethics totaled 4,669 hours in 2017.

404-2 Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings

Mosaic provides employees with helpful planning tools, calculators, articles, videos and webcasts, in addition to optional services provided by our third-party vendors to help plan for retirement.

Mosaic also provides support and training for employees during transitional career stages. When a reduction in our workforce occurs, we provide comprehensive career transition services to employees to help ease the stress that accompanies job loss. View 102-10 for more information on these efforts in 2017.

404-3 Percentage of employees receiving regular performance and career development reviews, by gender and employee category

As part of our strategic priority to develop, engage and empower our people, we have a performance management process called EDGE: Evaluating, Developing and Growing Excellence. Our performance management process has evolved to include scaled competencies, goal alignment, and an emphasis on employee and career development. In addition, we offer tuition reimbursement programs to support continued education for Mosaic employees. More than 160 employees are currently enrolled in Mosaic's tuition reimbursement program.

EMPLOYEES RECEIVING REGULAR PERFORMANCE AND CAREER DEVELOPMENT REVIEWS BY GENDER 2017

	FEMALE	MALE	TOTAL
Performance Reviews Given	910	2,220	3,130
Percentage of Reviews Received	98.06%	98.32%	98.24%

NOTE: Employees who did not have a performance review in 2017 were hired or became eligible after a 10/01/17 participation cutoff.

Management Approach: Non-discrimination, Freedom of Association and Collective Bargaining, Child Labor, Forced or Compulsory Labor and Rights of Indigenous Peoples

As a signatory to the United Nations Global Compact, Mosaic is committed to the protection and advancement of human rights. Mosaic's [Code of Business Conduct and Ethics](#) forms the basis of our [Commitment to Human Rights](#).

406-1 Total number of incidents of discrimination and corrective actions taken

In 2017 there were a total of five complaints of discrimination that were filed with external agencies:

- United States - four discrimination complaints filed with the United States Equal Employment Opportunity Commission (EEOC). Two were dismissed by the EEOC for failure to establish violations; one was settled without an admission of wrongdoing by Mosaic; and one is pending (in which Mosaic asserts no discrimination occurred and the employee voluntarily resigned).
- Canada - one complaint filed with the Saskatchewan Occupational Health and Safety Division that was found in favor of Mosaic. The decision was appealed by the complainant and is currently pending.

In 2017, there was one substantiated incident of protected category discrimination (religious) reported through Mosaic's internal complaint process. The individual was verbally counselled.

407-1 Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights

Mosaic does not have any operations in which the right to exercise freedom of association and collaborative bargaining are identified as a significant risk. Mosaic does not discriminate based on association, per our Commitment to Human Rights, which is guided by the Universal Declaration of Human Rights (UDHR), the most widely recognized definition of human rights and the responsibilities of national governments; the International Labour Organization (ILO) Declarations on Fundamental Principles and Rights at Work; and the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises. Per our Commitment to Human Rights, Mosaic aims to strengthen and enforce human rights in our policies and operations globally, including in our supply chain.

408-1 Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor

409-1 Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures taken to contribute to the elimination of all forms of forced or compulsory labor

Mosaic does not have any operations that are identified as a significant risk for child labor or forced or compulsory labor practices. Mosaic abides by all applicable child labor laws, as well as our global hiring and employment policies. In the United States and Canada, we do not employ anyone under the age of 18. We do not tolerate forced or compulsory labor. Mosaic complies with all statutory requirements in the locations where we operate, as well as our own employment policies, including our Commitment to Human Rights, which is guided by the UDHR, the most widely recognized definition of human rights and the responsibilities of national governments; the ILO Declaration on Fundamental Principles and Rights at Work; and the OECD Guidelines for Multinational Enterprises. Per our Commitment to Human Rights, Mosaic expects all of our business partners to comply with labor and employment laws in the countries where we operate, including laws pertaining to child labor and forced labor.

411-1 Total number of incidents of violations involving rights of indigenous peoples and actions taken

MM5 Number of operations taking place in or adjacent to indigenous peoples' territories

Although Mosaic does not conduct any operations on, or immediately adjacent to, any lands of Indigenous Peoples, certain First Nations have acquired land parcels near our mining operations in Saskatchewan. In addition, Mosaic may from time to time enter into agreements to lease mineral rights that have been acquired by First Nations from other parties. Mosaic has had no reported incidents related to violations involving rights of Indigenous Peoples for the period covered in this report.

