ESG 2021 ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT



Nutrien

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How we manage environmental impacts of our operations and provide solutions for global challenges. See **page 14**

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ESG RATINGS PROFILE

| / Rating Scale / | Nutrien's Score | | |
|-----------------------------------|--|--------------|--|
| | 2020 Score | 2019 Score | |
| CCC to AAA | А | A | |
| D- to A | В | D | |
| D- to A | В | (not scored) | |
| 0 (worst) to 100 (best) | 63 | 46.9 | |
| 0 (low risk) to 100 (severe risk) | 35.7 | | |
| D- to A+ | C- | D+ | |
| 0 (worst) to 5 (best) | 3.4 | 2.8 | |
| | CCC to AAA D- to A D- to A O (worst) to 100 (best) O (low risk) to 100 (severe risk) D- to A+ | CCC to AAA | |

NOTE: These ratings reflect the extent of our ESG disclosure, not the quality of disclosed information or our ESG performance. Where possible, we have addressed reporting gaps in this report.



Sustainability Yearbook Member 2021

S&P Global

"We congratulate Nutrien for achieving a place in The Sustainability Yearbook 2021. With over 7,000 companies assessed, an inclusion in the yearbook is a true statement of corporate sustainability excellence."

- Manjit Jus, Global Head of ESG Research, S&P Global

AVERAGE ESG RATING IMPROVEMENT (2019 VS. 2020, INCLUDES ESG RATINGS FROM KEY ORGANIZATIONS THAT GIVE A NUMERIC SCORE)

S&P GLOBAL **SUSTAINABILITY YEARBOOK** MEMBER 2021

GLOBAL COMPACT **NETWORK CANADA SDG ACCELERATOR** 2020 AWARD

BASF CANADA 2021 CUSTOMER SUSTAINABILITY AWARDS

SUSTAINABILITY CHAMPION SDG LEADERSHIP AWARDS

LETTER FROM THE PRESIDENT & CEO



On behalf of Nutrien, I am proud to share with you our 2021 Environmental, Social and Governance (ESG) report. Never in our lifetime has a year demonstrated more clearly the need for ESG considerations to be at the core of every business. We navigated a global pandemic and witnessed a global civil rights movement, all while maintaining momentum and focus on the urgent need for food security and climate action.

We've been reminded that a sustainable, inclusive and resilient food and agriculture system is vital to the future of humanity. At Nutrien, our purpose and strategy are centered on our commitment to ESG principles, and the events of 2020 reinforced the importance of that approach. We strive to be a company that does important work and has a positive impact on the world – and in the face of adversity, we've increased our focus on innovation, integrity and collaboration.

OUR COVID-19 RESPONSE

Every sector of the global economy has been impacted by the COVID-19 pandemic in some way. I'm proud of our company, the agriculture sector and particularly the world's growers for the incredible resilience they've demonstrated, resulting in minimal disruptions to the food brought to all of our tables.

However, the global community faced some significant challenges. Vital charitable organizations like food banks were stretched to the limit. Many were at risk of closing their doors

due to an unprecedented increase in demand, combined with additional expenses from operating safely in pandemic conditions. In response, Nutrien donated \$2 million to food solutions, supporting more than 200 organizations in need. We also encouraged employees to take up to five paid days off to safely volunteer in their community and distributed more than 112,000 N95 masks and 43,000 surgical masks to the health care system.

From a business perspective, our status as an essential service in our core markets was critical. We leveraged our fully integrated ground-to-grower business model to ensure we continued to supply customers with the inputs and services they required, and our Nutrien Ag Solutions digital hub allowed growers to interact with us online, enabling reduced in-person contact. We have also operated safely during the pandemic – we avoided any major business impacts, and we have supported our employees with continuity in employment, the ability to work from home productively and safely, and supportive human resource policies.

LETTER FROM THE PRESIDENT & CEO (CONTINUED)

There's a long road ahead, but we need to take immediate action. Our mission moving forward is to create long-term value with measurable outcomes that drive sustainable, climate-focused, inclusive agriculture.

RAISING THE BAR

Nutrien made significant strides on ESG performance in 2020. One of the most important changes we've made is to increase focus on climate opportunities while mitigating climate risks. Fertilizer accounts for half of the world's crop yields, so it is critical we address emissions from production and use. Agriculture has a significant role to play in delivering the natural climate solutions that are critical in our journey to a net zero world.

In this report, you'll read about our actions to improve our ESG performance. Here are some of the areas where we've improved over the past 12 months:

- We issued our first-ever ESG report in April 2020, to increase transparency and create broader awareness of our developing climate strategy. This resulted in an approximate 20 percent improvement in our overall ESG ratings and substantial progress compared to our peer groups.
- We enhanced our approach to governance, instituting an executive-level ESG & Strategic Issue Governance Committee for corporate oversight on key ESG issues. At the Board level, we have refocused our Safety, Health, Environment and Security Committee into a Safety & Security Committee.
- We developed key ESG-related goals and targets to drive organizational performance in the near and medium term that focus on our identified key material topics.
- We introduced the industry's most comprehensive Carbon Program, incentivizing growers to adopt sustainable agricultural practices that help reduce their own greenhouse gas ("GHG") emissions and increase carbon seguestration in their soils.
- We highlighted our approximate 1 million tonnes of blue/lowcarbon ammonia production capability and are expanding our production of sustainable products. In addition, we are further

- reducing our carbon footprint through energy use efficiency and abatement projects across our nitrogen, potash and phosphate operations.
- · We established an Inclusion Council comprising senior operational and functional leaders from every Nutrien business unit and geography, to drive equity, diversity and inclusion across Nutrien.

FEEDING THE FUTURE

While our progress has been significant, there's still a lot to do, and our accomplishments in 2020 are only the start of our long-term aspirations. The roadmap that will guide our journey comes in the form of our new Feeding the Future <u>Plan</u>. While this report outlines our ESG performance over the past 12 months, the Feeding the Future Plan highlights our commitments to achieve by 2030 and our contribution to the United Nations Sustainable Development Goals ("SDGs"). Within the plan, we've identified six specific commitments we're making as a company to transform agriculture while addressing both environmental and social outcomes.

There's a long road ahead, but we need to take immediate action. Our mission moving forward is to create long-term value with measurable outcomes that drive sustainable, climatefocused, inclusive agriculture. These efforts are fundamental to growing our world from the ground up.

Chuck Magro President & Chief Executive Officer **April 2021**

ABOUT NUTRIEN

Nutrien is the world's largest provider of crop inputs and services, playing a critical role in helping growers increase food production in a sustainable manner. We have four reportable operating segments: Nutrien Ag Solutions ("Retail"), Potash, Nitrogen and Phosphate. The Retail segment distributes crop nutrients, crop protection products, seed and merchandise, and it provides services directly to growers through a network of farm centers in North America, South America and Australia. The Potash, Nitrogen and Phosphate segments are differentiated by the chemical nutrient contained in the products that each produces. In 2020, we produced and distributed 27 million tonnes of potash, nitrogen and phosphate globally and had Retail sales of \$14.8 billion at over 2,000 locations worldwide.

With this capability and our leading agriculture Retail network, we are well positioned to supply the needs of our customers. We operate with a long-term view and are committed to working with our stakeholders as we address economic, environmental and social priorities. The scale and diversity of our integrated portfolio provides a stable and resilient earnings base, multiple avenues for growth and the opportunity to return capital to shareholders.



Significant Changes in 2020

COVID-19 PANDEMIC

 Nutrien implemented modified business continuity plans to address the risks of COVID-19 across our operations. Read more here.

RETAIL NETWORK EXPANSION

- Nutrien acquired Agrosema
 Comercial Agricola Ltda.
 ("Agrosema") and Tec Agro Group
 ("Tec Agro") agriculture retailers
 in Brazil, each with over 25 years
 of experience and a combined
 20 farm centers.
- We renamed Nutrien Ag Solutions in Brazil to Nutrien Soluções Agrícolas to show respect to the Portuguese idiom, Brazilian
- culture, language, customers and employees, and to better connect local farmers to Nutrien's mission and offerings.
- Nutrien acquired Agbridge, a wireless data transport system that enables efficiencies, productivity and real-time information transfer between equipment, advisors and growers. Read more here.

CLOSURES/DIVESTITURES

 We sold our 26 percent equity position in the Misr Fertilizers Production Company S.A.E. ("MOPCO") nitrogen facility in Egypt.

At Nutrien, our purpose is to grow our world from the ground up, and we're raising expectations of what an agriculture company can be.

Nutrien is a global agricultural solutions provider with a unique platform for generating growth and value. Our integrated business model and purpose-driven culture mean that, from the bottom of the mine to the top of the silo, our employees around the world are committed to feeding the future safely and with integrity each day. We are committed to continuous improvement of our environmental performance and we champion diversity and inclusive growth in the agriculture industry.

FERTILIZER STORAGE AND MINING **PRODUCTION TRANSPORTATION** RETAIL 12.6MMT **POTASH** CROP NUTRIENT SALES MINES CENTERS **6.1**MMT **PHOSPHATE** GROSS PRODUCTION BASIS MINES **PRODUCTS** ~21% PHOSPHATE (P,O,) OF GLOBAL **OWNED AND LEASED** (Excludes Redwater) WORLDWIDE POTASH CAPACITY RAILCARS 23,100 **COUNTRIES** IN SALES

All figures as of December 31, 2020

ADJUSTED EBITDA BY BUSINESS UNIT

PROPERTY, PLANT AND EQUIPMENT

36 Retail 30 Potash

28 Nitrogen 6 Phosphate

52 Machinery and equipment

32 Buildings and improvements

6 Assets under construction Land and improvements 4 Mine development costs

1,200 US

~425 Australia

~295 Canada

~110 South America

PERMANENT EMPLOYEES

(%)

2020

2020

RETAIL LOCATIONS

(number of locations)

2020

GROWER ACCOUNTS WORLDWIDE

Social

2020 At A Glance

| | 2020 Performance | 2019-2020 Change | 2020 Highlights | / Read more |
|---------------------|--|---------------------|--|-----------------|
| | 3.2 million tonnes Scope 1 and 2 carbon dioxide quivalent (CO ₂ e) associated with crop input production | ↓ 1% | Set a target to reduce operational GHG emissions intensity by 30 percent by 2030, compared to our 2018 baseline. Launched our Carbon Program to partner directly with growers while supporting sustainable agriculture and enhancing grower profitability. | 15-16, 22-24 |
| 1. | 0 million tonnes carbon dioxide (CO ₂) captured | ↓ 17% | Approximately 1 million tonnes of blue/low-carbon ammonia¹ production capability annually. | 20 |
| | 1 million tonnes of environmentally smart roducts (ESN and DEF) sold | 1 8% | Sales of our Environmentally Smart Nitrogen ("ESN") and diesel exhaust fluid ("DEF") products in 2020 grew by 8 percent as compared to 2019. | 29 |
| 2: | 38 million m³ water withdrawn | 1 10% | Less than 2 percent of our freshwater consumption is from areas with higher water stress. | 37 |
| | 7 million tonnes of total waste and byproducts sposed of | † 1% | Continued plastic reuse and recycling at our Retail facilities. In Australia, we own more than 60,000 reusable drums and now participate in a drum leasing program. In Canada, we recycled more than 210,000 kg of used containers through Cleanfarms in 2020. | 44 |
| 0. | 25 total lost-time injuries per 200,000 hours worked | ↓ 26% | Supported and prioritized worker health and safety during the COVID-19 pandemic, achieving one of the best health and safety records in the industry. | 50 |
| (d | 9% of senior leadership positions are held by women irector level and above) | ↑ 4% ² | Established a global Inclusion Council of senior operational and functional leaders from each business unit and geography, sponsored by our President & CEO. | 59 |
| | 6 hours per employee of annual learning and evelopment on average | 1 44% | Implemented a new learning management system to enhance employee educational experiences and opportunities. | 62 |
| \$2 | 27 million procured from Indigenous businesses | ↓ 5% | Provided guidance for our suppliers to build meaningful relationships with Indigenous partners through our <u>Indigenous Content Playbook</u> . | 66 |
| | % of our total Nutrien sales contain genetically odified organisms ("GMO") | = | Developing a holistic risk-based product rating approach to create impact profiles for our fertilizer manufactured products. | 68 |
| NCE 30 | 6% of Board members are women | 1 3% | Renamed our Safety, Health, Environment and Security Committee to Safety & Sustainability ("S&S") Committee, with a new Chair. | 73 |
| GOVERNANCE B B S | II employees received Code of Ethics training | = | Continued to foster and normalize discussions about Nutrien's core value of integrity in our everyday work with our Integrity Moments initiative. | 76 |
| Ο, | 750 employees participated in focused /bersecurity training for higher-risk business areas | † 11% | Trained employees and contractors on phishing attacks and cybersecurity during the elevated cyberthreat landscape due to the COVID-19 pandemic. | 78 |

¹ Ammonia produced primarily utilizing carbon capture, utilization and storage ("CCUS") or other low-emission production technologies to significantly reduce the carbon intensity of resultant production; this definition does not include end product use.

² Percent variance for this metric is based on a percentage point change from 2019.

⁼ no change

OUR 2030 SUSTAINABILITY COMMITMENTS

Our <u>Feeding the Future Plan</u> will help advance our industry and world forward – today and for generations to come. By the year 2030, we aim to make key transformations through ambitious commitments that drive systemic change and lead the next wave of agricultural evolution.





OUR GLOBAL IMPACT



FEEDING THE PLANET **SUSTAINABLY**

Strengthen food security by scaling sustainable and productive agriculture.



Provide solutions and platforms

to achieve emissions reductions in alignment with climate science.



INCLUSIVE AGRICULTURE

Support rural livelihoods and increase participation of underrepresented stakeholders in agriculture.

How we're doing it

ENABLE

Enable growers to adopt sustainable and productive agricultural products and practices on 75 million acres globally.

LAUNCH AND SCALE

Launch and scale a comprehensive Carbon Program, empowering growers and our industry to accelerate climate-smart agriculture and soil carbon sequestration while rewarding growers for their efforts.

ACHIEVE

Achieve at least a 30 percent reduction in GHG emissions (Scope 1 + 2) per tonne of our products produced.1

INVEST

Invest in new technologies and pursue the transition to low-carbon fertilizers, including blue and green ammonia.

LEVERAGE

Leverage our farm-focused technology partnerships and investments to drive positive impact in industry and grower innovation and inclusion.

CREATE

Create new grower financial solutions to strengthen social, economic and environmental outcomes in agriculture.

ESG Performance Goals and Targets

In 2021, Nutrien leadership established several ESG goals and targets that support our 2030 commitments. These goals and targets are representative of key issues that we aim to improve upon, and we will communicate our performance annually. They are tied to specific material ESG issues throughout this report along with major ESG reporting frameworks we have implemented. We may revise and add to our goals and targets as our operating context evolves and additional commitments are developed in the future.

Key ESG Goals and Targets for Nutrien

ENVIRONMENT



SOCIAL



GOVERNANCE



CLIMATE CHANGE

- Reduce GHG emissions in nitrogen production by one million tonnes CO₂e by the end of 2023
- Deploy self-generated wind and solar energy at four potash facilities by the end of 2025

WATER

 Complete a watershed risk assessment of our production sites in 2021 to inform context-based operational water targets by 2023

ENVIRONMENTAL INCIDENTS

 Develop Loss of Containment ("LOC") reduction strategy and provide related target by 2023

WASTE

 Develop Retail's plastic recycling strategy and set a target by 2022

BIODIVERSITY

 Determine how digital on-farm tools can identify and track opportunities to enhance biodiversity conservation on agricultural landscapes by 2023

EOUITY, DIVERSITY AND INCLUSION

- Women comprise no fewer than 30 percent of the Board of Directors (maintain annually)
- 30 percent women in leadership (director and above) by 2025
- By 2025, 25 percent of local spend in our potash business has direct Indigenous economic impact and, annually, 100 percent of contracted potash suppliers have local Indigenous inclusion commitments

PRODUCT STEWARDSHIP

 Complete risk evaluation profiles of NPK (fertilizer) manufactured products by 2023

WORKPLACE SAFETY

- Achieve top-quartile safety performance across all business units by end of 2025
- Zero Serious Injury and Fatality ("SIF") incidents annually
- Expand safety coaching into performance conversations for all employees by 2022

COMMUNITY INVESTMENT AND RELATIONS

- Develop and implement a targeted approach to measure the impact of our sustainability and community investments by 2023
- Employees volunteer at least 25,000 hours by 2025

INTEGRITY

- All employees, directors and officers complete mandatory Code of Ethics training annually
- Zero-tolerance policy for corruption and bribery as well as anti-competitive practices

CYBERSECURITY

 Host quarterly education and training on cybersecurity for our community partners and stakeholders

"Establishing goals and targets

related to our key ESG material

topics will drive resiliency across

Nutrien and deliver long-term

Chuck Magro, President & CEO

value to our stakeholders."

ESG MANAGEMENT APPROACH

We believe that managing ESG impacts contributes to long-term value creation, protects our reputation, enhances our resilience and helps future-proof our business.

In 2020, we enhanced our ESG management framework by incorporating the sustainability function under our corporate development and strategy portfolio, and we are planning further integration of ESG into our existing Enterprise Risk Management ("ERM") and operational processes. We continue to tie a component of leadership compensation directly to Nutrien's

ESG performance to demonstrate our focus on key ESG risks and progress across our sustainability strategic pillars.

This report is designed to provide our investors and other stakeholders with information about how Nutrien manages relevant ESG topics. Our ESG management and reporting approach centers on six key principles:

Considering industry risks

We evaluate how industry risks can impact our success as a company. We participated in the *World Business Council for Sustainable Development's* ("WBCSD") industry-wide Dynamic Risk Assessment to better understand the emerging trends, risks and opportunities stemming from forces internal and external to the food and agriculture sector.

Listening to stakeholders

We proactively and regularly engage with our key stakeholders to identify and address their concerns and communicate the long-term value opportunities associated with our business plans. We incorporate stakeholder feedback into our reporting and actions. Our efforts are meant to address what matters most to our stakeholders. Read more here.

Implementing ESG reporting best practices

Our ESG report is informed by best practices from the WBCSD ESG Disclosure Handbook, and recommendations from the Sustainability Accounting Standards Board ("SASB") and the Task Force on Climate-Related Financial Disclosures ("TCFD"). Nutrien has aligned climate-related disclosures with the GHG Protocol Corporate Accounting and Reporting Standard. In addition, our disclosures are informed by the Global Reporting Initiative ("GRI").

Focusing on material topics

We focus our reporting on the ESG topics representing the key material risks and opportunities for our business. Materiality is used in a sustainability context for this report and refers to our ESG priorities as determined within the frameworks used and with input from our stakeholders.

Monitoring global trends

As an international company working in a globalized industry, we are informed and responsive to environmental and social trends, as this is a key part of our risk management process and necessary to achieve our long-term vision. Our ESG strategy supports the SDGs. Read more here.

Reporting scope and boundary

This report focuses on Nutrien's material ESG topics, performance and key initiatives for the fiscal year ending December 31, 2020. Read about our most relevant ESG topics here. Data included in our reporting relates to our operations whereby we have operational control, unless otherwise noted. Reports from previous years and supplementary ESG information are available on our website.

Frameworks Used ¹

SASB disclosure for the chemicals and mining standards are tagged throughout the report, with an index table in Additional Content

Index

page

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page

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page

<u>link</u>

GRI Index is included in Additional Content

TCFD disclosures are tagged throughout the report, with an index table in Additional Content

The International Business Council **Stakeholder Capitalism** index table is included on our website

1 The listing of these organizations does not imply endorsement or approval of this report.



WE WELCOME AND VALUE YOUR FEEDBACK ON THIS REPORT AND ALL OF OUR SUSTAINABILITY AND ESG INITIATIVES.

PLEASE CONTACT US AT: SUSTAINABILITY NUTRIEN.COM OR INVESTORS NUTRIEN.COM

Material ESG Topics

We are developing an enhanced materiality process that merges strategic issues management with our existing ERM processes and includes a more formal and structured governance framework. We use a four-step process beginning with identifying and tracking, assessing both financial and non-financial factors, validating internally, and concluding with communication and reporting. The process leverages qualitative and quantitative tools to help determine stakeholder expectation and potential risk or opportunities for Nutrien.

We classify our material topics into three levels to reflect the degree of associated risk and the amount of coverage in this report. Each topic includes a number of subtopics and related metrics. Level 1 topics represent Nutrien's most significant ESG-related risks and opportunities, and we provide the most extensive content on them. We include less content on Level 2 and 3 topics due to the reduced risk or opportunity they present relative to Level 1 topics.

We reassess Nutrien's material ESG topics annually. In 2020, we began with our previous material ESG topics list and completed the following process:

| STEP 1 Identify ¹ | | | STEP Assess and F | | STEP 3 Validate | STEP 4 Communicate ESG Report Coverage | |
|---|---|---------------------------|---|--|----------------------------------|---|--|
| Stakeholder surveys and engagement | Potential to affect Nutrien's value. | SASB Five Factor test | LEVEL 1 | Risks that can have broad impact on financial performance, operations or reputation or have legal implications Significant interest to stakeholders | | Extensive discussion of management approach Data in graphics Performance discussion | |
| Digital stakeholder and reputation | reputation • Regulatory | environment | nvironment | and opportunities for Nutrien for which we expect to set targets Significant environmental or social | • Internal cross- | Discussion of | |
| • Of interest to stakeholders ESG frameworks • Relevant across | • Industry and peer benchmarking | LEVEL 2 | impact resulting from Nutrien's operations • Of high interest to stakeholders, | functional working group review | management approach • Data | | |
| (SASB, TCFD) and surveys | food, agriculture and mining industries | and mining with Nutrien's | with Nutrien's ERM risk | lenders and potential investors • Additional or emerging topics where | Senior leadership review | Performance discussion Brief discussion of | |
| Megatrends analysis | | | | Requested by frameworks or rating agencies but may not represent significant risks or opportunities | | Position or clarification Data in performance table only | |

¹ These criteria align with SASB's criteria for a material topic.

ESG MATERIAL TOPICS AND BOUNDARIES ACROSS NUTRIEN'S VALUE CHAIN

Nutrien's material ESG topics can have impacts beyond our own operations. We recognize that each of the topics can have impacts broadly, but the table below depicts where impacts related to our most relevant topics predominantly occur.

| | | | / Upstream Indirect | / | Direct C |)perations | | Downstream / Indirect | / |
|---------|-------------|-----------------------------------|---------------------|--------|---------------|----------------------------|--------|--------------------------|--------------|
| | Value Chain | | / Sourcing / | Mining | Manufacturing | Distribution and Logistics | Retail | / Product Use / | Read more |
| | | Climate-related risks | • | | • | | | • | 26 |
| | ment | GHG emissions and energy use | • | | • | • | | | 15 |
| Level 1 | nviror | Soil health | | | | | | • | 27 |
| 17 | E | Environmental impacts of products | | | | | | • | 31 |
| | Social | Worker health and safety | | • | • | • | • | | 50 |
| | So | Equity, diversity and inclusion | • | • | • | | • | | 59 |
| | | Water the contains | | | | | | | 26 |
| | nment | Water stewardship | | • | | | | | 36 |
| | 9 | Biodiversity | | • | | | | | 39 |
| | Envi | Waste | | | | | • | | 42 |
| | | Tailings and gypstacks | | | | | | | 43 |
| Level 2 | | Human capital | | • | • | | | | 61 |
| 7 | Social | Community relations | | • | • | | • | | 63 |
| | So | Responsible supply chain | • | | | | | | 65 |
| | | Product responsibility | | | | | • | • | 67 |
| | ance | Integrity | • | • | • | • | • | • | 76 |
| | Govern | Cybersecurity and data privacy | | | | | • | • | 78 |
| el 3 | onment | Air quality | | | • | | | | 45 |
| Level 3 | vironi | Remediation | | • | | | | | 45 |
| | En | Reclamation | | • | | | | | 45 |

Interactions With Stakeholders in 2020

We regularly engage with stakeholders to better understand factors they believe are critical for Nutrien and the agriculture industry.

| Stakeholder | Priorities and Themes Identified in 2020 | How Nutrien Responded | | | | |
|--------------|--|---|--|--|--|--|
| Communities | Urgent requests from food banks, schools, shelters and senior centers for emergency funds due to the COVID-19 pandemic Urgent requests for masks and personal protective | We provided approximately \$2 million to Nutrien communities focusing on addressing hunger and food security. Read more here. We provided more than 112,000 N95 masks to health care facilities, and more than 43,000 surgical masks and other PPE to communities, along with computers and computer accessories at some location | | | | |
| | equipment ("PPE") during supply shortages early in the pandemic | to support online learning for children. | | | | |
| Customers | Customer health and safety due to the COVID-19 pandemic | Throughout the COVID-19 pandemic, we prioritized safety for our customers and partners. Read more <u>here</u>. | | | | |
| | Need for digital retail capabilities to facilitate efficient delivery of products, services and solutions | Our digital platform experienced significant acceleration of adoption and usage in 2020, surpassing \$1.2 billion in sales. In 2020, we launched programs that facilitate climate-smart products and sustainable practices. Read more here. | | | | |
| | Rising demand for sustainability-focused products and services | | | | | |
| | Inefficiencies due to the continued use of multiple legacy systems for processing orders and invoicing | • We rolled out an app to help our Sales Managers deliver better service to our customers across systems, plus a new online platform called 'Nutrien Experience' to allow seamless customer interactions. | | | | |
| Employees | Workplace health and safety due to the COVID-19 pandemic | Throughout the COVID-19 pandemic, we prioritized the safety and well-being of our employees, both a the workplace and at home. Read more here . | | | | |
| | Nutrien's support of equity, diversity and inclusion | • EDI is a key part of Nutrien's sustainability strategy. Read more <u>here</u> . | | | | |
| | ("EDI") internally and in our communitiesNeed for increased employee communications | Nutrien's Executive Leadership Team ("ELT") hosted numerous virtual townhall sessions with livalong with an intranet page of common Q&As. Read more here. | | | | |
| Shareholders | Nutrien's long-term ESG strategy | • Nutrien's ESG strategy supports the SDGs and the Paris Agreement on climate change. Read more <u>here</u> . | | | | |
| | Governance measures and accountability for leading | Our executive compensation is tied to specific ESG targets. Read more here. In 2020, Nutrien launched a unique Carbon Program that is expected to drive a step change in agricultural sustainability and improved carbon management. Read more here. | | | | |
| | ESG progress | | | | | |
| | Need to improve environmental impacts well beyond GHG reductions in our own operations | | | | | |
| Society | Conducted third-party interviews with more than 25 stakeholders from non-governmental organizations ("NGOs"), civil society, academia and the private sector for their feedback and expectations | The stakeholder input and insights helped shape our <u>Feeding the Future Plan</u> , which contains ambitious commitments focused on long-term agricultural transformation, to achieve by the year 2030. | | | | |
| Suppliers | Need for better alignment and establishment of | We developed Nutrien's guiding principles for supplier engagement. | | | | |
| - | long-term supplier relationships with Nutrien | We continued to support our suppliers in building meaningful relationships with Indigenous partners | | | | |
| | Need for enhanced visibility of our critical inbound materials | through our <u>Indigenous Content Playbook</u> . | | | | |
| | inbound materials | We maintain daily open channels of communication with our key suppliers and their key suppliers to ensure coordination during the COVID-19 pandemic. | | | | |

Megatrends Shaping Our Actions

As part of Nutrien's long-term vision and risk management, we actively track key environmental and social megatrends that could directly or indirectly affect the agriculture industry.

These trends are interrelated and provide Nutrien with the opportunity to advance sustainable global food production through our unique relationship with growers. For example, we can facilitate the adoption of new technologies and farming practices to increase yields, while also focusing on soil health and environmental sustainability.



With another 2 billion people expected to be added to the global population over the next 30 years, producing enough nutritious and accessible food is expected to strain existing resources. Current food system transformation efforts are focused on the dual challenge of producing more food while protecting and restoring natural ecosystems.

Risk: If current production systems are not able to increase agricultural yields to meet future food demand without expansion of agricultural land, we will place increased pressure on global ecosystems and could further affect our ability to achieve food security.

Opportunity: We can use our expertise, products and influence to transition to a food system that protects biodiversity, nourishes soil, sequesters carbon and stewards water resources while boosting crop yields.

Through our award-winning digital technology, agronomic experts and services, and wide breadth of products, we help growers increase input efficiency and boost yields, potentially reducing production variability and increasing the reliability of food supply. Our sustainable solutions and carbon pilot projects are designed to develop customized, scalable solutions.

Soil health, climate-related risks, biodiversity, water stewardship



Weather patterns are increasingly difficult to predict, and extreme weather events are becoming more frequent and severe, while regulatory policy and technological responses are rapidly evolving. Societal decarbonization goals to mitigate climate change put pressure on us and our growers to reduce GHG emissions.

Risk: Climate-related factors related to temperature and precipitation volatility can physically impact Nutrien's operations, supply chain and our customers. Regulatory changes to reduce carbon from industrial activity could have financial and operational implications for our company and our customers.

Opportunity: We provide products, management practices and services that enable soil carbon sequestration and reduce field-level GHG emissions. We have onstaff meteorologists who provide growers and employees with world-class weather reports and forecasts. We also offer digital technology that helps growers monitor and track sustainability outcomes.

We launched a unique Carbon Program that is expected to drive a step change in agricultural sustainability and improved carbon management. We set a Scope 1 and 2 GHG intensity reduction target of 30 percent by 2030 compared to our 2018 baseline while engaging in nitrogen and potash production projects that reduce emissions and increase efficiency.

Climate-related risks, GHG emissions and energy use, soil health



Data, Technology and Transparency

Agriculture and food systems are undergoing rapid, complex and disruptive technological changes. Individuals and businesses have access to unprecedented amounts of data and information. Stakeholders increasingly expect companies to be transparent regarding their business practices.

Risk: New digital services being offered by Nutrien Ag Solutions for growers will likely result in increased data management and digital interactions. The increasing need for improved data and supportive technological infrastructure requires rapid development, implementation and end-user uptake. The supply chain, from growers to consumers, will require sufficient incentives to adopt new practices and develop the infrastructure to credibly make sustainability claims.

Opportunity: We can work with industry partners and performance data to develop leading technologies and support for our growers to boost productivity and profitability and measure progress, while providing increasing transparency in the supply chain. Our Carbon Program and its associated digital hub are expected to also support our grower customers and supply chain partners in this effort.

Our grower customers can use Nutrien's digital solutions to inform their decisions and communicate soil and production data to their value chain partners. We engage with stakeholders through local partnerships and have created youth education programs to teach the public about sustainable agriculture and environmental stewardship.

Cybersecurity and data privacy, integrity, community relations

Changing Farm Socioeconomics

Highly variable commodity prices and yields can put significant financial pressure on growers. Growers have little influence over the price of their crops or the cost of crop inputs, making their incomes highly sensitive to swings in agricultural commodity prices.

Risk: Farmers are dealing with increasingly capital-intensive operations. In addition, new labor and regulatory requirements such as potential nutrient application regulations may be barriers for applying best practices to optimize yields.

Opportunity: We can work with our grower customers to increase crop input efficiency and implement best-in-class agronomic practices to achieve optimal productivity and sustainable grower economics. We can improve financial performance with technical and financial options that help them adapt to changing market and regulatory conditions.

Our Retail business provides agronomic expertise and options to manage a grower's risk, maximize productivity, and support transitions through demographic and global shifts. We are enhancing our service offerings to focus on efficient application of inputs. We also provide grower credit through Nutrien Financial.

Environmental impacts of products, product responsibility

What is the risk or

ENVIRONMENT

TOPICS IN THIS SECTION

- 15 Climate Change and GHG Emissions
- 27 Soil Health
- 31 Environmental Impacts of Products
- 36 Water Stewardship
- 39 Biodiversity
- 42 Waste and Tailings
- 45 Additional Environmental Topics

We are committed to reducing the environmental impacts of our operations on air, land and water, and developing products and innovative solutions that help growers tackle the environmental challenges facing the agriculture industry.



CLIMATE CHANGE AND GHG EMISSIONS

STRATEGIC SDGS





Why is this topic relevant to our business?

The potential impacts from climate-related risks are significant to Nutrien and have been identified as a top ESG-related concern by our stakeholders. We are focused not only on reducing the carbon footprint of our fertilizer production (primarily nitrogen), but also partnering with growers to deliver natural climate solutions and sustainably increase crop yields while reducing GHG emissions and sequestering more carbon in the soil.

Key climate-related ambitions:

2030 Commitments

- Launch and scale a comprehensive Carbon Program, empowering growers and our industry to accelerate climate-smart agriculture and soil carbon sequestration while rewarding growers for their efforts
- Achieve at least a 30 percent reduction in GHG emissions (Scope 1 + 2) per tonne of our products produced, from a baseline year of 2018
- Invest in new technologies and pursue the transition to low-carbon fertilizers, including blue and green ammonia

ESG Performance Goals/Targets

- Reduce GHG emissions in nitrogen production by one million tonnes CO₃e by the end of 2023
- Deploy self-generated wind and solar energy at four potash facilities by the end of 2025

Nutrien's Climate Action

In early 2021, we announced our Feeding the Future Plan and related commitments to help address our key climate-related risks related to climate change and reduce our carbon footprint. The commitments cover our GHG emission value chain with a focus on decreasing emissions directly related to our operations while supporting growers with products and services to store more carbon in their soil. As a diversified company both globally and in the products and services we sell, making these commitments further supports our resiliency and will drive long-term value for all stakeholders. To learn more read Nutrien's Feeding the Future Plan.

By helping grower customers focus on soil health, we reduce grower exposure to impacts from climate change. Targeting emission reductions also addresses a key transition risk in our fertilizer operations related to regulations and existing and potential regional carbon taxes.

Nutrien is committed to GHG emission reduction and supports the goals of the Paris Agreement. This is demonstrated by our 30 percent targeted reduction in operational GHG emissions intensity by 2030 and through our commitment to the Science Based Targets initiative ("SBTi") to set a science-based target. To set a science-based target, Nutrien has engaged with the WBCSD and industry peers to develop a sectoral decarbonization approach ("SDA"). A SDA is one of three possible methods for setting a science-based target. Nutrien is also actively building a pathway for low-carbon nitrogen fertilizer production.



- ✓ TCFD Strategy a) b)
- ✓ TCFD Metrics and Targets a) c)
- ✓ SASB RT-CH-110a.2
- ✓ SASB EM-MM-110a.2

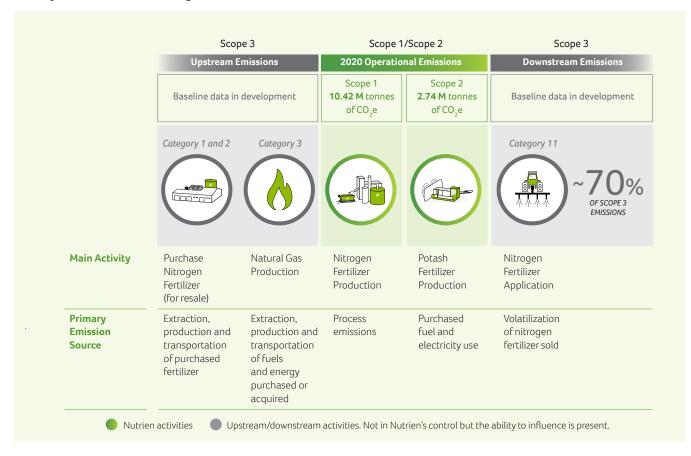
Environment Governance

CLIMATE CHANGE AND GHG EMISSIONS (continued)

To achieve our 30 percent operational emission intensity target, we estimate capital investment requirements in the range of \$500 million to \$700 million by 2030, with most projects meeting our minimum return requirements without a significant cost of

carbon assumption. Going forward, we may deploy additional emissions abatement projects as the compliance landscape evolves and the direct and indirect costs of carbon to our business rationalize incremental capital investment.

Primary Emissions Sources Along Nutrien's Value Chain





✓ TCFD Metrics and Targets b) c)

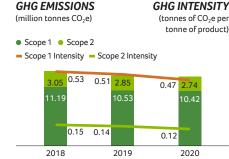
✓ SASB RT-CH-110a.2

✓ SASB EM-MM-110a.2

2021

CLIMATE CHANGE AND GHG EMISSIONS

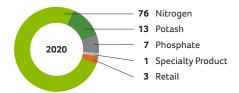
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Our emissions are decreasing slightly but relatively constant from 2018 to 2020 due to typical variations in production and maintenance activities at our production facilities.

GHG EMISSIONS BY BUSINESS UNIT

(% of total Scope 1 and 2 emissions)



Our Nitrogen business unit is the largest contributor to our overall GHG emissions and a key focus of our reduction initiatives.



ANALYST CORNER

- ✓ TCFD Strategy a) b)
- ✓ SASB RT-CH-110a.2
- ✓ SASB EM-MM-110a.2

Understanding GHG Impacts Across the Value Chain

Fertilizer production and use have complex and conflicting impacts on GHG emissions across the agricultural value chain. Fertilizer is critical for healthy crops, enhancing soil organic carbon (the level of carbon that is directly tied to the level of organic matter in the soil) and increasing yields, which helps to feed our growing population with the same amount of arable land, but nitrogen fertilizer primarily generates GHG emissions when produced and when it is applied to the crop.

EMISSIONS RELEASED DURING PRODUCTION

Although we operate across the crop input value chain and produce many products, the manufacturing of fertilizer accounts for approximately 96 percent of our company-wide direct (Scope 1) and electricity indirect (Scope 2) emissions. Direct emissions are generated on site, from burning natural gas and other fuels, or from processes at our operations. Electricity indirect emissions are from the off-site generation of purchased electricity, steam and heat.