Management Approach: Local Communities

Our local communities are our homes, and we have a vested interest in their sustainability. We understand that for Mosaic to prosper, so must our communities. We support formal and informal communication channels to connect our employees, communities, partners and customers. Examples include our Community Advisory Panels (CAPs) in Central Florida, as well as regional and international microsites intended as open lines of communication between Mosaic and local communities.

	TOPIC BOUNDARY
Internal	Whole organization
External	Local communities; Civil Society Organizations

413-1 Percentage of operations with implemented local community engagement, impact assessments, and development programs

In alignment with Mosaic's Environment, Health and Safety policies, we are committed to conducting all business activities in a manner that protects the environment and the health and safety of our employees, our contractors, our customers and the public.

Our principles—which state that we are responsible, innovative, collaborative and driven—define how we conduct business, how we interact with colleagues, and how we treat our communities and planet. Accordingly, 100 percent of our operations have impact assessment and development programs. We employ a variety of approaches to systematically assess and manage the diverse impacts of industry on the various communities in which we operate.

SUSTAINING OUR GLOBAL AND LOCAL OPERATIONS

We serve customers in approximately 40 countries. We mine phosphate rock in Florida and process rock into finished phosphate products at facilities in Florida and Louisiana. We mine potash in Saskatchewan and New Mexico. We have other production, blending or distribution operations in Brazil, China, India and Paraguay, as well as strategic equity investments in a phosphate rock mine in the Bayovar region in Peru and a joint venture formed to develop a phosphate rock mine and chemical complexes in the Kingdom of Saudi Arabia. View a list of [our locations](#) (64 as of the date of this report).

Although Mosaic continues to refine and adapt community investment programs throughout South America and Asia, due to the nature of our business and potential impact, this report heavily emphasizes Central Florida in the United States, Saskatchewan, Canada and Brazil.

Our operations in Saskatchewan, Central Florida and Brazil work diligently to engage local communities. Mosaic's engagement within local communities includes monthly meetings with a series of CAPs, civic organizations, elected officials, civil servants and other opinion leaders. Mosaic reaches the broader community through print, broadcast, billboard and digital ads, news and social media outlets, direct mail, and public education initiatives. When the business plans to expand operations, we host community forums and participate in public hearings convened by local and regional governments.

ASSESSING OUR ENVIRONMENTAL IMPACT

Mosaic is committed to conducting and reporting the results of environmental impact assessments. In April 2013, the final Areawide Environmental Impact Statement (AEIS) on Phosphate Mining in the Central Florida District was released by the U.S. Army Corps of Engineers (ACOE) for public review. In August 2013, the AEIS for continued phosphate mining in the Central Florida Phosphate District was finalized. Administered by the ACOE in compliance with the National Environmental Policy Act, this process analyzed the environmental scope and potential impacts of phosphate mining in Central Florida.

Additionally, as it becomes available, information about our permit applications is posted online on microsites targeted to each permitting county in Central Florida. This transparency provides the public with a clearer view of the regulatory process for permitting and gives local residents the ability to communicate directly with the experts overseeing a given project.

The Mosaic Potash segment conducts regular environmental impact assessments, reporting the findings to the Saskatchewan Ministry of Environment. All environmental impact assessments have been submitted and approved to date. Additionally, the Mosaic Potash facilities in Saskatchewan conduct thorough biological assessments of proposed expansion sites, such as the assessments for the tailing expansion at the Colonsay and Esterhazy mines, as well as the K3 site at Esterhazy. Each of these assessments includes field surveys to identify rare species of plants and animals of special concern to determine if mitigation programs are required.

DEVELOPING AND CONSULTING IN OUR COMMUNITIES

Each year, Mosaic targets investing one percent of profits over a three-year rolling average into our communities. The Mosaic Company, The Mosaic Company Foundation and The Mosaic Institute in Brazil make investments in our global communities through philanthropic grants, employee engagement and in-kind donations. Combined contributions in 2017 reached more than \$12 million.

In 2017, Mosaic operations in Florida committed more than \$5.9 million, and operations in Saskatchewan committed more than \$2.9 million to enrich and improve communities where we have offices and operations.

Mosaic employs regional, full-time public affairs (PA) staff to support all communities where we have an operating footprint. Mosaic PA staff are committed to maintaining an open dialogue with the people in our communities, assessing local needs and building partnerships designed to improve community vibrancy for local residents.