GHG emissions related to the three types of fertilizers we produce come from the following sources:

- Nitrogen: Nitrogen fertilizer is produced by reacting hydrogen, primarily from natural gas, with nitrogen from the air to produce ammonia (NH₂), the basic building block of all nitrogen fertilizer. Approximately 95 percent of the natural gas we consume is in the production of ammonia, with twothirds of this natural gas used as hydrogen feedstock in this process. The main Scope 1 GHG emission sources are CO₂ from fuel combustion, industrial process CO₂ as a byproduct of hydrogen generation and nitrous oxide (N₂O) emissions generated as a byproduct of nitric acid production.
- Potash: Potash is mined underground, hoisted to the surface, then crushed and purified with electric-powered equipment to remove rock particles and salt before being dried. Potash operations result in Scope 1 emissions from operation of gasfired boilers and dryers, as well as mobile equipment. Scope 2 emissions are primarily associated with purchased electricity required to operate processing equipment in our mills.

• Phosphate: The production process for phosphate can generate GHG emissions in two ways. Entrained carbonates (dissolved CO₂ in the phosphate rock) are released into the air as CO₂ through the chemical reaction, and GHGs can also be released through the use of fossil fuels to calcine phosphate rock feedstock or dry fertilizer products.

Scope 1 and 2 assessment: Nutrien reports our emissions following the GHG Protocol Corporate Accounting and Reporting Standard on an operational control basis. KPMG LLP provided limited assurance over our 2020 GHG emissions, a process that we will complete annually going forward. To understand Nutrien's calculation methodology for reported Scope 1 and 2 GHG emissions, please see our GHG Inventory Management Plan.

EMISSIONS RELEASED BY USING FERTILIZERS

When fertilizers are applied to crops, they break down naturally as they are exposed to environmental factors. As a result, GHG emissions are released by these products (primarily N₂O from nitrogen fertilizer) into the atmosphere. For Nutrien, these emissions are significant as approximately 50 percent of the fertilizer we sell to our grower customers is nitrogen based and releases these emissions when applied to the soil.

Scope 3 assessment: Scope 3 includes indirect GHG emissions other than those covered in Scope 2. We completed a preliminary assessment of our Scope 3 emissions inventory in early 2020 and determined that the most material emissions in this scope were: emissions from purchased goods and services (category 1), capital goods (category 2), upstream

CLIMATE CHANGE AND GHG EMISSIONS (continued)

fuel- and energy-related activities (category 3) and use of sold products, mostly through fertilizer application (category 11). We continue to further refine our Scope 3 estimate and develop our understanding to better realize opportunities related to reducing these emissions.

In our preliminary analysis, emissions related to the use of sold products (category 11) represent up to 70 percent of our total Scope 3 emissions. The globally accepted approach to estimate emissions from the use of nitrogen-based fertilizers¹ contains significant limitations as it does not account for parameters such as application methods, soil composition, crop type, agricultural practices or innovative products, and therefore, cannot measure or demonstrate the result of carbon reduction efforts by Nutrien. As a result, Nutrien has taken several steps to increase the granularity of data collected and refine the calculation methodology, including:

- forming a working group led by a third-party consultant, including Nutrien employees who specialize in environment and climate, sustainable agriculture, and agronomy to investigate data availability and calculation approaches including 2019 Intergovernmental Panel on Climate Change ("IPCC") updates;
- · determining that a hybrid quantification approach based on "best available data" by region would be of the most value to Nutrien, and would include:
 - application of 2019 IPCC disaggregated wet/dry emission factors to North American nitrogen product sales, which

- accounts for agroclimatic zones. This methodology is not a true IPCC Tier 2 approach as it is not specific to a region and therefore is described as a "disaggregated" Tier 1 methodology, and
- application of the IPCC default Tier 1 methodology for all sales regions other than North America;
- · establishing an internal process and methodology document to capture assumptions and calculation approach rationale;
- · completing the process to collect complete and accurate global retail and manufacturing sales volume data, including nitrogen content by product type and sales region; and
- engaging Colorado State University and a third-party consultant to assist with mapping North American sales data to geographic regions allocated between "wet" and "dry" regions to calculate emissions using the disaggregated Tier 1 methodology.

Upstream Scope 3 GHG emissions are also an important contributor to Nutrien's Scope 3 emissions, specifically those related to purchased goods and services, capital goods and upstream fuel- and energy-related activities (categories 1 to 3). We are working with supply chain partners to better understand their impact on our Scope 3 emissions and finding opportunities to reduce their carbon footprints.



Overview Environment Governance

CLIMATE CHANGE AND GHG EMISSIONS

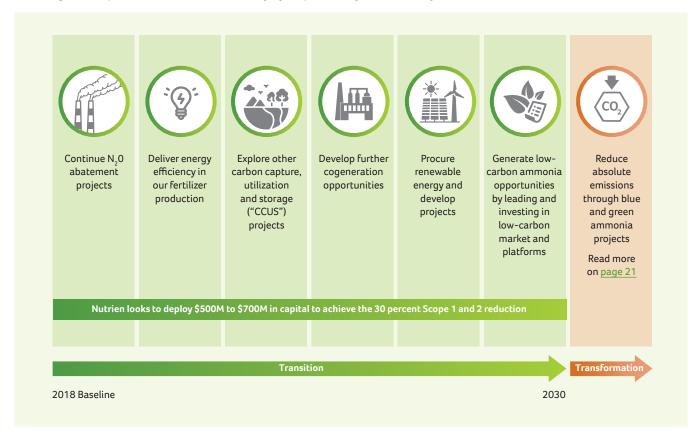
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OUR APPROACH TO REDUCING GHG EMISSIONS

We believe a combination of strategies will be needed to meet society's decarbonization goals. Our reduction plans include activities to reduce the direct GHG emissions at our manufacturing facilities and the indirect emissions from purchased energy, such as steam and electricity, while reducing other material emissions that are upstream and downstream of our operations.

In 2020, Nutrien continued to advance its climate strategy, and we defined several key targets and identified numerous opportunities to reduce our emissions including the launch of the agriculture industry's most comprehensive Carbon Program. The following opportunities will continue to be developed as new technologies become technically and financially feasible.

Reducing our Scope 1 and 2 emissions intensity by 30 percent by 2030 and beyond...





- ✓ TCFD Strategy a)
- ✓ SASB RT-CH-110a.2
- ✓ SASB EM-MM-110a.2

CLIMATE CHANGE AND GHG EMISSIONS

(continued)

TARGETING AN INCREMENTAL





✓ TCFD Strategy a) b)

✓ SASB RT-CH-110a.2

✓ SASB EM-MM-110a.2

SCOPE 1 AND 2 INITIATIVES

a. Process improvements

We are working on the following process improvements to reduce GHG emissions at our nitrogen facilities:

N₂O abatement: N₂O is a byproduct of nitric acid production. Because one tonne of N₂O is equivalent to 298 tonnes of CO₂, reductions in N₂O have the potential to significantly reduce GHG emissions. Nutrien has begun the process to install or upgrade N₂O abatement technology at every nitric acid facility and we are already abating emissions at our Redwater, AB, Geismar, LA and Augusta, GA nitrogen facilities. This technology is expected to remove up to 90 percent of N₂O emissions from nitric acid production. With identified N₂O projects at other facilities, we are aiming to incrementally reduce emissions by approximately 1 million tonnes of CO₂e annually by end of 2023. The investment in N₂O abatement is the highest impact, lowest cost avenue for material GHG emission reduction.

Reliability improvements: Reliability and plant turnaround schedules are important to our GHG emissions profile because plant start-ups and shutdowns result in higher GHG emissions compared with normal, continuous operations. This is particularly relevant in the case of our nitrogen facilities since production interruptions result in non-routine process gas venting.

b. Energy efficiency initiatives

Nitrogen: The majority (more than two-thirds) of our natural gas consumption is as hydrogen feedstock in our nitrogen operations. The remaining one third is used as fuel to provide heat for the ammonia production process. We continue to seek opportunities to improve our energy efficiency, which also helps to reduce our emissions and operating costs. Nutrien has developed a comprehensive list of energy efficiency projects across the entire nitrogen business that will be developed into an energy efficiency improvement plan in 2021. Nutrien plans to execute two projects in 2021 that will have a significant impact on energy efficiency.

Potash: Approximately 40 percent of Nutrien's total Scope 2 emissions are related to electricity consumption at our potash operations. Electricity to power equipment for potash processing represents approximately 15 percent of Nutrien's potash production costs. This is a significant cost and source of energy consumption, and we are evaluating options to reduce energy consumption, as well as renewable energy opportunities as described below.

c. Carbon capture, utilization and storage

CCUS provides another technical option for reducing GHG emissions. Captured CO₂ can be used for enhanced oil recovery ("EOR"), a process where CO2 is permanently injected into underground geological formations to maximize recovery and extend the life of oil reservoirs. Nutrien participates in two such projects at our Redwater, AB and Geismar, LA facilities. In 2020, our Geismar facility captured and diverted 270,000 tonnes of CO, from the atmosphere. Our Redwater facility started capturing previously vented CO, in December 2019 for injection into the Alberta Carbon Trunk Line. The Redwater facility sent approximately 167,000 tonnes of CO2 to the Alberta Carbon Trunk Line in 2020. Learn more about the Alberta Carbon Trunk Line project.

At our Joffre, AB Nitrogen facility, hydrogen is acquired from a nearby industrial producer as a byproduct. Since 1987, we have been sourcing hydrogen directly from a neighboring company, allowing us to eliminate the GHG-intensive step of processing natural gas into hydrogen. This results in a 15 to 20 percent lower GHG intensity per tonne of product compared to a typical steam methane reforming ammonia facility. There are no direct emissions as hydrogen is input directly into the synthesis loop of the production process for ammonia.

As of December 31, 2020, Nutrien has annual production capability for approximately 1 million tonnes of blue/low-carbon ammonia at our Geismar, Redwater and Joffre nitrogen facilities.

CLIMATE CHANGE AND GHG EMISSIONS (continued)

TARGETING DEPLOYMENT OF SELF-GENERATED **WIND AND BY END OF 2025**

d. Cogeneration projects

Generating lower-carbon energy is one of the ways we can reduce our energy-related Scope 2 emissions. We have two cogeneration projects that efficiently combine heat and power generation. These facilities use natural gas to generate electricity using an efficient gas turbine, and waste heat from the exhaust is recovered to make valuable steam. The emissions reduction is significant as we are eliminating the requirement for coal-fired grid power to our facilities and associated transmission and distribution losses of electricity over long distances.

At our Carseland, AB facility, we partner with TC Energy Corporation to generate steam for our operations from waste heat from their natural gas-fired power plant. This efficient process offsets the requirement for a natural gas boiler to be fired at our site. We use more than 75 percent of the electricity generated, which has a significantly lower emissions intensity than grid electricity.

At our Cory Potash mine in Saskatchewan, we consume steam from a SaskPower cogeneration facility, reducing some of our natural gas requirements. Further, Nutrien is constructing a natural gas facility at our Rocanville, SK Potash mine site that is expected to meet the majority of that facility's power demand with lower-emission electricity than available from the grid. It is being designed to provide us with steam, offsetting a portion of the steam supply we currently generate using gas-fired boilers. The Rocanville cogeneration facility is expected to be commissioned in mid-2022 with the addition of cogeneration expected as early as 2023.

e. Renewable energy

Scope 2 emissions are primarily generated where energy is produced upstream and accounted for at the point of consumption. Reductions in Scope 2 emissions can be achieved at the point of energy production as well as at the point of consumption. Lower GHG emission energy options for Nutrien include

- self-generated wind and solar energy projects that are located on fertilizer production sites, such as our potash operations;
- long-term power purchasing agreements ("PPAs") with third parties to either directly or virtually supply lower- or noemission renewable sources of energy; and
- purchase of emissions offset credits or renewable electricity certificates ("RECs").

f. Low-carbon options for ammonia

To achieve further emission reductions in ammonia production, end markets for low-carbon products must emerge and technology will need to advance. Overall, the economics of these opportunities must align in order to drive adoption. Available low-carbon options that Nutrien is considering include blue and green ammonia production. These pathways represent a range of technologies and processes to reduce the carbon intensity of ammonia production over the medium and long term.

LOW-CARBON AMMONIA SOLUTIONS EXPLAINED:

Blue ammonia is made of hydrogen obtained from fossil fuels and primarily via a process that captures and sequesters the carbon dioxide produced rather than releasing it into the atmosphere. It can also be made from hydrogen obtained as a byproduct from other industries.

Green ammonia is made of hydrogen obtained through a process that uses 100 percent renewable and carbon-free sources such as water electrolysis with renewable power.



- ✓ TCFD Strategy a) b)
- ✓ SASB RT-CH-110a.2
- ✓ SASB EM-MM-110a.2

CLIMATE CHANGE AND GHG EMISSIONS

(continued)

SCOPE 1 AND 2 NEXT STEPS AND SHORT-TERM PRIORITIES

In the short term, Nutrien's key priorities to lower the GHG emissions associated with ammonia production are to

- actively pursue opportunities to position Nutrien's blue/ low-carbon ammonia for use in proof-of-concept trials for emerging markets that command a premium for low-carbon intensity products;
- participate in the Ammonia Energy Association's certification effort to create a universally recognized standard for lowcarbon ammonia emissions intensity, while working with a third party to create tradeable credits for Nutrien's blue/lowcarbon ammonia:
- scope and potentially invest in transformational low-carbon production pathways, including industry/technology partnerships, engineering studies and pilot projects to enable future commercial scale-up; and
- position Nutrien to scale low-carbon ammonia production as end markets develop, providing a step-improvement in long-term emissions profile.

Challenges in accelerating progress on Scope 1 and 2 emission reductions include the following:

- · current technological limitations to reducing emissions,
- capital costs required to invest in new technologies,
- · uncertainty around policy and carbon prices in the jurisdictions where we operate, and
- · limitations imposed by original plant design and age of facilities due to life spans often more than 40 years.

SCOPE 3 INITIATIVES

a. Nutrien's comprehensive Carbon Program

Nutrien is partnering with growers, value chain stakeholders, governments and NGOs to develop a Carbon Program that will be designed to support the advancement of a carbon

credit market for the agricultural industry through soil carbon seguestration and reduced GHG emissions.

Soils naturally store carbon through vegetation. Human activities can either negatively affect this process (which results in carbon loss) or positively impact this process by improving carbon sequestration. One way to improve this process is to increase the level of organic matter in the soil, since soils with higher levels of organic matter can retain more water and nutrients, and also store more carbon.

GHG emissions related to the use of sold products, and primarily the application of nitrogen fertilizer on soil, are estimated to be 70 percent of our Scope 3 emissions, but without it crop production and quality would drop dramatically.

Carbon Program approach and value to the grower

Nutrien's Carbon Program partners directly with growers from field planning to harvest while supporting sustainable agriculture and enhancing grower profitability. Our program is unique in several key areas:

- trust-based advisory planning and long-term relationships with the grower,
- grower specific carbon recipes leveraging Nutrien's proprietary practices and crop inputs while providing digitized crop planning from field data,
- · on-farm agronomy support and advice,
- · streamlined data collection and easy validation tied to our digital hub and analytic tools, and
- one-stop monetization for grower payout with Nutrien partnering and managing carbon credit sales within the value chain

Agriculture has a critical role to play in addressing carbon emissions. Growers have the ability, through the use of best practices, to increase and maintain optimal levels of organic matter in their soil and optimize the application and efficiency of nitrogen fertilizer to reduce or sequester approximately 1 to 2 tonnes of carbon per acre with potential for further increases



- ✓ TCFD Strategy a) b)
- ✓ SASB RT-CH-110a.2
- ✓ SASB EM-MM-110a.2

CLIMATE CHANGE AND GHG EMISSIONS (continued)

Nutrien is best positioned to develop a carbon program given our direct connection to growers.

with new technology over time. As a result, agriculture is positioned to become a leading source of carbon credits.

Nutrien's Carbon Program has the ability to generate longterm value for grower customers by making each acre more profitable and developing an incremental revenue stream tied to sustainable farming practices, driving long-term agriculture sustainability leadership and building operational resiliency to satisfy rapidly evolving compliance and regulatory expectations. By supporting growers to adopt best practices, leverage digital technology (which can measure and analyze impact) and use crop inputs that support sustainability, we can drive emission improvements throughout the entire agricultural value chain. Supporting the development of a carbon credit market to pay growers for every tonne of reduced and sequestered CO2e is key to achieving the overall objective.

Carbon Program to drive value for and build on long-term relationship with growers



1 Estimated run-rate impact from ag industry carbon management improvements and representing the potential range of benefits from Nutrien's Carbon Program.



- ✓ TCFD Strategy a) b) c)
- ✓ SASB RT-CH-110a.2
- ✓ SASB EM-MM-110a.2

CLIMATE CHANGE AND GHG EMISSIONS

(continued)

AGRICULTURE

IS POSITIONED TO BE A LEADING SOURCE OF CARBON CREDITS

~1-2MT

CO2e/ACRE 1

Reduced or sequestered, depending on grower practices adopted – an incremental revenue stream that could be worth \$10–20 per tonne as voluntary markets grow

85%

OF CURRENT AG EMISSIONS EXPECTED TO BE OFFSET GLOBALLY BY 2050 1

(excluding livestock production, land use, land-use change and forestry)



- ✓ TCFD Strategy a) b)
- ✓ SASB RT-CH-110a.2
- ✓ SASB EM-MM-110a.2

Carbon Program development

The program is currently in development with an anticipated larger-scale commercial implementation in North America and other geographies beginning in 2022. Key components include:



Conducting Grower Pilot Programs in the US and Canada



Developing Digital Platform for Program



Engaging Ag Value Chain Partners to Deliver Program



Building Validation/ Verification Methodology



Finalizing Carbon Credit Transaction Process

To be developed during 2021 and brought to scale in 2022

Grower engagement: In 2021, we expect to conduct multiple program pilots in the US and Canada. We will partner with key accounts to build and scale program functionality through collaboration. Our sustainability solutions pilots began in 2019 and continue to engage growers in determining and incentivizing optimal practices and products. Read more here.

Digital hub development: Nutrien intends to develop a growerspecific "toolbox" on our digital platform, which will include features such as automated grower data collection, annual field planning sustainability analytics, carbon outcome measurement and streamlined monetization.

Value chain partner outreach: Broad partner outreach is underway with strategic suppliers, downstream partners, NGOs, academic institutions, governments and execution partners. The initial interest in our program is very promising.

Methodology: Grower data collection will primarily use our Agrible sustainability platform. Carbon credits will be generated using existing and under development protocols/frameworks to independently verify and validate carbon performance, leveraging proven agronomic modeling and soil sampling methods to generate high-quality credits.

Carbon credit transaction and market: Our intention is to create high-quality carbon credits that can be monetized in voluntary and compliance markets.

It is possible that Nutrien will purchase carbon credits generated in the program and apply them against our emissions footprint. Nutrien will look to expand the Carbon Program once we have completed our initial pilot implementation and developed a pathway to scalability.

1 Estimated run-rate impact from ag industry carbon management improvements and representing the potential range of benefits from Nutrien's Carbon Program.

Overview

Environment

CLIMATE CHANGE AND GHG EMISSIONS (continued)

b. Supply chain engagement

Indirect emissions related to purchased goods and services and capital goods are the second highest Scope 3 emission categories for Nutrien. Some of the highest emissions in purchased products are related to nitrogen fertilizer purchased by our Retail business unit. Several industrial products used in our manufacturing processes, as well as in our annual capital expenditures, have upstream emissions. Fuel- and energyrelated activities and transportation emissions for both upstream and downstream activities are also material to Nutrien. We are evaluating our supplier ESG and climate-related practices.