Independent CAPs help facilitate this work. Underwritten by Mosaic, CAPs serve as a forum for open discussion among representatives of the local community, and provide a place for companies to discuss community response to industry developments and plans.

RECOGNIZING INDIGENOUS RIGHTS

In some locations, there are cultural implications to our business that Mosaic addresses through community engagement. Mosaic recognizes the significance of building relationships with First Nation and Métis organizations throughout Saskatchewan. For example, Mosaic partners with the Saskatchewan Indian Institute of Technologies' Mining Industry Prep Programs, which are based in Saskatoon, Yorkton and Regina, to prepare Saskatchewan's Indigenous workforce for careers in mining. We strive to be a thoughtful and engaged neighbor who invests carefully and generously, and, through working with First Nations and Métis communities, we identify strategic opportunities to target grant funding to initiatives and projects that are important to the growth and sustainability in the areas where we operate. In 2016, the potash business segment realigned aboriginal engagement internally by merging the function within Public Affairs in order to create a more holistic outreach approach. Today, our engagement with aboriginal communities blends community investment initiatives with information on career opportunities, environmental responsibility, and opportunities for suppliers by connecting one-on-one with aboriginal communities and organizations, ensuring the right connections within Mosaic are made.

ENGAGING OUR STAKEHOLDERS

Mosaic is committed to [stakeholder engagement](#) and public outreach efforts. Through face-to-face meetings, social media, government relations, facility tours and more, Mosaic connects with stakeholders to keep them well informed and engaged with our mission to help the world grow the food it needs.

- Mosaic employees conduct tours of mines and manufacturing facilities for local, state and federal elected officials and staff, customers, investors, students, community leaders, the media, and nonprofit and civic groups throughout the year.
- Mosaic has an engaged [social media presence](#) (Twitter, Facebook, YouTube). These media enable us to share information with the general public and engage in conversations about our business, making thousands of impressions on users and community members.
- Additionally, Mosaic manages micro websites in support of future permitting, with the goal of being transparent with the general public. These sites invite the public to be engaged with the permitting process, review maps of the proposed mining areas, ask an expert, and submit questions about our activities in and around their communities.
- In Canada, Mosaic is engaging the public in education on the importance of potash mining, fertilizer and global food security. In partnership with Saskatchewan Association of Ag Societies and Exhibitions, Mosaic is part of the “Food for Saskatchewan—Food for the World” educational display that tours the province. Mosaic’s own educational display was launched in 2014 and features interactive learning on Mosaic’s role in contributing to the province’s economy and the larger role of potash in feeding the world.
- Mosaic is committed to being an engaged business partner. Mosaic regularly engages its customers in crop nutrient education and business management principles through various events, such as Mosaic’s AgCollege, which hosts 250 of Mosaic’s strategic customers from the United States, Canada, Mexico, Argentina, Brazil, Australia, Chile, China and India for the premier education, personal growth and leadership development event for fertilizer retailers.
- As a member of The Fertilizer Institute, Fertilizer Canada, the Saskatchewan Mining Association and the Saskatchewan Potash Producers Association, Mosaic presents important information to government groups and decision-makers who directly impact operations, our current expansions, and our investments in our communities.
- Individually, Mosaic participates in ongoing consultation with both the provincial Government of Saskatchewan and the federal Government of Canada. Topics discussed with key stakeholders include the need for transportation infrastructure, regular consistency surrounding tax and the ability to work in partnership with the government to approach environmental sustainability.
- Stakeholders may reach Mosaic in several different ways:
 - Send comments or questions regarding this report to: mosaic.sustainability@mosaicco.com
 - Contact our Board of Directors via written communication in care of the General Counsel at the address of the Company’s executive offices, or by e-mail: directors@mosaicco.com

413-2 Operations with significant actual and potential negative impacts on local communities

Mosaic provides a great number of economic and social benefits to the local communities in which it operates. However, as with all mining activities, the extraction and beneficiation of phosphate and potash to meet the global demand for mineral fertilizer has the potential to cause environmental impacts. One such impact at our mining facilities in Central Florida is the loss of farm output due to farmland being used for mining. The AEIS noted that Mosaic's mining operations, as forecast for 2011 to 2050, will have a net positive economic impact on the local economy. Any economic effects from losses in farm output would be more than made up for by higher paying employment and economic activity resulting from mining.