CLIMATE-RELATED RISKS AND **OPPORTUNITIES**

While there are numerous risks related to climate change for Nutrien, action required to address climate change also presents significant opportunities. We conducted preliminary scenario analysis focusing on these material risks, following

the TCFD recommendations. While we continue to analyze these scenarios, it has helped us to narrow our focus on key climate-related risks and opportunities. We share what we are doing about them in the table that follows. As Nutrien is a globally diversified company with a portfolio of assets across the agricultural value chain, we see the potential to capitalize on opportunities related to climate change and will focus on positive outcomes and long-term value for all stakeholders. Read more on page 26.

CLIMATE GOVERNANCE AND RISK **MANAGEMENT**

We have used the TCFD framework to report on our climate strategy and performance. To read about our climate governance and risk management, please see our 2020 CDP Climate Questionnaire, which is fully aligned with the TCFD framework.







- ✓ TCFD Strategy c)
- ✓ TCFD Risk Management a) b) c)
- ✓ TCFD Governance a) b)
- ✓ SASB RT-CH-110a.2
- ✓ SASB EM-MM-110a.2

Nutrien climate-related risks and actions

We monitor policy and regulatory changes, technology costs, and potential changes in consumer behavior as potential risks during the transition toward a low-carbon economy. We are considering, and working to mitigate, the following transitional risks:

Key material risks

What is the risk?

What we are doing about it

Existing and potential carbon taxation by governments

Changing regulatory frameworks to support societal decarbonization goals can impact our business through increasingly costly carbon tax regimes.

By reducing our emissions, we can decrease carbon taxes paid or potentially decrease the risk of any other regulatory action against GHG emitters. We will do this through emission reduction initiatives that will support our targeted reduction of Scope 1 and 2 GHG emissions intensity by 30 percent by 2030, compared to our 2018 baseline, and committing to SBTi targets based on the SDA process for fertilizer producers.

Transitional risks for our grower customers

As the globe transitions to lower-carbon options for all consumer products including food, it is expected that growers could potentially be impacted by key stakeholder expectations for changing growing practices and crop inputs used.

Initiatives to support our growers to be more resilient to the transition include

- · our Carbon Program,
- whole-acre sustainable products and services.
- · digital tools for decision support, and
- · Nutrien Financial services.

Climate change is a strategic risk with potential financial implications for our company, capital providers, suppliers and customers. We also acknowledge that investors, lenders and insurance underwriters need to understand how climate-related physical risks could impact our future. Some of the climate-related risks we are evaluating are:

Key material risks

What is the risk?

What we are doing about it

Physical risks for our grower customers

Our grower customers are impacted by changing regional weather factors, primarily increasing temperatures and volatile precipitation, which can impact growing conditions and crop mix, lowering the income of growers and impairing their ability to purchase our crop nutrients, crop protection, seed products and services.

Initiatives to support our growers to be more resilient to climate-related changes include

- · our Carbon Program,
- grower pilot projects for sustainable products and soil health,
- weather expertise to help adapt to changing global climate,
- · agronomic services and our digital analytics, and
- · Nutrien Financial services.

Physical risks to Nutrien sites and facilities

Increasingly frequent and more severe impacts can affect our sites and our operations.

Weather-related risks are treated like any other risk to our assets. We evaluate acute and chronic weather changes for physical risks to our sites and facilities. We maintain risk registers and emergency response plans at both the enterprise and site level, including appropriate insurance coverage for possible damage to facilities and business interruption. Given the broad geographic distribution of our assets, physical risks pose minimal risk to our overall business.

Physical risks to our supply chain

Extreme weather events can strain our upstream or downstream supply chain, affecting our ability to get inputs or to deliver our products to customers.

Our procurement team has contingencies in place to ensure we can continue production if our key suppliers experience disruptions due to weather. We mitigate this risk by ensuring we have multiple suppliers in different locations for critical feedstocks and by using our storage sites to stock additional supplies.



ANALYST CORNER

✓ TCFD Strategy a) b) c) ✓ SASB EM-MM-110a.2

2021

- ✓ SASB RT-CH-110a.2
 ✓ SASB RT-CH-530a.1

Environment

Governance

SOIL HEALTH

STRATEGIC SDGS







Why is this topic relevant to our business?

Many of Nutrien's products and services are provided to directly support soil health because healthy soil is the foundation for life on this planet and is the grower's greatest asset for crop production and yield improvement. Improving soil health also results in increased ability for the soil to store carbon, increased biodiversity, plant disease suppression and farm productivity.

Key soil health ambition:

2030 Commitment

Enable growers to adopt sustainable and productive agricultural products and practices on 75 million acres globally by 2030

Our Approach

Nutrien Ag Solutions is a leader in the agriculture industry through our scale, efficiency and innovative offerings. We provide growers with whole-acre solutions that support soil health, including a full suite of products, services and solutions, based on sound agronomic advice and analytics.

Focusing on soil health requires an integrated systems approach We consider the physical, chemical and biological properties of soil to determine its capacity to function as a productive and stable ecosystem. Our agronomists develop customized shortterm and long-term strategies to support growers' goals for

soil health and farm productivity. By focusing on soil health, we also mitigate potential physical risks related to climate change and enhance grower profitability, making this an important component of Nutrien's Carbon Program.

Nutrien Ag Solutions has direct access to innovative technology and diagnostics, along with more than 3,600 agronomists and field experts working directly with growers from 2,000 locations globally. Our experts, in partnership with our grower customers, provide agronomic advice throughout each growing season.



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- ✓ SASB EM-MM-110a.2
- ✓ SASB RT-CH-410b.2

SOIL HEALTH

(continued)

Nutrien's whole-acre solutions approach



Our whole-acre solutions begin with strategic field planning, followed by precise application of crop inputs during the growing season, and end with measurement to quantify results and analytics to inform next season's program.

1 TESTING AND ANALYTICS

For a grower, the field planning process begins with previous harvest, soil and other available data that can be loaded into our digital hub for analysis. Soil testing enables us to make specific recommendations for growers with products and application rates that supplement and optimize nutrient balance in the soil. Nutrien has nine agricultural labs across our North American operations to test field samples including soil, plant tissue and water, including Waypoint Analytical. We also have one agricultural lab in Australia and five across South America.

2 FIELD PLANNING AND **CUSTOMIZED SOLUTIONS**

Our investment in digital tools helps growers make more informed decisions. Through our industry-leading platform, the Nutrien Ag Solutions digital hub, crop advisors can provide the best advice to growers regarding which products to apply, along with the right rate, time and place, based on current and predicted conditions. This platform combines location, agronomic information (crop physiology, soil characteristics, and pest or disease impact), environmental data (precipitation, temperature), weather forecasting, and data science to make field-specific recommendations for growers. These crop management solutions help growers calculate their return on investment, maximize product efficiency and minimize environmental impact.

3 PRODUCTS TO NOURISH AND PROTECT

Seed: Every season starts by selecting the right seed and seed treatments for a grower's unique growing conditions. We provide customers access to a broad portfolio of leading-edge genetics and only offer products that meet the highest quality standards. Across crops, hybrids and varieties combined with the latest trait technology are thoroughly tested across a range of geographies and environments to help Nutrien deliver increased yield and yield stability to our customers. Seed treatments are often used to provide biological and nutritional enhancements and to control pests and diseases very early in the growing season, protecting the seed and improving the establishment of healthy crops.

Plant nutrition: The nutrients we supply are essential for growing healthy crops. Our macronutrient products include nitrogen, phosphorus and potassium, with secondary nutrient products containing calcium, magnesium and sulfur. Our micronutrient formulations, consisting of boron, iron, manganese and zinc, are also essential for plant growth in very small quantities. Mineral and organic nutrient sources provide



Environment

Governance

SOIL HEALTH (continued)

biological system support to organisms in the ecosystem that need them. We have numerous enhanced nutritional products that also improve the environmental performance, including

- Environmentally Smart Nitrogen ("ESN"), a urea granule contained within a flexible polymer coating. The coating protects the nitrogen from loss into air or water and releases nitrogen at a rate that is controlled by soil temperature and matches the nitrogen demand of the growing crop.
- Nitrogen inhibitors and stabilizers, synthetic or biofertility products that are combined with nitrogen-based fertilizers to minimize nitrogen loss and maximize utilization.
- Our patented Micronized Sulfur Technology ("MST") integrated into ammonium-phosphate fertilizer ("MAP") granules, which speeds sulfur delivery to the plant, reducing the potential for sulfur loss, and slowly releasing nutrients throughout the growing season.
- Biofertility products that increase nutrient use efficiency and/ or nutrient availability in the soil.

Nutrien continues to develop new products to support soil health. We have invested in or acquired companies like Actagro, Agricen and CH Biotech that develop products to complement natural interactions between soil and crops, bringing innovative products to our retail network. Known as ag biologicals, this diverse group of products is derived from naturally occurring microorganisms, plant extracts, beneficial insects or other organic matter, and includes biostimulants and biocatalysts that enhance microbial activity, increase nutrient availability and uptake, and improve plant response to stressful conditions.

Crop protection: Proper crop protection takes research, planning and the right mix of products to protect the grower's investment. Crop protection products are designed to maintain crop quality and minimize yield losses by managing plant diseases, weeds and pests. They include the following:

- Herbicides, insecticides and fungicides.
- Biological pesticides that provide plant protection using natural materials or biocontrol mechanisms.
- Adjuvant products that improve the performance of a pesticide, generally leading to better plant absorption and more efficient use of the pesticide. They improve environmental safety through drift reduction and removal of pesticide residues from spray tanks.

4 MEASUREMENT OF RESULTS

Farmers can quantify yields and environmental metrics using tools included in the Nutrien Ag Solutions digital hub for sampling, testing, precision agriculture and analytics technology. A key component of the digital hub is Agrible, which has significant data science capabilities to measure, benchmark and empower sustainable crop production. It also enhances data traceability and connectivity to leading agricultural, food and consumer products companies who want to measure the environmental impact of agriculture in their supply chain, providing access to additional market opportunities and incentives for growers. The metrics can be anonymized and aggregated for these partners. Learn more here.

Our acquisitions of Agrible, Waypoint and Agbridge enhance our ability to provide real-time sustainable solutions and agronomic advice to our customers. Our award-winning digital hub experienced significant acceleration of adoption and usage in 2020, surpassing \$1.2 billion in sales, representing 11 percent of total Retail sales in North America.

We intend for our digital hub to also be instrumental in maintaining soil data related to carbon seguestration and providing grower customers the required documentation for carbon credit markets.

SOIL HEALTH

(continued)

500K

ACRES TRACKED FOR
SUSTAINABILITY METRICS

PILOT PROJECTS
IN 8 US STATES

CROPS INCLUDED:

CORN, RICE, COTTON, WHEAT, POTATO AND CAMELINA

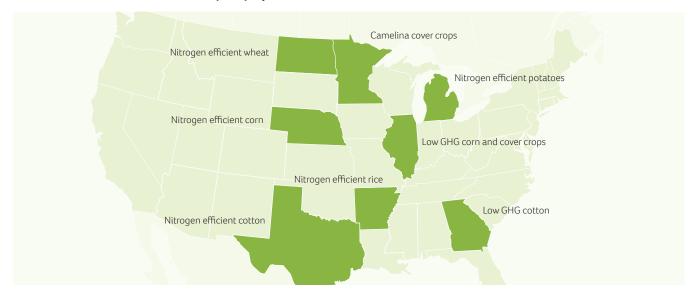
Sustainable Solutions Pilot Projects

Nutrien is piloting proof-of-concept input strategies that increase grower profitability while also improving and measuring environmental outcomes using our Agrible software tool. Our goal is to build connections and drive farm productivity, profitability and natural resource management together through customized, scalable solutions. We work with growers, downstream partners

and third-party experts to determine and incentivize optimal practices and products for continuous improvement.

Our sustainable solutions pilot projects continue through 2021, and results have been positive. Nutrien has additional pilot projects underway as part of our <u>Carbon Program</u>.

2019 and 2020 sustainable solutions pilot project locations



CASE STUDY: AGBRIDGE



In 2020, Nutrien acquired Agbridge, a wireless data transport system that enables real-time information transfer between equipment, advisors and growers. It uses a hardware device capable of working with a wide variety of farming equipment, regardless of the manufacturer. Agbridge brings precision agriculture to reality in field operations by combining our agronomists' application prescription with GPS and turn-by-turn field information, and then supplying "as applied" data for analysis and decision making. We are currently installing this technology in our fleet of powered applicators in North America (approximately 2,200 units).

ENVIRONMENTAL IMPACTS OF PRODUCTS

STRATEGIC SDGS









Why is this topic relevant to our business?

Reducing the environmental impacts from the agricultural products we manufacture and sell is one way we can help our customers manage the increasing environmental and societal pressures they face. As a leader in sustainable agriculture, we continue to offer growers products and technologies with a lower environmental impact and facilitate the adoption of agronomic best practices.

Key product stewardship ambition:

ESG Performance Goal/Target

Complete risk evaluation profiles of NPK (fertilizer) manufactured products by 2023

Our Approach

The need to feed a growing population while minimizing the environmental impacts of agriculture is an opportunity for Nutrien to provide the right technological solutions for growers' most pressing challenges: maximizing nutrient use efficiency, minimizing nutrient loss to air and water, and increasing crop quality and yields through the use of innovative products and agronomic services.

The main sources of environmental impacts related to the application of crop inputs at the farm level are:

Emissions to air: Volatilization is the loss of nitrogen to the atmosphere as ammonia gas, primarily from urea-based fertilizers. In certain conditions (warm temperatures, moist soil, surface application) up to 40 percent of nitrogen can be lost to volatilization within hours of application. Additionally, under certain conditions (primarily anerobic, warm conditions), nitrogen is subject to microbial conversion in the soil, which converts it to N₂O, a potent GHG (1 tonne of N₂O is equivalent to 298 tonnes of CO₂). We address these two loss pathways through slow release nitrogen products and nutrient stewardship practices. Read more here

Loss to water: When fertilizers containing nitrogen and phosphorus are improperly applied to crops, some nutrients may leach into groundwater or reach surface water by runoff. Nutrient enrichment of water bodies contributes to algae growth and reduced oxygen availability, which can adversely affect water quality and aquatic life. Runoff or overapplication of crop protection products can also impact ground and surface waters. We promote improved management practices and products where appropriate to minimize the risk of runoff and leaching. Read more here.

Impacts to land: Growing healthy crops is one of the best ways to maintain soil health on farmland. Nutrients in excess or deficit can weaken crops and reduce yields. Nutrien's agronomists and crop advisors recommend the optimal balance of macro- and micronutrients to support soil and crop health. Utilization of precision agricultural technologies enables growers to better match requirements by field to improve yields and soil health, while reducing nutrient loss to the environment. Read more here.



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ENVIRONMENTAL IMPACTS OF PRODUCTS

(continued)

>64K **FKONOMICS USFRS IN 2020**

IN SOIL FERTILITY. PLANT NUTRITION AND PLANT PHYSIOLOGY

ADDITIONAL STUDENTS ENROLLED IN AGRICHEM **NUTRITION ACADEMY**

Use of chemicals: We acknowledge stakeholder concerns related to the use of some chemicals in agriculture. Consumer demand for sustainably sourced food is on the rise and producing enough nutritious and accessible food for our growing population is expected to strain existing land and water resources. This challenge requires science-based solutions, including the responsible use of chemicals, to increase production on existing land while protecting the environment.

We make informed decisions about product suitability and use based on available science and empirical evidence. We promote the safe and responsible use of our products by providing information to customers on appropriate use, handling and application. We have a strong product stewardship program to manage environmental and safety impacts while maintaining product functionality. Our recent acquisitions and innovations have also increased our ag biological portfolio of products. Read more here.

Impact Management Across Our Value Chain

Nutrien promotes best practices that improve crop yields and farming economics while reducing environmental impacts. We have systems and programs in place to manage the environmental and safety impacts of our products.

1 CROP INPUTS MANAGEMENT

We promote sustainable nutrient management for increased food production in an economically viable way while retaining the ecological integrity of food systems. We provide advice to growers that is aligned with the 4R Nutrient Stewardship System ("4Rs") in North America and Fertcare in Australia. Both organizations promote the adoption of best practices in fertilizer application. Where appropriate, the 4Rs include conservation practices like reducing tillage, planting cover crops and structural waterway protection.

Promoting agricultural science-based decisions: Our eKonomics website provides easy-to-understand summaries of the latest university research and nutrient management information, including easy-to-use nutrient calculation tools to inform grower decisions. The tools allow growers to calculate nutrient needs and return on investment. The eKonomics site had more than 64,000 users in 2020.

Crop protection digital app in Australia: The coast of Queensland. Australia is home to both the Great Barrier Reef and large fields of sugar cane and horticultural crops. Heavy rainfall common in this area makes product loss through runoff into the coral reef a significant risk. Our agronomists use a third-party digital app that indicates when and where pesticide applications should ideally occur. The app assists with good planning and application practices that reduce product loss by mapping and forecasting buffer zones from sensitive areas and time prior to rainfall based on pesticides use information.

2 GROWER OUTREACH

At Nutrien, we believe in working alongside our growers and sharing our expertise to achieve the best possible outcomes together.

Across North America, we offer various forms of training and educational materials to teach growers about our industryleading portfolio of products and services using online training tools, including a wide range of educational videos. Our product videos focus on applications, products and enhancements for growers, and have had approximately 15,300 views in 2020.

We trained more than 2,000 Brazilian growers in 2020 during educational sessions on soil fertility, plant nutrition and plant physiology. In Brazil, there are an additional 480 students enrolled in our online education program called Agrichem Nutrition Academy. The program includes 34 classes related to plant nutrition and crop management best practices.

Nutrien's Model Farm and Agricultural Resource Centre in Trinidad and Tobago is a state-of-the-art 75-acre facility

ENVIRONMENTAL IMPACTS OF PRODUCTS (continued)

RETAIL FACILITIES DEDICATED TO INNOVATION. SEED BREEDING AND **ASSOCIATED PRODUCTION**

NEW PROPRIETARY PRODUCTS IN THE PAST FIVE YEARS

> NEW SEED VARIETIES IN THE PAST FIVE YEARS



that offers free training to local farmers and students, with ongoing access to experts and best practices for sustainable crop production and profitable farm enterprises. In 2020, the Model Farm hosted 410 training course participants.

3 PRODUCT STEWARDSHIP

Product stewardship is the act of minimizing the risk while maximizing the health, safety, environmental and social benefits of a product throughout its lifecycle stages. We strive to improve our product sustainability profile across procurement, product development, manufacturing, distribution and end-use application. Nutrien's Safety, Health and Environment ("SH&E") Management System integrates product stewardship-related topics of regulatory compliance, chemical classification, supply chain risk, environmental and sustainability impacts, and safe use information.

Our product stewardship team takes a lifecycle approach to lowering product environmental, safety and social impacts of concern. We are developing a holistic risk-based product impact rating approach for use in decision making, initially for our fertilizer manufactured products with additional profile development through 2021. Read more here.