Mosaic operates in a highly regulated and monitored industry. We work closely with state/provincial and federal officials on operations, expansions and sales to ascertain the environmental impact of industry activities on local communities. Through this collaboration, Mosaic has identified and implemented mitigation opportunities that safeguard local communities from potential negative impact. For more information on actual or potential impacts, please see the discussion of risk factors in our [Form 10-K](#), page 21.

MM6 Number and description of significant disputes relating to land use, customary rights of local communities and indigenous peoples

MM7 The extent to which grievance mechanisms were used to resolve disputes relating to land use, customary rights of local communities and indigenous peoples, and outcomes

In our Potash segment, there were no disputes related to the land use or customary rights of local communities and indigenous people in 2017.

We rely on numerous permit approvals to expand our operations or extend operations into new areas. Occasionally, counties and other parties oppose the issuance of some of those required permits by providing comments and live testimony at public hearings, or initiating administrative or legal action. We proactively engage in an interactive dialogue with stakeholders, including local communities and interest groups, through means such as our Internet site and community microsites, tours of plants and mines, community advisory panels, town halls, and/or open houses. When significant disputes arise—defined here, for our Phosphates segment, as administrative challenges to state-issued permits and litigation filed in federal and state courts—we resolve them through the appropriate channels.

For more information on operating requirements and impacts, and the phosphate mine permitting process in Florida, please see our 2017 [Form 10-K](#).

MM9 Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process

Mosaic's potash and phosphate operations are well established mining regions with 50-plus years of operations. Mosaic purchased private properties in the vicinity of our operations in 2017, but no resettlements of communities took place. Mosaic has community relations managers who ensure potential impacts from our operations are communicated effectively to community associations. Community relations managers also work in conjunction with our land management office to address any questions or concerns raised by the community. Our Potash segment's Land and Minerals Department works with individual landowners to ensure the appropriate level of consultation is employed, as is required by provincial legislation and internal policy.

MM10 Number and percentage of operations with closure plans

Mosaic's phosphate mining is a land intensive operation. As such, our mine sites have to go through a detailed permitting process that involves determination and approval of ultimate closure, post-closure care and/or reclamation of our facilities.

Mosaic has plans in place as required by governmental regulations for the closure and post-closure care of our phosphogypsum management systems at eight former and current phosphoric acid manufacturing plants in Florida and Louisiana. Similarly, Mosaic has plans in place as required by governmental regulations for the closure and post-closure care of all its Carlsbad and Saskatchewan mining operations.

For specific details on our estimated asset retirement obligations, refer to our [Form 10-K](#) (F-19).

Management Approach: Public Policy

As one of the world's leading crop nutrient companies, Mosaic has a responsibility to be actively engaged in the promotion of sound and sustainable public policies. We proactively educate all levels of our employees and government officials on the key issues our company and operations face, our value to operating communities, and our vital role in the world's food production.

Mosaic supports elected officials, candidates for public office, and political committees that are supportive of Mosaic's mission and share our views on important issues, such as maintaining a strong North American manufacturing and mining base, recognizing the importance of crop nutrients in maintaining domestic and global food security, and supporting reasonable science-based regulation with responsible environmental stewardship.

Mosaic is a member of organizations such as [The Fertilizer Institute](#), which represents the public policy needs of the fertilizer industry in the United States. Please see [102-12](#) and [102-13](#) for a list of the industry organizations of which we are members.

415-1 Total value of political contributions by country and recipient/beneficiary

Amounts of political contributions are reported based on when Mosaic issued the check, which in some cases may be in a different year than when the check was delivered and reported by the receiving candidate or organization. Contribution levels vary in accordance with election cycles in local and regional communities where we operate.

POLITICAL CONTRIBUTIONS (U.S. DOLLARS)

	2013	2014	2015	2016	2017
United States	195,423	154,400	217,139	230,570	252,050
Canada	5,800	1,200	9,936	48,630	11,400*

NOTE: United States political contributions include both "hard" and "soft" money donations, with contributions made from the Mosaic Company Political Action Committee (PAC) included in the United States total. 2017 in-kind donations for the United States totaled approximately \$7,200. *The Canada figures for 2017 were converted to USD using the currency exchange rate on December 31 of 2017. Since the figures were not converted on the actual date of the contribution, the amount in USD on the date of the contribution may differ slightly from what is reported here.

Management Approach: Customer Health and Safety and Marketing and Labeling

In December 2013, Mosaic's Belle Plaine facility received Product Stewardship Excellence certification from the International Fertilizer Association's (IFA) Protect & Sustain Product Stewardship initiative. This certification covers the product life cycle including: management systems, product development and planning, sourcing and contracting, manufacturing techniques, and supply chain to the customer.

Communications are directed up and down the value chain, such as supplier certification requirements as part of sourcing and procurement of inputs, (material) safety data sheets (M/SDS), labels, registrations, quality/traceability information, training and educational materials.

Mosaic's research and development processes include internal and external research and science-based data generation to advance product advocacy and customer results.

Finally, process improvements include an Environmental Health and Safety Management System that is aligned to ISO 14001/OHSAS 18001 and ANSI-10, enterprise mechanical integrity programs and contractor accountability programs.

We believe Mosaic's products are among the most responsibly sourced in the world, and we are committed to the sustainable manufacturing of our products. For example, in 2015, Mosaic developed improved raw material sourcing guidance for sulfuric acid and zinc to prevent contamination of our products with trace metals.

416-1 Assessment of the health and safety impacts of product and service categories

Mosaic has a dedicated agronomy team that conducts field trials to evaluate the performance of our products and promote and support 4R Nutrient Stewardship. In 2017, we conducted 410 small-plot trials in Argentina, Australia, Brazil, Chile, China, Canada, Europe, India, Northern Latin America (Mexico to Peru) and the United States.

EDUCATIONAL TOOLS

Mosaic supports an educational initiative to help the industry understand fertilizer best management practices as a way of reducing the impact of fertilizers on the environment.

CropNutrition.com is a resource for retailers, growers and media members seeking to better understand soil science, grow healthier crops, and increase productivity and yield—sustainably. Retailers and growers benefit from Mosaic sharing information that will allow them to think progressively about crop fertility.

INDUSTRY INITIATIVES

4R Nutrient Stewardship (4Rs) is about doing everything “right” in regards to applying fertilizer and effectively reducing agriculture’s potential for negative externalities. 4R Nutrient Stewardship encompasses science-based fertilizer best management practices to achieve specific cropping system goals, including environmental protection. To achieve those goals, the 4Rs framework promotes a focus on the Right nutrient source, at the Right rate, at the Right time, and in the Right place. Please see 4R Nutrient Stewardship for more information.

PARTNERSHIPS

Mosaic established and continues to fund the Mosaic Fertiliser Technology and Research Centre at the University of Adelaide, Australia. The centre focuses on soil chemistry and fertilizer technology, and uses the latest technology to develop innovative fertilizer formulations to improve nutrient use efficiency.

Mosaic also has a long-term partnership with a globally recognized plant nutrition expert at Sabanci University in Turkey, whose research focus is balanced crop nutrition and nutrient interactions conducted through greenhouse experiments.

417-1 Requirements for product and service information and labeling

One hundred percent of Mosaic’s products are subject to labeling requirements. We comply with safety, environmental, labeling and registration required by country and local governments where we sell and distribute fertilizer, animal feed and industrial products. Where United States standards are more stringent, we follow those more rigorous standards on the products that we produce both in the United States and for export.

Mosaic provides the required country, state and local product documentation for all shipments. This includes detailed labels, data specification sheets and a safety data sheet (SDS) for all products. These documents provide information about proper product handling, safety precautions and guaranteed analysis. Situations requiring disposal are also addressed in the SDS. For product undergoing vessel transport, the SDS includes certification that the discharge of cargo hold rinsate is not harmful to the marine environment.

As it relates to safe use of our products, Mosaic promotes customer education following the 4R Nutrient Stewardship framework of the Right nutrient source, applied at the Right rate, at the Right time and at the Right place. Our agronomists share this message worldwide

417-2 Incidents of non-compliance concerning product and service information and labeling

Mosaic has automated systems to manage, track and monitor incidents related to noncompliance with regulations and voluntary codes concerning product and service information and labeling. We are committed to quality and responsible labeling. We investigate all questions or claims about the labeling or guaranteed analysis of our products and work with the customer and/or appropriate agency to resolve any claims that arise. In 2017, the sum of claims that resulted in penalties totaled less than \$5,000.

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We support and promote 4R Nutrient Stewardship:
Right Source, Right Rate, Right Time, Right Place.