4 RESEARCH AND DEVELOPMENT

We create superior value for our stakeholders through the products and solutions we provide. Nutrien's research and development ("R&D") programs are designed to provide sciencebased solutions to the agronomic challenges that agriculture and our grower customers face today and in the future. Our R&D teams focus on innovative solutions for nutrient efficiency, micronutrient deficiency, crop quality, sustainability and yield enhancement. Each R&D project meets the following criteria:

- Superior Science: Technologies originated and advanced within our portfolio offer unique combinations of chemistry, biologicals, genetics or traits.
- Differentiated Functionality: Products developed and commercialized have features and functionality differentiated from those of existing solutions.

 Sustainable Agriculture: Technologies and products increase input efficiency, minimize nutrient loss, reduce environmental impact, and/or improve production agriculture and food safety.

Our seed breeding programs are dedicated to developing elite hybrids, varieties and traits for growers with a focus on highyielding and yield-stable varieties across geographies. Seed breeding is the process of combining the traits of different seeds to produce improved characteristics in crops for specific environments or conditions. Nutrien currently has five seed breeding programs in North America (canola in Canada, cotton in Texas and Mississippi, rice in Texas, forage and turf seeds in Oregon, and cereals in Montana). We have an additional canola breeding group in Australia. Our R&D locations in Costa Rica and Chile provide contra-seasonal research and seed production to accelerate development and reduce time to market.

Nutrien is uniquely positioned with a network of owned and leased farm assets spanning more than 2,300 acres to test digital and crop input innovations that improve grower productivity, profitability and sustainability in a real farm operating environment. We use this network to support our seed breeding programs, crop protection and nutrition field trials, performance demonstrations of our full suite of third-party and proprietary products, and pilots of early-stage technologies.

5 INNOVATION PARTNERSHIPS

Our research teams work across disciplines internally and externally with our innovation partner companies, as well as in partnership with leading research universities. Collaborating with third parties that have expertise in specific fields is a cornerstone of the Nutrien Ag Solutions R&D strategy. For example:

• In 2020, Nutrien joined Creative Destruction Lab as a catalyst partner to work with early-stage innovators in the agriculture and food space, using our expertise to help participants refine ideas and identify commercial applications. This partnership places us at the cutting edge of new sustainable technologies for agriculture. Learn more.

ENVIRONMENTAL IMPACTS OF PRODUCTS (continued)

- Nutrien and Colorado State University ("CSU") have developed a strategic partnership aimed at feeding the world through sustainable, innovative and inclusive practices. Nutrien's 10-year partnership and ongoing investments will improve research capabilities, help students prepare for a career in the field of agriculture, and use innovative technology. Learn more.
- In 2019, Nutrien and Radicle Growth, a California-based acceleration fund focused on agriculture and food technology, launched the Nutrien-Radicle Challenge Canada innovation competition. The Challenge identified and invested in

- Canadian entrepreneurs who are using groundbreaking technologies to solve agriculture and food challenges. Learn more.
- We are a limited partner investor in venture capital firm Finistere Ventures' agriculture technology funds, providing us access to early-stage technologies that have a strong fit with our innovation priorities and business model.
- We partner with four universities across North America as part of our seed breeding program. The scope of our research spans germplasm and new trait development, hybrid system development, data analytics, and genomic selection.



CASE STUDY: R&D COLLABORATION

We continue to partner with third parties to access and develop "high throughput phenotyping" technology using drones and highresolution sensors, which has been applied to Nutrien's canola breeding trials throughout Western Canada. Aerial imagery of our research plots is collected, and data provided to help us select the best performing canola plots with highly objective data in a fraction of the time required manually. Through collaborations such as this, we can develop optimal hybrid seed varieties to commercialize for our farmer customers.

Social Environment Governance Additional Content Overview

Toolbox of Products and Services

Nutrien offers products, services and technologies that have multiple environmental benefits:

| | Reduces air | emissions | Reduces no | utrient loss to ground/surface water | Improves soil health | More efficient use of water | | | | |
|---------------|---|-----------|---|---|----------------------------|-----------------------------|--|--|--|--|
| | | Benef | fits | / | 2020 Performance | | | | | |
| | ESN | 0 0 | | >400,000 tonnes of ESN produced and sold | | | | | | |
| 73 | Nitrogen inhibitors and stabilizers | 0 0 | | >\$100 million spent in R&D >2,000 proprietary products | | | | | | |
| Dac | Smart Nutrition MAP+MST | 0 | | 80 new proprietary products in last five years 5 seed breeding programs across five countries >30 facilities dedicated to innovation, breeding and associated production | | | | | | |
| PRO | Plant biostimulants and biological pesticides | | 0 | | | | | | | |
| | Adjuvants | 0 | 0 0 | | | | | | | |
| | Seed innovation | | 0 0 | 52 new seed varieties in the past five years | | | | | | |
| | | | | | | | | | | |
| | Crop inputs management (4R, Fertcare, eKonomics tool) | | | 18 Nutrien agronomists in Canada | are 4R designated | | | | | |
| | | 0 0 0 | 0 | 10 Nutrien Retail facilities in the Western Lake Erie Basin are 4R certified | | | | | | |
| | | 000 | | 500 agronomists in Australia are Fertcare accredited | | | | | | |
| | | | | >64,000 eKonomics users | | | | | | |
| CES | Grower outreach | | | >3,600 agronomists and field experts working directly with growers | | | | | | |
| RVIC | | 0.0 | 15,300 product video views across North America | | | | | | | |
| DSE | | 0 0 | | >2,000 growers in online and in-person training in South America | | | | | | |
| CES AND SERVI | | | | 410 Trinidad Model Farm training course participants | | | | | | |
| CTICE | Digital agronomy | | | 9 agricultural labs in North America | | | | | | |
| PRAC | | | • | 5 agricultural labs in South America | | | | | | |
| Ā | | 0000 | | 1 analytical lab in Australia | | | | | | |
| | | | | | | | | | | |
| | Sustainable solutions pilot projects | | | 500,000 acres tracked for sustaina | bility metrics | | | | | |
| | | 00 | | 9 pilot projects in 8 US states | | | | | | |
| | | | | crops included: corn, rice, cotton, | wheat, potato and camelina | | | | | |



WATER STEWARDSHIP

STRATEGIC SDGS







Why is this topic relevant to our business?

Water is an essential input to our operations, especially in mining and fertilizer production. Water is also an essential input for agriculture, and our grower customers are significant users of this valuable resource. As it is a shared resource, it is important for us and growers to use water efficiently and protect water quality, helping to maintain positive environmental impacts and ensuring operational stability.

Key water stewardship performance ambition:

ESG Performance Goal/Target

Complete a watershed risk assessment of our production sites in 2021 to inform contextbased operational water targets by 2023

Our Approach

We recognize the need for equitable sharing of water resources and are mindful of regional water use, needs and conditions. We take actions to be good water stewards within the basins where we operate.

In 2020, we established Nutrien's Water Strategic Issue Team, a company-wide cross-functional group of subject matter

experts, to review Nutrien's water footprint and identify water-related risks and opportunities across our value chain. The team identifies opportunities that support water stewardship and develops stakeholder engagement strategies. Read Nutrien's Water Position



Our Actions

At our manufacturing sites, we strive to reduce freshwater use and protect water quality to reduce costs and environmental impacts.

1 WATER USE IN OPERATIONS

Our primary uses of water are for producing nutrients, such as milling in mining operations, steam generation and process cooling at our fertilizer production facilities. Water is also used to produce some of our liquid products. Water availability is

crucial for our two phosphate and six potash mining operations. The majority of our fertilizer production facilities use freshwater resources (for example, rivers or groundwater) to supply the water needed for operations. To minimize this impact, we seek to use alternative water sources where feasible, including gray water, ocean water or recycled water within our own facilities. Some of our production locations cycle water through cooling towers.



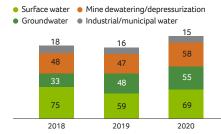
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Water Position

WATER STEWARDSHIP

(continued)

FRESHWATER INTAKE BY SOURCE (million m³)



Our freshwater intake increased in 2020 as compared to previous years due to higher mine dewatering and depressurization volumes at our Aurora, NC Phosphate mine along with higher groundwater use at our White Springs, FL Phosphate facility. Mine dewatering and depressurization volumes are dependent on a number of factors related to mine conditions including but not limited to the location, surface area and direction of active mining operations.

WITHDRAWAL FROM AREAS WITH HIGH WATER STRESS

2 WATER QUALITY IN OPERATIONS

Our operations comply with water discharge permits and limitations for the protection of receiving waters, lands and public works. We strive to protect water quality by managing:

Water discharges: We meet and strive to surpass regulated water quality thresholds for our facility water discharges through engineering controls, testing and monitoring programs, and treatment if required. If not managed properly, our water discharges could impact the quality of surrounding surface water or groundwater. Where needed, we incorporate water treatment technologies and best practices to minimize impacts on water quality.

Storm water: Rainwater can transport materials into surface water bodies. Some of our operations are engineered to handle large rain events during which excess storm water is managed with diversion channels to storm or tailings ponds, permitted injection wells and/or storm water discharge facilities. We also divert clean off-site storm water from entering our sites by diverting to natural drainage channels where possible.

Gypstack water discharge and treatment: Water contained in the pores of our gypstacks (stockpiles of phosphogypsum byproduct from phosphoric acid production) and storm water runoff that comes into contact with gypstacks is acidic. Through the formal closure of gypstacks, Nutrien uses surface grading

and placement of low permeability covers on gypstacks to prevent storm water infiltration. Additionally, as water continues to drain from gypstacks following closure, it is collected and treated before being discharged to the environment in accordance with permitted specifications.

Phosphate mine reclamation: As part of current reclamation practices, the material that is removed from the upper layers of the mine (overburden) are backfilled. If the naturally occurring metals in the overburden materials come into contact with water from precipitation (as was allowed in legacy practices), the metals can begin to leach, negatively impacting nearby surface water and groundwater. We preserve surface water quality through proper phosphate mine reclamation including installation of low permeability caps on overburden materials. Nutrien has been recognized by the American Exploration & Mining Association for our outstanding closure design and reclamation of a legacy phosphate mine in Idaho. Read more here.

3 BEST PRACTICES AND WATER STEWARDSHIP IN AGRICULTURE

In Nutrien's Retail operations, our whole-acre solutions address water management and quantify water-related performance, with the ability to access potential market opportunities and incentives. Given climate change and growing competition for water resources amid increasing water scarcity, finding



CASE STUDY: CARSELAND

According to the World Resources Institute's Water Risk Atlas Tool (Aqueduct) baseline water stress indicator, our Carseland, AB Nitrogen facility is located in a region with higher water stress. We have completed a site water balance and made significant efforts to optimize and reuse water where feasible. The facility sources water from the nearby Bow River and operates a raw water storage pond with the capacity for approximately seven days of operational water needs in case of river supply issues or low river flow. In 2020, Nutrien successfully piloted treatment technology for additional industrial reuse, with the potential to reduce Carseland's freshwater withdrawal by more than 0.3 million m³ or 7 percent per year. Additionally, various site water sources, including site runoff, are collected in a designated pond and used to irrigate farmland surrounding the facility in accordance with the facility operating approval water quality permits.

WATER STEWARDSHIP

(continued)

opportunities to make agriculture more water efficient, and building resilience in cropping systems are key.

Our grower customers rely on water for product blending and irrigation in arid growing environments. Their water dependency can vary from year to year based on weather patterns. We promote services and advice that improve water use efficiency and reduce nutrient impairment to groundwater and surface water.

- Precision agriculture: uses technology, including GPS and geospatial data processing analytics, to allow growers to optimize water use considering variability in the field.
- Agrible software: provides field-level predictive analytics, enables farmers to quantify their performance regarding water use and other sustainability metrics, and enhances data connectivity to food companies and other value chain partners.
- Nutrient management: involves determining the 4Rs (the Right Source of plant nutrients at the Right Rate, Right Time and Right Place) to minimize nutrient runoff and leaching. Where appropriate, this may include conservation practices such as structural waterway protection.
- Irrigation management: involves infrastructure and technology to efficiently water crops in dry regions, minimizing evaporation and improving yields.
- No-till and reduced-till practices: creates a narrow furrow for planting seeds rather than plowing or disking. This leaves cover crop residues intact on the surface and provides a variety of soil health benefits including increased water retention and infiltration.

Effective water management is crucial in a country as dry as Australia. Nutrien now owns the largest retail water business in Australia, known as Nutrien Water. This is a diverse business with specialized services for Australia:

· Our team specializes in the design, supply, install and maintenance of the most suitable and cost-effective on-farm water infrastructure solutions, such as irrigation.

- The water broker business of Nutrien Water provides additional solutions for irrigators through the buying and selling of water entitlements. Our brokers design and implement strategies to manage a client's water assets and seasonal water requirements.
- Nutrien Water's Engineering Team provide water treatment solutions for human and stock consumption and domestic, industrial and mining wastewater management. Our West Australian business is exploring specialized solutions for remote locations.

4 PRODUCTS THAT PROTECT WATER QUALITY

Healthy plants and root systems improve water infiltration and the moisture holding capacity of soil, reducing the risk of nutrient runoff to surface water. Nutrien offers a variety of products that enhance soil and plant health, positively impacting water on and around farms. We also promote the safe use of Nutrien products through product disclosure and the provision of training to employees and contractors who handle and apply our products. Read more here.



BIODIVERSITY

STRATEGIC SDGS







Why is this topic relevant to our business?

Agriculture is dependent on healthy ecosystems to sustain our global food supply. Supporting nature-positive solutions is paramount to meet this demand. Loss of biodiversity is a key risk to our grower customers, as it provides a buffer against variability in farm productivity, improves crop pollination, and increases natural resistance to weed, pest and disease invasions. Our products and services improve yields on existing agricultural land, reducing the need to convert more land for agricultural purposes and protecting biodiversity.

Key biodiversity ambition:

ESG Performance Goal/Target

Determine how digital on-farm tools can identify and track opportunities to enhance biodiversity conservation on agricultural landscapes by 2023

Our Approach

In 2020, we established a company-wide cross-functional group of subject matter experts to identify biodiversity-related risks and opportunities across our value chain. The team's initial work has been to assess deforestation and identify other issues that impact biodiversity. While Nutrien maintains a strategic focus on

the impacts we can facilitate through our business, deforestation is a shared challenge across the industry and its supply chain that must be addressed through collaborative leadership within the agriculture sector. Read Nutrien's Deforestation Position.

Our Actions

Nutrien participates in the Natural Climate Solutions Alliance, which aims to scale up affordable natural climate mitigation solutions for achieving the goals of the Paris Agreement on climate change. Climate mitigation solutions include reforestation;

protection and conservation; livestock, animal and land management; and coastal wetland and peatland restoration, among others.

We consider impacts to biodiversity directly at our operation sites, and indirectly through our agricultural products and services.



Deforestation Position

BIODIVERSITY

(continued)

1 OPERATIONS

Nutrien recognizes the intrinsic value of protected areas and legally recognized areas of high biodiversity. In the normal course of operations, if a planned project may impact a protected species, or is subject to a regulatory review (for example, the Impact Assessment Act in Canada or the National Environmental Policy Act in the US), we work through proper

permitting including measures to minimize potential impacts. Nutrien protects non-agricultural production lands through conservation and the reclamation and remediation of lands where Nutrien has or has had operations. We work with environmental authorities and properly restore land postmining using local and native plant varieties, which can often enhance biodiversity.



CASE STUDY: PARTNERSHIP TO PROMOTE BIODIVERSITY

Wetlands play an integral role in improving water quality and supporting biodiversity. Nutrien supports Ducks Unlimited Canada's ("DUC") Legacy Wetland Restoration Program, which restores wetlands and degraded habitat and uses conservation easements to protect the land in perpetuity before re-selling it back into the community. Since 2009, our cumulative donation of \$1.15 million has been continually reinvested in Western Canada resulting in an estimated 570,000 m³ of runoff storage, while filtering up to 2,200 kg per year of phosphorus and 22,000 kg per year of nitrogen through restoring and protecting approximately 550 acres of wetlands on 2,800 acres of total habitat. Additionally, this work has stored roughly 60,000 tonnes of CO₂.

In addition, the Forage Incentive Program, supported by Nutrien Ag Solutions, is one of the primary ways DUC is working with landowners to restore vital waterfowl nesting habitat while restoring forages across the prairies. The program provides an incentive for landowners to convert cultivated land to perennial cover, which provides nesting habitat and grass for the beef industry. Between 2010 and 2020, DUC has converted more than 183,000 acres and engaged 1,484 landowners.

BIODIVERSITY (continued)

2 AGRICULTURE

Increasing productivity on existing farmland is critical to protecting our natural carbon sinks and biodiversity. Read more about our innovations and partnerships for sustainable production here.

Our agronomists and scientists specifically focus on safe use of products, pest- and disease-resistant seed, and integrated pest management strategies. In addition, development of on-farm biodiversity conservation planning is part of our agronomic service offering.

Safe use of agricultural chemicals: Between 26 and 40 percent of the world's potential crop production is lost annually because of weeds, pests and diseases.1 Pesticide products are part of the solution for many of our customers. We focus on habitat, and pollinator and beneficial insect protection by promoting the safe use of our products. In addition, we continue to focus on innovation of agbiological products that are derived from naturally occurring microorganisms and provide environmental benefits.

Responsible manufacturing and application of our chemical, fertilizer and seed products reduces negative impacts to nontarget species. Nutrien determines product suitability and use based on scientific evidence, regulatory requirements and a holistic product rating system. We promote the safe and responsible use of our products by providing information to customers on appropriate use, handling and application. Read more here.

Pest- and disease-resistant seed: Through Nutrien's seed breeding programs, we maintain seed genetic diversity and develop pest- and disease-resistant seed. By providing built-in protection against pests and diseases, we can help reduce the need for additional disease and pest management tools.

Integrated pest management ("IPM"): IPM incorporates a variety of strategies to effectively manage pests within agricultural production systems in an environmentally sound way. As part of Nutrien's suite of services, our agronomists can advise growers on the development of an IPM program for their operations, including preventive practices, identification and monitoring of pests, interventions to reduce crop losses, and record keeping for planning purposes.

Conservation on the farm: Our agronomists advise growers on conservation practices, including farm biodiversity conservation plans, pollinator buffer zones, cover crops and reduced tillage. Improving the quality of uncropped areas and field borders with seed products designed to support pollinators, and increasing the use and variety of forage crops, also adds to the productivity and biodiversity surrounding agricultural land.





WASTE AND TAILINGS

STRATEGIC SDG



Why is this topic relevant to our business?

Managing waste from our operations in a way that minimizes the impact on the surrounding environment minimizes costs and reduces regulatory and reputational risks. We are committed to an overall reduction of our environmental impact by creating and implementing stewardship systems across our operations and communities.

Key waste and tailings ambition:

ESG Performance Goal/Target

Develop Retail's plastic recycling strategy and set a target by 2022

Our Approach

We manage our hazardous waste responsibly and look for opportunities to reuse or recycle our non-hazardous waste. Since mining activities can generate large volumes of byproducts and waste, we pay special attention to the

management of our potash and phosphate operations. Our tailings piles are in compliance with applicable laws, regulations and environmental standards.

Our Actions

In 2020, we implemented a Global Waste Minimization Standard to communicate non-mining waste management requirements for all Nutrien business units and locations. Each site must conduct a biennial non-mining waste review and use it to develop a site-specific waste minimization strategy, considering reduction, reuse and recycling of materials. Although our sites have two years to conduct their initial review, over two thirds of our North American sites have already completed the process.

1 HAZARDOUS WASTE MANAGEMENT

The hazardous waste we generate in our manufacturing operations includes waste chemicals, solvents, paint and spent catalyst. In order to manage hazardous waste properly, we work with our waste management suppliers to verify that the materials are registered, transported, treated, and recycled or disposed according to applicable regulatory requirements. We do not ship hazardous waste internationally.



(continued)

2 NON-HAZARDOUS WASTE MANAGEMENT

Approximately 95 percent of the waste we produce is nonhazardous. Mining waste referred to as "mine tailings" is nonhazardous waste. Potash mining and phosphate operations are the largest contributors to our waste footprint.

Our non-mining non-hazardous waste typically consists of construction and demolition debris such as scrap metal, concrete, bricks and wood. Municipal waste, paper, cardboard and plastic are also common waste materials. Although we attempt to recycle when possible, there are commodity and geographical constraints that are prohibitive for certain materials and/or locations.

The amount of hazardous and non-hazardous waste that we dispose of and recycle varies from year to year due to projects that include construction, demolitions, turnarounds and clean-ups.

Potash mining

We have six active potash mines with tailings management systems. Clay and salt tailings are byproducts of the potash mining process. Although clay and brine (salt solution) are innocuous waste, there is a potential environmental impact if brine spills onto soil (reduces productivity) or into surface water (impacts water salinity levels). We sell small quantities of salt for winter road application, but the majority is stored in tailings management systems or injected via solution into provincially licensed and approved deep wells.

Tailings management systems consist of engineered containment facilities designed to store solid tailings and brine. The systems, licensed and approved by the Saskatchewan Ministry of Environment, are equipped with instrumentation that monitors key parameters and allows us to evaluate stable performance.

At each mine site, there are environmental staff who manage the day-to-day compliance and surveillance needs of the tailings management systems. At the corporate level,

Nutrien has dedicated engineering groups, an enterprise risk management group and a centralized SH&E group that support risk assessment and auditing of these facilities. We also hire third parties with expertise in engineering, construction and decommissioning activities to support us as we develop, implement and maintain our tailings systems safely.

Tailings management includes safe storage in:

Tailings and brine ponds: We protect surrounding water bodies and aguifers by building containment appropriate for each storage pond, typically consisting of engineered dykes, engineered slurry-walls or compacted earth trench barriers. Areas surrounding tailings ponds are also closely monitored with routine inspections, investigations and monitoring of surrounding environmental conditions.

Tailings piles: We separate the liquid from the solids through gravity drainage. The salt is stored in piles that are closely monitored through routine inspections, investigations and examinations of surrounding environmental conditions. The salt in the piles dissolves over time through natural rainfall events. Excess liquid, or saturated brine, that is not reused in the production process is injected in deep wells into brackish (that is, non-fresh) water aquifers that are deeper than one kilometer beneath the ground surface. This process is conducted under regulatory oversight and approvals.

Phosphate operations

Phosphate fertilizer is produced by reacting sulfuric acid with phosphate rock to produce phosphoric acid, which is then reacted with ammonia to produce granulated ammonium phosphate fertilizer. This process also produces phosphogypsum as a byproduct, generated at a finished product ratio of approximately five to one. Although phosphoric acid manufacturing is not a mining operation, and phosphogypsum is not classified as a waste, we are providing this information related to phosphogypsum management in the waste management section of this report to be responsive to stakeholder concerns.

WASTE AND TAILINGS

(continued)



CASE STUDY: PARTNERSHIP TO MAXIMIZE RESOURCE USE

We are partnering with Arkema S.A. to produce anhydrous hydrofluoric acid at our Aurora, NC Phosphate site. which will provide a stable stream of earnings starting in 2022. As part of the agreement, Nutrien is implementing new technology to recover more of this valuable byproduct of phosphoric acid production. Arkema will use it to produce environmentally friendly coolants. This reduces Arkema's dependence on importing raw materials from resourceintensive sources, utilizes our byproducts for alternate use, and provides Nutrien with non-traditional industrial revenue streams.

Phosphogypsum is primarily composed of hydrated calcium sulfate but it may also contain trace metals and naturally occurring radioactive materials that were originally in the phosphate rock. Phosphogypsum can potentially be reused for a variety of applications in construction or agriculture. In North America, it is primarily stacked using the following phased process:

Phase 1 – Phosphogypsum ponds: Phosphogypsum is mixed with process water and stored temporarily in specially designed and monitored ponds. As the solids settle, the process water reports to another pond and subsequently back to the plant where it is reused in phosphoric acid production. These ponds are constructed over an impermeable liner to minimize potential impacts to soil and groundwater. As part of the required monitoring programs for the gypstack systems, we conduct routine groundwater monitoring and maintain air quality permits.

Phase 2 – Gypstacks: Over time, the solid phosphogypsum from the ponds is formed into stockpiles called gypstacks. To maintain the stability of gypstacks, they are constructed and operated in accordance with applicable engineering standards, codes and regulations. Typically, a third-party engineer develops gypstack construction designs and operating plans.

Nutrien has two active phosphate fertilizer operations, located in Aurora, NC and White Springs, FL. At Aurora, we stack phosphogypsum and also blend a portion with clay to reclaim adjacent mined lands. Nutrien also has inactive phosphogypsum stacks at three facilities in Geismar, LA, Redwater, AB, and Fort Saskatchewan, AB that are undergoing closure.

Nutrien does not currently reuse phosphogypsum on a commercial scale, primarily because of the United States Environmental Protection Agency ("US EPA") regulatory criteria established in 1989. However, in October 2020, in response to a petition by The Fertilizer Institute and its members to allow for phosphogypsum reuse, the EPA has conditionally granted the request for reuse of phosphogypsum in government road construction projects. Phosphogypsum is safely recycled for use

in many other areas of the world, and studies show no health or environmental risks. Reuse of phosphogypsum for alternate purposes could reduce the environmental footprint and liabilities associated with gypstack closure.

Packaging and plastic waste

Plastic is an ideal material for packaging our crop protection and seed products because it is inert (it doesn't react with our products), lightweight and cost effective. We understand the growing global concern with single-use plastics and are exploring ways to either reduce plastic packaging or increase its reuse and recycling.

We have started shipping some crop protection products in large reusable or recyclable plastic containers to minimize plastic waste. In 2020, we sold more than 45 million liters of our proprietary brands across Australia, of which 80 percent used large returnable containers. We own more than 60,000 reusable drums and now participate in a drum leasing program to further minimize the total number of product containers in circulation across the country.

In Canada, we are part of an industry-wide program called Cleanfarms that collects a variety of used agricultural packaging. In 2020, more than 8,200 pesticide and fertilizer one-way drums and totes were recycled from Nutrien locations through Cleanfarms. Additionally, nearly 439,000 pesticide and fertilizer jugs were recycled from Nutrien locations across Canada for a plastic recycling total of more than 210,000 kg. In 2021, Nutrien will be participating in a new Cleanfarms collection program where seed and pesticide bags can be returned and used for energy recovery.

Throughout 2020, Retail continued to enhance data collection and will increase plastic recycling in 2021 with the aim to set targets by 2022.

ADDITIONAL ENVIRONMENTAL TOPICS

Air

Our operations can affect local air quality through combustion emissions such as carbon monoxide (CO), nitrogen oxides (NOx), sulfur oxides (SOx), particulates and volatile organic compounds ("VOCs"), in addition to non-combustion air

emissions such as ammonia. Data on our releases of air emissions are available here. We continue to upgrade equipment to lower NOx-emitting technologies.

Reclamation

The reclamation process is important to our mining operations. Nutrien has a legal obligation to reclaim land used for operations and return it to a beneficial use. We work with environmental authorities to verify that land is properly restored post-mining, using local and native plant varieties. This can often result in more biodiversity after completing the reclamation process than prior to beginning operations.

1 ASSET RETIREMENT OBLIGATIONS

Each year, we estimate the cost and timing of future reclamation expenditures. At the end of 2020, our discounted asset retirement obligations ("AROs") were \$1.2 billion. Retirement obligations and their estimated costs to reclaim a site are initiated when the asset reaches its end of life; for phosphate sites, the majority of these costs are expected to be paid over the next 55 years, while costs for potash are expected to be paid after that time. We have spent \$190 million toward our AROs over the last two years.

2 RECLAMATION PROJECTS

In the past three years, we have successfully returned more than 2,800 acres of land back to productive use after phosphate rock mining:

- The North Rasmussen Ridge Mine project in Idaho was completed between 2018 and 2020 and involved approximately 4.5 million m³ of earthworks and 245 acres of revegetation.
- · At our White Springs Phosphate mine, we strive to reclaim more land than we mine on an annual basis. In 2020, we reclaimed approximately 700 acres with nearly 975 and 900 acres reclaimed in 2019 and 2018, respectively. We moved approximately 1.7 million m³ of earthworks each year.

SOCIAL

TOPICS IN THIS SECTION

- 47 COVID-19 Response
- 50 Worker Health and Safety
- 59 Equity, Diversity and Inclusion
- 61 Human Capital
- 63 Community Relations
- 65 Responsible Supply Chain
- 67 Product Responsibility

As part of Nutrien's purposedriven culture, we strive to develop respectful and positive relationships with our employees, contractors, suppliers, customers and local communities, and to contribute positively to society as a whole.



COVID-19 RESPONSE

Why is this topic relevant to our business?

In 2020, COVID-19 impacted operations, global supply chains, communities, customers and every employee who works at Nutrien. Since Nutrien's products and services are at the beginning of the food supply chain, we were deemed an essential service in our core markets and our response became critical to help farm businesses of all sizes withstand the challenges presented by the pandemic.

Our Approach

Nutrien implemented modified business plans to address the immediate risks presented by the COVID-19 pandemic and continues to plan for potential long-term issues in the agriculture and food supply chain. Our crisis management team was enacted to ensure the governance and management of COVID-19 was holistic and coordinated. We have

appropriate business continuity, health and safety protocols and communication processes in place to support key stakeholders in our value chain. We continue to analyze and adapt our response to safeguard our employees and other key stakeholders while supplying critical agricultural products and solutions to growers.

Workforce Support

Nutrien prioritized supporting our workforce during the pandemic. In 2020, no employees were laid off as a direct result of COVID-19. New hires were welcomed with virtual onboarding, including all signed summer students who were retained despite the pandemic. Our employee listening program pivoted to focus on COVID-19 impacts to our employees and formed content for our executive-led townhalls held throughout 2020.

1 EMPLOYEE SAFETY, HEALTH AND WELLNESS

Subject matter experts worked directly with our ELT to provide Nutrien-specific advice and share accurate information with our employees in a timely fashion. We established protocols and leveraged technology including remote offices, travel restrictions and video conferencing. All Nutrien locations developed

location-specific plans that addressed staffing, production, maintenance, PPE, capital projects and turnarounds. At the end of 2020, more than 20 percent of employees were equipped with proximity monitoring and contact tracing technology to help limit and track the spread of COVID-19, with additional implementation planned in 2021.

Given the increased levels of stress and uncertainty that all employees experienced this year, Nutrien increased its focus on physical and mental wellness. Employees have ongoing access to a Nutrien Wellness Hub, which includes free, thirdparty counseling, as well as other professional services. We also provided access to resources such as at-home exercise classes and live webinars from mental health experts.



- ✓ SASB RT-CH-210a.1
- ✓ SASB RT-CH-320a.2
- ✓ SASB EM-MM-210b.1

COVID-19 RESPONSE

(continued)

2 CONTRACTOR REQUIREMENTS

Contractors (including subcontractors, service providers and vendors) are critical to Nutrien's safe execution of work. Nutrien engaged contractors to communicate, plan and share resources related to safe work during the pandemic. Each site has specific risk, operation, regional and regulatory expectations, which are

communicated to all contractors and visitors to address this enhanced level of safety. Action plans included communication, scheduling work, entry procedures, contact tracing, temperature checks, distancing, mask usage, and enhanced cleaning and sanitization processes.



CASE STUDY: REMOTE AUDIT STRATEGY

COVID-related measures including travel restrictions and physical distancing guidelines limited the ability to conduct on-site internal audit activities, a key component of Nutrien's SH&E management strategy. Our audit team was able to conduct their work with limited in-person presence at a site by leveraging augmented reality tools connecting office-based auditors with site personnel using hard-hat-mounted and intrinsically safe visual and audio equipment in real time. This method increased efficiencies, reduced travel costs, reduced interruptions to site operations and continued to protect Nutrien employees.

Business Resiliency and Continuity

Nutrien's response to safeguard our operations at the beginning of the pandemic was immediate, and we continue to make a concerted effort to reduce business interruptions. Our online retail e-commerce platform has allowed us to facilitate efficient delivery of products, services and solutions.

1 SUPPLY CHAIN RESILIENCE

As COVID-19 significantly impacted global supply chains, we took the following steps to identify and mitigate risks and enhance the resiliency of our supply chain:

- Identified high-risk inbound materials and used this analysis to monitor upstream risks and identify potential issues, as well as identify stock on hand for critical items
- Ensured we had the right balance of contingency raw materials and truck capacity, which protected our operations from lagging response times. We also consolidated our mining and fertilizer manufacturing future needs and negotiated volumes and deliveries with top-tier suppliers.

- Developed alternate suppliers, as a precaution, and tested new materials to mitigate potential supply risks while maintaining open and frequent channels of communication with our key suppliers.
- · Documented force majeure notifications and utilized our third-party supplier risk tools and open-source industry news to gain visibility on our critical suppliers allowing for improved agility.
- Worked with governments to modify requirements so that our essential supply chain could safely continue operations within the fast-changing environment.

2 ACCESS TO CAPITAL

Throughout the year, demand for crop inputs continued to be strong, reflecting Nutrien's position as an essential component of the global food supply chain. In March 2020, Nutrien secured an additional \$1.5 billion of credit, ensuring that the Company had sufficient liquidity while the financial markets navigated

COVID-19 RESPONSE (continued)

the pandemic. By ensuring access to liquidity in the early days of COVID-19, Nutrien was able to continue to support our employee base and our communities, run our business safely and support growers globally. The additional credit facilities were subsequently closed in May 2020.

3 CYBERSECURITY

The COVID-19 pandemic elevated the cyberthreat landscape in 2020. Nutrien adapted by ensuring our most critical asset, our people, are cyber safe both at work and at home. Educating our people, beyond the workplace, emphasizes our commitment to creating a culture of cyber safety. We completed additional training focused on phishing attacks and training sessions for employees, their family members and contractors.

Community Outreach

Feeding the world is at the core of what we do. When the pandemic hit, we focused on keeping food programs running without disruption in the communities where we live and operate. During 2020, Nutrien doubled our existing food security support to provide approximately \$2 million for 200 food programs in North America, Australia, South America and Trinidad. By collaborating with our local charities, we were able to help them get food to tables, even under the most difficult circumstances. Watch our Community Impact Video.

We also supported communities through volunteering and inkind donations. We expanded our volunteer program for 2020

so employees could take up to five paid days off to safely volunteer in their community. In addition, in 2020 Nutrien distributed more than 112,000 N95 masks to critical care units in the health system, and more than 43,000 surgical masks and numerous other items to communities in need. Nutrien's support also included providing our virtual agricultureeducation resources for free through our education partners. Learn more here.



CASE STUDY: PROJETO AGROSOCIAL (PROJECT AGROSOCIAL)

During 2020, Nutrien donated approximately \$15,000 for social initiatives in Goiás state, Brazil to fight COVID-19 and its economic consequences in vulnerable communities. Nutrien's donation provided groceries and PPE such as masks and hand sanitizer, plus four electronic lung ventilators for the public hospital in Goiás.

WORKER HEAITH AND SAFFTY

STRATEGIC SDGS





SAFETY RATES

(cases per 200,000 hours worked)



RIF: Recordable Injury Frequency LTIF: Lost-Time Injury Frequency

2020 was Nutrien's most successful year to date due to our increased focus on safety and growing our culture of care.

ANALYST CORNER

- ✓ SASB RT-CH-320a.1
- ✓ SASB RT-CH-320a.2
- ✓ SASB RT-CH-540a.1
- ✓ SASB EM-MM-320a.1

SH&E policy

Why is this topic relevant to our business?

Nothing is more important to Nutrien than the safety and well-being of our employees, our contractors and the communities we serve. Ensuring safe operations and keeping employees and contractors safe are essential elements of delivering strong business performance. Strong safety standards and programs help us maintain our reputation as an industry leader and responsible employer while reducing our legal and financial exposure.

Key workplace safety ambitions:

ESG Performance Goals/Targets

- Achieve top-quartile safety performance across all business units by end of 2025
- · Zero Serious Injury and Fatality ("SIF") incidents annually
- Expand safety coaching into performance conversations for all employees by 2022
- Develop Loss of Containment¹ reduction strategy and provide related target by 2023

1 An unplanned release of material from its process that has the potential to impact human health and/or the environment.

Our Approach

Nutrien's SH&E strategy of "home safe, every day" brings our safety vision, principles and priorities to life and guides our daily actions and behaviors. We continue to enhance company-wide programs for common activities across Nutrien while evolving

specific practices to target key safety risks unique to each of our business units. We consider contractors to be our partners in all areas of SH&E.

Our Performance

Our safety culture starts with our organizational leaders and extends to everyone involved in our business, and 2020 was our most successful year to date. Our company-wide performance in 2020 showed decreases in key safety metrics due to our increased focus on safety and growing Nutrien's culture of care. We set targets each year for both leading (proactive) and lagging (reactive) consolidated safety indicators which are tied to executive compensation. Learn more in the 2021 Proxy Circular.

Nutrien's 2030 Commitments include ESG goals and targets to drive performance improvement in key areas, including several

workplace health and safety targets. To complement Nutrien's SH&E strategy, we are also focusing on Loss of Containment, which is a blend of process safety and environmental incident performance. This is important to our business as it drives prevention of high-risk incidents and shows our commitment to the care and protection of people and the environment.

Since Nutrien is the only publicly traded company with operations across the agriculture value chain, comparing our company-wide safety data with single-industry chemical peers

(continued)

or benchmarks can be misleading. Nutrien's business comprises four distinct operating segments:

- Retail: represents approximately 60 percent of Nutrien's total workhours. We market crop inputs and provide agronomic application services for growers through more than 2,000 retail locations with nearly 29,000 leased or owned retail vehicles and application equipment.
- Potash: includes five conventional underground mines and one solution mine, each with surface processing operations. These operations represent approximately 10 percent of Nutrien's total workhours.
- Nitrogen: represents approximately 14 percent of Nutrien's total workhours. Our nitrogen operations include nine ammonia manufacturing plants and five upgrade facilities.

• Phosphate: represents approximately 9 percent of Nutrien's total workhours. We operate two integrated phosphate mines and mineral processing complexes plus four plants that manufacture phosphate products.

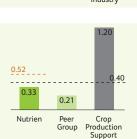
To maintain focus on each business unit's unique risks and needs, we set annual safety targets at the business unit level in addition to those established corporate-wide. Our Retail business unit has leading safety metrics when compared to our industry group and is comparable to other companies with large vehicle fleets and a large seasonal workforce. Our fertilizer manufacturing and phosphate mining operations generally have lower injury rates than our Retail operations as a result of the amount of driving, equipment operation and seasonal workers involved in Retail. Nutrien's potash business has higher injury rates than our phosphate mining operations due to the nature of underground mining.

Nutrien 2020 health and safety performance compared to peers and industry

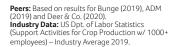
Nutrien's retail and nitrogen operations had better than top quartile safety performance for both TRI and LTI rates in 2020. Our potash and phosphate operations showed similar performance for LTI rates indicating fewer serious injuries, but higher TRI rates. We are addressing this through hazard identification, assessment and mitigation in conjunction with incident investigation, review of critical procedures, training and actively searching out best practices.

- --- Top Quartile
- --- Nutrien's 2020 Targets

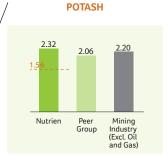


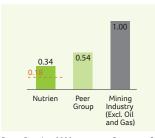


LTI (per 200,000 hours)



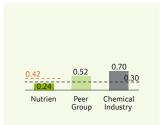
Industry

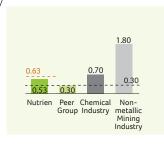




Peers: Based on 2020 average performance of Saskatchewan Mining Association companies. Industry Data: US Dpt. of Labor Statistics. (Mining ex Oil and Gas w/ 1000+ employees) -Industry Average 2019. Top Quartile data not available for Mining ex Oil and Gas w/ 1000+ Employees.

NITROGEN

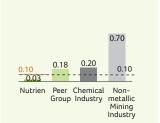




PHOSPHATE







Peers: Based on 2019 results for Mosaic, OCP Industry Data: US Dpt. of Labor Statistics (Chemical Manufacturing w/ 1000+ employees) and Nonmetallic Mineral Mining and Ouarrying - Industry Average 2019 (All Sizes). Top Quartile data not available for Nonmetallic Mining Industry (All Sizes or 1000+ employees).

WORKER HEALTH AND SAFETY

(continued)

FORT SASKATCHEWAN. GEISMAR AND TRINIDAD EACH

WITHOUT A RECORDABLE INIURY (2019 - 2020)

HOMESTEAD DISTRIBUTION TERMINAL

> YFARS WITHOUT A LOST-TIME INJURY

Foundations for Safety

To lay a strong foundation for SH&E, we use comprehensive management systems and analytical tools, build common beliefs around safety, promote proactive safety practices, and focus on serious injury prevention and emergency preparedness. Nutrien achieved our best safety year to date due to the tremendous motivation, communication and effort over the last two years to unify our culture and focus collectively on SH&E performance.

1 SYSTEMS

Nutrien's SH&E Management System integrates our SH&E strategy, structuring company-wide processes, procedures and expectations for our global operations. The system is the framework for consistent protection of employees, contractors, environment and assets. Nutrien's SH&E Management System is deliberately structured recognizing the uniqueness of each site and business unit by assessing risks and controls based on each specific workforce, operation and geography. The system continues to evolve as Nutrien explores the adoption of technology, industry best practices and learnings from within operations to promote continual improvement.

We continue to use an online, centralized incident management system for our business units to track and analyze SH&E data. The functionality was expanded in 2020 to include a real-time internal performance dashboard accessible by all employees. We use leading and lagging indicators to measure our performance. Our reports provide a clear, accurate and meaningful picture of how we're doing and enable decisions to keep us, our environment, communities, assets and information safe.

2 EVOLVING SAFETY CULTURE

Nutrien's SH&E professionals are focused on the development and implementation of our safety strategy to grow a culture of care by demonstrating the right behaviors and actions. Nutrien's safety strategy is centered around caring for ourselves, each other and our community by employing four pillars under the Nutrien SH&E Culture: Lead, Collaborate, Challenge and Trust.





Safety, health and environment is not a secret. Leading means stating our values, modeling our actions and sharing our successes or challenges.

- · We are each accountable.
- · We lead by example and model the way.
- · We speak up and we look out for each other.
- · We lead at home and in our communities.



Collaborate

Our success will be determined by our ability to come together over a shared set of values and culture.

- We create an inclusive environment where all are valued and respected.
- · We listen, collaborate, share information and support each other.



Challenge

Challenging ourselves and the status guo will permit Nutrien to realize continual improvement, growth and innovation.

- · We celebrate success but are always looking to improve.
- We challenge the status quo.
- · We do it safely or not at all.



Establishing trust in each other and the organization enhances our ability to lead in safety, health and environment.

- We understand we make mistakes and gain value from the learnings.
- · We provide positive recognition frequently.
- · We value feedback.
- We create a psychologically safe environment where it is safe to speak up.
- · We are empowered to stop work when necessary.

WORKER HEALTH AND SAFETY

(continued)



CASE STUDY: SAFETY IMPROVEMENTS DURING INTEGRATION

Nutrien has expanded our Australian retail operations in recent years through the acquisition of Ruralco. As part of the integration process, the Australian safety team took the best legacy and Nutrien policies and procedures to encourage collaboration and improvement of safety culture and performance from day one. This formed the Nutrien Ag Solutions Australia best practice model for the unique Australian business and promoted shared ownership of safety.

3 PROACTIVE SAFETY PRACTICES

Stop work obligation: At Nutrien, stopping work is viewed as an important action to address an immediate or potential risk and not considered negative. Nutrien empowers and expects anyone at any level of the organization to exercise their obligation to stop work when they are unsure, when work or conditions are unsafe, or to ask for clarification. Further, anyone who is asked to stop work is expected to be positive and collaborative. Stopping work includes in the office, on-site, driving and at home.

Frequent and structured pause: Frequent and structured pauses are deliberate, short breaks taken during work activity, individually or as a team, to check in with ourselves, our coworkers and our working environment. This is an effective tool to maintain worker focus by assessing changing conditions and identifying new or missed hazards since work began. All Nutrien operating locations promote a program for pausing whenever needed.

Training and competency development: Safety training is a core method for building experience in safe environments.

- Leader coaching: We have eight full-time Safety Leader Coaches dedicated to supporting front-line leaders in improving their safety leadership skills. Safety Leader Coaching is a blend of safety leadership professional development and in-field support designed to develop coaching behaviors that improve safety at the front line of our operations. In 2020, a survey was introduced to provide front-line leaders with feedback from their crews on key safety behaviors encouraged as part of the program.
- SH&E Summit week: In 2020, Nutrien hosted a virtual fiveday-long SH&E Summit open to all employees across our operations. The sessions focused on collaboration, leadership, innovation, SIF prevention, sustainability, mental health and sharing best practices.

- Training simulators: We have implemented process simulators at all our ammonia production plants for initial and refresher operator training. The simulators are also used to design and test process control changes before implementation.
- Safety campaigns: In 2020, we also hosted safety campaigns on specific focus areas such as burn awareness, distracted driving, electrical safety, and mental health and wellness.
- Ammonia training: Anhydrous ammonia (NH₂), a pressurized liquid, is one of the most hazardous products we produce and distribute. In 2020, we developed e-learning training modules and an Operating Standards Manual to structure how we handle NH₂ in our North American retail operations.

Continuous improvement teams and safety committees:

We have continuous improvement teams and safety committees located at every production site, who are empowered to address topics such as SH&E, Process Safety Management ("PSM"), plant reliability, technology, turnaround and conduct of operations.

4 SERIOUS INJURY PREVENTION

Our goal is for all employees and contractors go home safe every day. Personnel at our sites are encouraged to identify hazards to prevent serious injuries and our facility teams focus on eliminating these hazards. This could involve changes to facilities, procedures and/or the use of technology.

Nutrien's Life Critical Global Standards outline the expectations that enable Nutrien to help prevent serious injuries or fatalities in our nine most hazardous working conditions. During 2020, our Retail business unit updated its management system and intranet site to reflect current risks and compliance needs, allowing access to the information needed to conduct work according to governing regulations, company policy and best management practices.

(continued)

5 TECHNOLOGY ADOPTION

Critical to the achievement of Nutrien's safety vision, we continue to evaluate and employ technology to help eliminate hazards and risk while improving productivity and performance, for example:

- Where possible, we use drones to complete high-elevation and underwater inspections and maintenance, along with other tasks that are high risk, difficult to access or time consuming, such as property security checks or pond liner inspections.
- Our Cory, SK Potash mine rescue teams use remote-controlled fire extinguishing equipment on tracks to rapidly cool and extinguish fire from a safe distance and perform fast clean-ups.
- Our Aurora, NC Phosphate mine has removed equipment operators from higher-risk mine areas through their remotecontrol bulldozer program. This provides operators with a greater field of view and enhanced visibility, restrictions to unsafe terrain, and reduced exposure to environmental elements and ergonomic strain.

6 EMERGENCY PREPAREDNESS AND RESPONSE

Emergency preparedness plans are in place and regularly tested at every Nutrien mine, and fertilizer production and storage facility. Our approach is to be proactive, operationalized, riskbased and fit for purpose. We have emergency response teams at all production facilities who are regularly trained and drilled on site-specific risks using simulations and live scenarios. Nutrien also has a central support team who provide subject matter expertise to site emergency teams related to preparedness, forecasting, equipment, training, response and risk.

Protecting the community members where we operate is a top priority for Nutrien. Nutrien facilities work with local and regional emergency management services regularly to plan responses, communicate change and participate in drills or exercises. Many Nutrien sites engage as active members in Local Emergency Planning Committees. Regular testing of the emergency response plan occurs throughout the year and, to the extent possible, includes local emergency response teams as well as community members. We provide the public with toll-free phone numbers to report any concerns.

Business-Specific Safety Risks

We are working to reduce our injury rates company-wide and we focus on the critical safety risks in each business area (those with the highest potential for serious injury) to eliminate serious injuries and fatalities.

1 DRIVING SAFETY

With Nutrien's large fleet of trucks, forklifts, tractors, and fertilizer and seed applicators, driving safety remains a top priority, especially in our Retail locations, where most drivers are based. Nutrien has various measures in place to support safe driving practices. These include defensive driver training, as well as telematics devices to provide feedback on safe driving habits. In 2021, we will expand our safe driving efforts by establishing clear driving guidelines and aligning practices across our sites.

2 HEAVY MOBILE EQUIPMENT

Heavy mobile equipment refers to large haul trucks, bulldozers and other equipment used for open pit mining in our Phosphate business unit. Because we can have up to 60 units active on a site at any time, there is risk of equipment collisions. At our Aurora site, more than 90 percent of mobile equipment have proximitydetection sensors to help equipment operators avoid objects in their "blind spot". We are evaluating other sites for implementation. All heavy mobile equipment operators working at mines receive safety training and must conduct a 360° walkaround – a visual inspection of the area around a vehicle – prior to operating it.

Overview

Social

WORKER HEALTH AND SAFETY

(continued)

3 UNDERGROUND MINE SAFETY

Nutrien's potash is produced from underground mines, which present specific risks including ground fall, fires and water inflow that require mitigation.

Preventing ground fall: Ground fall, when rock falls from the roof into the mine, poses a risk to workers and equipment by potentially disrupting ventilation and blocking critical emergency escape routes. We mitigate ground fall risks by ensuring appropriate mine design, adhering to robust hazard recognition and remediation processes, and providing specific training on ground fall hazard recognition.

Preventing fires: We follow strict safe work practices, including requiring hot work permits and emphasizing hazard recognition. Nutrien's mines are designed with underground refuge stations, and fire alarm, detection and suppression systems to mitigate fire risk and impact. All workers are trained in our emergency response plans and we hold fire drills several times each year. Each site has trained emergency response teams and equipment (for example, fire trucks and emergency hoists) that can also provide aid to other mining sites.

Preventing and managing water inflow: Underground potash mining has the potential to encounter water-bearing geological features that can result in water entering the mine (that is, water inflow). Inflows are not uncommon in conventional mines and the risk is mitigated by thorough exploration (for example, 3D seismic, surface drill holes) before mining activities commence, and the use of responsible mining practices during operations.

Nutrien's Cory, Lanigan and Vanscoy, SK mines have minor water inflows. Work to fully characterize and manage these inflows has been focused and sustained. To manage inflows, we use pumps and pipelines to divert the water flow away from active mine workings and out of the mine. To date, these inflows have had no impact on potash production.

4 PROCESS SAFETY

Process safety focuses on reducing unexpected releases of hazardous materials or energy from piping and process equipment to protect people, the environment and assets from potential chemical exposures, fires and explosions.

Nitrogen and phosphate: Process safety is critical in Nutrien's nitrogen and phosphate facilities, which adhere to a systematic and comprehensive process safety management program based on management commitment, understanding hazards and risks, management of risks, and learning from experience. Key focus areas for our leading indicators include procedures and competency training, change management, and mechanical integrity. Our process safety management program ensures that our facilities are well designed, safely operated and properly maintained throughout the lifecycle of the facility.

Nutrien's focus on process safety is particularly relevant at our facilities that produce ammonia-based fertilizers. Ammonia is toxic if inhaled and has the potential to be flammable or explosive. A release into the atmosphere could impact employees and contractors on site as well as our surrounding communities.

Potash: Our Process Safety and Integrity Management ("PSIM") program, with Occupational Safety and Health Administration ("OSHA") process safety principles adapted to potash mining, continues to guide our process safety approach at all Nutrien potash mining sites. We continue to use robust risk-based inspection techniques. We combined techniques from electrical, mechanical and structural disciplines into a single platform to monitor that inspections are performed regularly and repairs are made promptly. Our intent is early detection and prevention of unplanned down time and potentially unsafe occurrences. In 2020, we completed approximately 4,000 asset integrity inspections.

(continued)

| Performance | / | 2020 | / | 2019 | / | 2018 |
|---|-------|------|-----|------|-----|------|
| Tier 1 Process Safety Incidents ¹ (count) | . / - | 9 | _ ′ | 6 | _ ′ | NPR |
| Tier 2 Process Safety Incidents ² (count) | - | 24 | _ | 23 | _ | NPR |
| Tier 1 Process Safety Total Incident Rate 1,4 (cases per 200,000 hours worked) | | 0.04 | _ | 0.07 | _ | NPR |
| Tier 2 Process Safety Total Incident Rate ^{2,4} (cases per 200,000 hours worked) | | 0.12 | _ | 0.27 | _ | NPR |
| Percentage of Nutrien Retail facilities certified by ResponsibleAg (US) ³ | | 63 | _ | 67 | _ | 70 |
| Percentage of Nutrien agricultural chemical Retail centers accredited by Agsafe (Australia) | - | 100 | | 100 | | 100 |
| | | | | | | |

¹ Includes Tier 1 process safety events (that is, loss of primary containment with the greatest consequence) as described in the American Petroleum Institute Recommended Practice 754. 2020 incidents include Nutrien Aq Solutions US, Nitrogen and Phosphate, while 2019 incidents include only Nitrogen and Phosphate.

We expanded the scope of process safety incident reporting in 2020 to include Nutrien Ag Solutions US, where in previous years, only our nitrogen and phosphate operations were included. The apparent decline in process safety total incident rates for 2020 is a result of this change in reporting scope. Our retail operations have high exposure hours and relatively low process safety incidents. Our potash operations are excluded from these figures as they are entirely Canadian-based and PSM reporting is a US requirement.

5 STORAGE SAFETY

Nutrien has the largest agriculture retail chain and distribution network in the US with significant amounts of product in storage. Our retail and storage facilities follow industry best practices, including ResponsibleAg in the US and Agsafe in Australia. The primary storage safety responsibility is to monitor that all chemicals stored in the warehouses are appropriately segregated and handled.

Ammonia storage: Secure storage of ammonia products is critical because a product release could cause a safety hazard in the local area. All large storage facilities have fencing, alarm systems and surveillance cameras.

Fire prevention: Some fertilizers are highly flammable. To prevent fires at our storage facilities, we conduct fire risk analyses to determine the locations with higher risks of fire. We also review our emergency response plans with local responders annually to confirm that they are aware of our flammable products and where they are stored.

Engulfment prevention: We implement engineering and administrative controls to prevent engulfment, which refers to being surrounded and overcome by a granular or liquid substance. Controls include appropriate design of product storage buildings, installing effective barriers, restricting access to stockpiles and maintaining procedures for safely accessing product.

² Includes Tier 2 process safety events (that is, loss of primary containment with moderate consequence) as described in the American Petroleum Institute Recommended Practice 754. 2020 incidents include Nutrien Ag Solutions US, Nitrogen and Phosphate, while 2019 incidents include only Nitrogen and Phosphate.

³ Due to COVID-19 travel restrictions, many sites were unable to complete the ResponsibleAg certification process in 2020 as planned.

⁴ Numbers from 2019 have been restated since the publication of our 2020 ESG Report to align incident and exposure hour scope. The 2019 rate includes Nitrogen and Phosphate exposure hours while the 2020 rate includes exposure hours for Nutrien Ag Solutions US, Nitrogen and Phosphate. NPR not previously reported

(continued)

MOVED IN 2020

CANADIAN NATIONAL RAILWAY

SAFE HANDLING

NORFOLK SOUTHERN THOROUGHBRED

CHEMICAL SAFETY

CANADIAN PACIFIC RAILWAY



BNSF RAILWAY COMPANY



6 PRODUCT TRANSPORT SAFETY

Nutrien maintains a complex supply chain that uses rail, truck and marine transportation to move our products from our production facilities through our network of distribution facilities to our end customers. We conduct our transportation activities in accordance with all regulatory requirements as well as an integrated approach that includes additional focus on the safety and environmental protection of the communities where we operate. Nutrien's objective is achieving best-in-class performance through our commitment to have Nutrien products safely transported from production, terminal and retail locations.

Rail: Nutrien ships both raw materials and finished goods by rail, in a fleet of over 16,000 railcars that are either owned or leased. More than 120,000 railcars of product were moved in 2020. Approximately 35 percent of Nutrien's rail shipments were classified as hazardous.

• Ammonia is transported in specialized pressure tank cars that help prevent releases in the event of a derailment or

high-impact incident. Nutrien has nearly 600 railcars that exceed the highest industry specifications (for example, extra thick steel, reinforced shield).

• To help prevent non-accidental ammonia releases ("NARs"), we require our facilities and carriers to conduct railcar inspections and preventive maintenance and enforce strict loading and unloading procedures at our facilities.

Nutrien is a leader in the safe handling of hazardous materials by rail and has been recognized as such by multiple North American railroads.

Trucking: Nutrien hires trucking companies to transport our products from our production facilities to our manufacturing customers and distribution network, moving more than 90,000 truckloads annually. Our practices to manage safety during truck transport include a screening process with annual review, certification verification, safety data sheets ("SDSs") and detailed records.

| Performance | / | 2020 | / | 2019 | / | 2018 |
|--|-------|------|-------|------|-------|------|
| Total environmental incidents | _ ′ _ | 23 | - / - | 23 | - / - | 22 |
| Reportable quantity releases | | 20 | - | 22 | | 20 |
| Non-compliances | | 0 | - | 0 | | 1 |
| Enforcement actions | | 3 | - | 1 | | 1 |
| Environmental incident frequency (per 200,000 hours worked) | | 0.07 | - | 0.07 | | 0.07 |
| Non-accidental ammonia release¹ rate (releases per thousand railcar movements) | | 0.00 | - | 0.00 | | 0.07 |

¹ A non-accidental ammonia release ("NAR") is the unintentional release of ammonia while in transit, including loading and dispensing of the product, which is not caused by a derailment, collision or other rail-related accident.

(continued)



CASE STUDY: NEXT GENERATION POTASH - MORE SUSTAINABLE, **EFFICIENT AND SAFER POTASH OPERATIONS**

The active mining face presents the single largest safety risk to our underground workers and we are implementing autonomous and teleremote operations to remove them from that risk. All mining machines at our Rocanville, SK Potash facility are equipped to run without an operator present during shift changes and breaks. Our Lanigan, SK Potash mine utilizes a more complex method of underground mining and is leading the way in developing autonomous borers with a first successful trial of tele-remote mining from the surface. They have successfully piloted clay seam detection using artificial intelligence, which will allow for autonomous control of the mining machine.

We are empowering our workforce to make safety and value-driven decisions with real-time information supported by our digital capabilities. Advanced process controls and smart planning is expected to optimize our production process, increase production capabilities, improve environmental performance and lower production costs per tonne.

CASE STUDY: NUTRIEN'S APPROACH TO AMMONIUM NITRATE

In 2020, unrelated to Nutrien, there was an explosion in Beirut, Lebanon from an ammonium nitrate ("AN") product called AN prill, which is a solid ammonia compound that can be used as a controlled explosive in mining. We produce AN prill at two facilities: Redwater, AB and Augusta, GA. We also purchase AN prill for resale from a third-party manufacturer. AN prill was less than 1 percent of Nutrien's total 2020 North American fertilizer manufacturing and European product sales. Nutrien only sells AN prill to a small list of eligible industrial customers in the mining industry. We are an industry leader in the safe production, storage and shipment of AN, accomplished through a robust and thorough program including standard operating procedures, training, climate-controlled storage, enhanced security measures and emergency mitigation systems. Nutrien carefully accounts for our AN prill production and maintains traceability on AN prill deliveries. All manufactured and purchased AN prill is accounted for under the Canadian government restricted component program or the US Department of Homeland Security explosive precursor program.

EQUITY, DIVERSITY AND INCLUSION

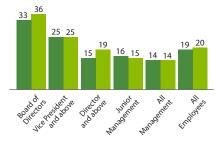
STRATEGIC SDGS





WOMEN AT VARIOUS LEVELS

• 2019 • **2020**



Our efforts have resulted in increased gender diversity across most categories.

Why is this topic relevant to our business?

Promoting equity, diversity and inclusive growth across our value chain enhances Nutrien's organizational strength, reflects the diversity of our stakeholders and creates more just communities. We are committed to providing all employees with a respectful and inclusive workplace.

Key EDI ambitions:

2030 Commitments

- Create new grower financial solutions to strengthen social, economic and environmental outcomes in agriculture
- Leverage our farm-focused technology partnerships and investments to drive positive impact in industry and grower innovation and inclusion

FSG Performance Goals/Targets

- Women comprise no fewer than 30 percent of the Board of Directors (maintain annually)
- 30 percent women in leadership (director and above) by 2025
- By 2025, 25 percent of local spend in our potash business has direct Indigenous economic impact and annually, 100 percent of contracted potash suppliers have local Indigenous inclusion commitments

Our Approach

In 2020, we placed considerable focus and effort on equity, diversity and inclusion ("EDI") at Nutrien. As part of this effort, we developed a comprehensive strategy founded in leadership accountability and internal and external action plans, processes and strategies.

To support our efforts, we have

- Structured a new EDI center of excellence, which will be operationalized in early 2021.
- Established a global Inclusion Council of senior operational and functional leaders from each business unit and

- geography. The Inclusion Council is sponsored by our President & CEO, Chuck Magro, and has the mandate and accountability to enable the EDI function and champion EDI strategies and tactics throughout the organization.
- Introduced an updated and more socially relevant Respect in the Workplace Policy for the organization and are developing a supportive training campaign.
- Early in 2021, we created a new position and appointed a Vice President of EDI



✓ SASB EM-MM-210a.3 Respect in the Workplace Policy **Inclusive Workplace Commitment** EDI at Nutrien

Promoting Diversity Internally

We have established goals for representation of women in senior positions and track progress with the ELT on a regular basis.

We are also working toward more representation of Indigenous People across all job categories in Canada. In keeping with our

"match to market" global strategy, we will continue working toward the attraction and retention of Indigenous and racialized people and veterans.

EQUITY, DIVERSITY AND INCLUSION

(continued)



CASE STUDY: OLÁ. NUTRIEN **SOLUÇÕES AGRÍCOLAS!**

Nutrien Brazil has a new name: Nutrien Soluções Agrícolas. Although Nutrien Ag Solutions is appropriate for our company globally, it does not convey to our Brazilian, Portuguese-speaking farmers and our team the power of being an agricultural and farming solutions company. To show respect to Brazilian culture, language, customers and employees, we needed a name in Portuguese that translates very clearly our business mission and objective.

Each business unit within Nutrien has developed a tailored EDI plan to identify and implement strategies appropriate to advance EDI forward in a way that strengthens business strategy. Our Retail business unit has an especially diverse employee base and unique regional considerations with operations across the US, Canada, South America and Australia.

1 BUILDING INCLUSION CAPABILITIES

We are building EDI competency in Nutrien leaders by incorporating EDI training in our "Purpose-Driven Leadership" program, which involves more than 130 leaders, including our front-line supervisors. Broader EDI training for all employees and additional resources are available on our new EDI Learning Hub.

We continued Nutrien Academy in 2020, which is a leadership development program to build business competency in women at junior levels of the organization.

Our Employee Resource Groups ("ERGs") remain active in the areas of support for women, women in non-traditional environments and roles, LGBTQ+, young professionals, and military. In early 2021, a new ERG for Black employees was launched.

2 DIVERSE AND INCLUSIVE RECRUITMENT

In 2020, we redesigned our recruitment processes to promote a diverse selection of candidates by better using technology to attract more diversity of candidates, encouraging the use of diverse candidate profiles and utilizing more inclusive wording in our job postings. All Nutrien recruiters are trained in considering inclusivity when recruiting and an inclusive interview training kit for leaders is also available.

We established external partnerships to better promote Nutrien job opportunities to women and underrepresented groups, and our recruiters participated in and/or hosted more than 35 diversity-related career events in 2020.

Engaging Indigenous Communities

With a large operating base in Canada, we strive to contribute to closing the gaps faced by Indigenous Peoples, particularly in the areas of education and employment.

We see an opportunity to leverage our corporate influence to build meaningful relationships and deepen conversation around reconciliation, offer equitable access to employment at Nutrien, provide supply chain opportunities in our operations, and educate our leadership and employees regarding the history of Canada and Indigenous Peoples. We also collaborate with Indigenous Peoples on community programs and advocacy and offer special training opportunities.

We are committed to growing inclusive capacities through our Indigenous Internship Program in Canada by creating opportunities for nearly 90 professional students since 2015. On average, we retain 20 to 25 percent of these graduates as valuable full-time employees. In 2021, we expect to launch an early career program for women and other underrepresented talent based on best practices from our Indigenous Internship Program.

Nutrien's Indigenous Content Playbook is an evolving resource that provides guidance on how Nutrien incorporates Indigenous participation and content into our business practices and supply chain. We use the Playbook to support our suppliers in their own inclusion efforts. Learn more here.

We engage in positive actions across cultures and sectors. Learn more about our partnership with Saskatoon Tribal Council ("STC") here.

As an international company, we acknowledge the diversity in the regions where we operate. We understand the importance of recognizing the unique histories of each operating territory and how it has influenced our contemporary context. While our past efforts have focused on engaging the Indigenous community in Canada, we commit to learning and exploring how Nutrien can contribute positively to EDI across our operations including efforts directed at increasing representation of visible minorities.

HUMAN CAPITAL

STRATEGIC SDG



FNGAGEMENT SCORE



Why is this topic relevant to our business?

Ensuring that Nutrien employees feel valued, respected and engaged in their own success are essential factors in attracting and retaining the talented people who will help Nutrien achieve its purpose – to grow our world from the ground up.

Our Approach

We attract and retain our people by investing in the experience and engagement of our employees, developing the best talent, and employing effective succession management processes to safeguard the long-term achievement of our strategy.

1 EMPLOYEE EXPERIENCE AND ENGAGEMENT

Employees who have positive experiences at work are more likely to be engaged in working safely and collaboratively toward our shared company goals. We promote employee engagement by focusing on the overall employee experience: offering meaningful work and inspiration, providing the right rewards, ensuring mental and physical well-being, and giving a true sense of belonging.

Employee listening: Listening to our employees helps us identify ways we can improve the employee experience and increase talent retention. Nutrien's Employee Listening strategy continued in 2020, helping us understand employee sentiment in this unique year. We frequently monitored the level of concern with respect to COVID-19 and asked employees what they needed from us to support their well-being. This feedback led to the direct development of numerous processes and protocols to protect the safety of our employees, their families and our customers. In 2020, we received more than 5,000 responses to our short surveys and continue to hear positively

from our employees about the level of support we provided. Read more about our COVID-19 response here.

We also completed Nutrien's first global Employee Engagement Survey in 2020. Employees responded favorably to five engagement questions, resulting in an engagement score of 89 percent. Action planning from survey results began across the organization early in 2021.

Total rewards: Nutrien offers competitive salaries, comprehensive benefits and performance-based incentives. Our compensation framework and processes provide guidance in pay decisions while supporting our commitment to pay equity and inclusion.

Supporting new hires: In 2020, Nutrien updated our onboarding process to improve the new hire experience. Improvements include a streamlined online process with new hire documentation, easily accessible resources and a new hire survey to promote continuous improvement.

2 DEVELOPING THE BEST TALENT

At Nutrien, our success is possible because our people can grow their careers. Supporting the career development of our employees is a key driver of employee engagement and essential for employee retention. Each employee is empowered

HUMAN CAPITAL

(continued)

TURNOVER RATE

to own their career, with Nutrien's support in their growth and development.

Career development planning: In 2020, we enhanced our suite of materials to support employees and managers in career development planning. We also implemented a system to gather information from our employees on their prior experience, career aspirations and personal interests to enable greater internal talent mobility.

Learning management system: Nutrien's Learning Management System ("LMS") is now available for our corporate, manufacturing and North American retail employees. This centralized location for learning and development creates an improved educational experience and has greatly expanded the learning opportunities and development paths available to employees. The LMS houses an array of learning content that will continue to be updated into 2021. Benefits of the LMS include personal dashboards for employees and leaders, the ability to self-assign courses, and leader insights into training needs with the ability to track and report on training.

Learning and development programs: In 2020, we purchased learning subscriptions through a variety of vendors so that every Nutrien employee has access to thousands of professional development programs and content in 2021. We delivered our "Purpose-Driven Leadership" program for senior and frontline leaders and provided global access to a new "Authentic Leadership Program" for all Nutrien employees.

3 SUCCESSION MANAGEMENT

Our succession management program enables the retention of talent, identification of talent gaps, and creation of succession plans, aligning organizational needs with employee expertise and career aspirations. Succession planning also provides Nutrien with a forward-looking roadmap to support continuity within our operations when changes occur.

Our succession planning proactively identifies roles most critical to the achievement of Nutrien's strategy and purpose, while further identifying a high-potential talent pool for the purpose of accelerating development and allowing Nutrien to proactively manage diversity into areas of maximum impact. For these critical roles, an internal talent pool and pipeline is developed, and an external market analysis is performed. Our ELT reviews the senior leadership succession roles and candidate progression on a monthly basis. Beginning in 2021, we will begin succession planning for certain mid-level leadership roles, highly specialized roles and difficult to fill positions.

We continue to use real-time dashboards to provide executives and Human Resources access to important metrics such as employee turnover and workforce demographics. This information allows us to continuously monitor our organizational health.

4 TALENT ATTRACTION

We intend to attract the best talent to help us achieve our purpose. In 2020, Nutrien's talent attraction and sourcing group hired more than 1,700 people and had a 94 percent acceptance rate on all employment offers.

5 COLLECTIVE BARGAINING, UNIONS AND LABOR RELATIONS

Nutrien supports freedom of association and values, effective communication, collaboration with unions, and dispute resolution procedures for grievance processes. Maintaining positive relations with unions is important to our business. Our employees can join an employee association or labor union, consistent with national or regional laws and practices. We strive for productive relationships with the unions representing our employees. Nutrien has entered into 14 collective bargaining agreements with labor unions representing 19 percent of our total employees. Two of these agreements are currently under negotiation. In jurisdictions such as Italy, Australia and Brazil, employees are self-represented through other forms of collective bargaining such as enterprise award agreements or work councils. Of our non-North American employees, 35 percent are covered by these types of arrangements.

COMMUNITY RELATIONS

STRATEGIC SDGS







Why is this topic relevant to our business?

Positive and transparent community relationships are essential to the successful operation of our business, especially in our smaller communities where we have a larger operational footprint in mining and production. Strong community relations provide opportunities for employee attraction, engagement and retention. Above all, we have the opportunity to make a positive impact on the communities where we do business and collaborate with community partners to progress shared sustainability priorities.

Key community relations ambitions:

ESG Performance Goals/Targets

- Develop and implement a targeted approach to measure the impact of our sustainability and community investments by 2023
- Employees volunteer at least 25,000 hours by 2025

Our Approach

We build relationships with local communities by engaging and investing.

1 ENGAGING COMMUNITY PARTNERS

Around the world, Nutrien representatives build community relations by participating in community-based groups such as industry associations, local Chambers of Commerce, charitable and non-charitable organizations and local first responder committees. The format and purpose of the community engagement varies; however, the primary function is focused on two-way communication. For example, in Saskatchewan we facilitate a multi-stakeholder council that met virtually in 2020 to discuss community issues.

2 INVESTING IN COMMUNITIES

Nutrien facilities, terminals, retail branches and offices are supported by a company-wide internal network and central governance. Community engagement is customized to the location and may also be supported by employee resource groups and community relations committees.

We invest in community initiatives that address existing needs in local communities, and further our strategic sustainability priorities of promoting sustainable agriculture, reducing our environmental footprint and promoting EDI. We also support organizations aligned with employee interests through a matching gift program and paid volunteer time for eligible employees.



✓ SASB EM-MM-210b.1 Community Relations **Position Statement** Community Investment

COMMUNITY RELATIONS

(continued)

Highlights around the globe:

- Food solutions and food banks: Nutrien doubled our existing support to provide approximately \$2 million in support of food solutions around the globe, reaching about 200 food agencies in five countries. Read more here.
- Grower mental health support: We have committed AUD\$390,000 over three years to support Lifeline, Australia's largest suicide prevention service, backing its mission to prevent suicide and provide crisis support and mental health services. Nutrien is also a marquee partner with Do More Ag, a charitable organization with a mission to champion the mental well-being of Canadian producers and change the culture of agriculture to one where all are empowered to take care of their mental well-being.
- Smallholder training and support: We provide funding for the 4R Solution Project, a collaboration between government, industry and industry associations to advance sustainable

agriculture in Sub-Saharan Africa. More than 80,000 smallholder farmers in Ethiopia, Ghana and Senegal participate in this program. The 4R Solution Project provides training for growers on how to implement 4R Nutrient Stewardship (the Right Source of plant nutrients at the Right Rate, Right Time and Right Place) into fertilizer management practices. In this way, farmers, many of whom are women, can increase their crop yields and profitability. Learn more here.

• Youth education programs: We engage with youth to teach them about sustainable agriculture and environmental stewardship. In 2020, we partnered with 150 non-profit educators and reached more than 646,000 people with programs that are hands-on, science-based and curriculumlinked. In 2020, many of our community partners seamlessly pivoted their delivery models to e-learning resources to enable access. Learn more here.

| Performance | / 2020 | / 2019 | / 2018 |
|--------------------------------|--------|--------|--------|
| Community investment | \$18M | \$17M | \$17M |
| Community partnerships (count) | >2,500 | >2,300 | >2,500 |



2021

RESPONSIBLE SUPPLY CHAIN

STRATEGIC SDGS





Why is this topic relevant to our business?

An ethical and reliable supply chain is essential to Nutrien's risk management strategy, helping us uphold our company standards for social and labor practices and building resilience to environmental, political or other disruptive events. Transparency is linked to trust, and consumers want to trust the companies they buy from.

Our Approach

Nutrien is committed to responsible sourcing. Our Supplier Code of Ethics (Supplier Code) applies to suppliers that provide products or services to Nutrien around the world.

Our work to build a responsible supply chain includes working with suppliers that uphold our standards, reviewing supplier performance, including human rights protection in our contractual obligations and fostering a diverse supply chain.

1 SUPPLIER AND CONTRACTOR EVALUATION

Supplier screening: We evaluate potential suppliers based on industry, geographic region, government interaction and expected annual spend. We use a data-based approach to assign each potential supplier a pre-tier level, allowing for identification of potential risks or benefits in line with our criteria before awarding a contract.

Nutrien's potential top-tier suppliers must complete an onboarding evaluation to meet our basic requirements, including corporate social responsibility and a commitment to excellence in health and environmental practices. These potential suppliers must review and agree to Nutrien's Supplier Code. We use a risk-based approach to identify those suppliers that warrant more detailed reviews. Our risk evaluation of potential top-tier suppliers includes financial, cybersecurity, environmental and ethical supply chain ratings to enhance supplier screening.

Supplier performance management: Nutrien's current supplier tiers are based on annual spend, risk of interruption of supply and geographical footprint. Tier 1 suppliers work across our global business units and have the highest annual average historical spend and/or highest potential of supply risk and impact to our business. We reevaluate current supplier tiers regularly to enable appropriate performance management based on historical spend and relevant changes. A data-based approach is being designed to evaluate current supplier tier levels, allowing adjustments to be made on a more regular basis.

We review the performance of our Tier 1 suppliers on a semiannual or annual basis. We also review certain Tier 2 and 3 suppliers based on internal supplier risk assessments. Our supplier risk module for monitoring existing suppliers will be active in 2021. This tool will allow for a deeper risk-based evaluation of Nutrien's current supply chain in areas of legal, environmental, financial, cybersecurity, product safety, supplier sustainability and integrity. As part of the Supplier Code due diligence program, Nutrien conducts in-person supplier audits as necessary on a risk basis.

Ingredient and feedstock evaluations: Nutrien only sources active ingredients from suppliers that are certified by the local certifying agency where they are sold and/or distributed (for example, EPA in the US). Active ingredients sourced from non-US sources are purchased only from manufacturers that are



✓ SASB EM-MM-510a.1

✓ SASB EM-MM-210a.3 Supplier Code of Ethics

Indigenous Content Playbook

RESPONSIBLE **SUPPLY CHAIN**

(continued)

PROCUREMENT SPEND

EPA approved. We evaluate new and existing suppliers within and outside the US via a third-party audit of their facilities and processes. Products are tested frequently at our formulation sites to confirm the ingredient or feedstock meets our specifications.

Our Product Stewardship and Procurement teams work together in a joint feedstock evaluation process to confirm regulatory status, origin and manufacturing quality of materials and chemicals before approval for incorporation into finished products. We are evaluating the integration of raw material sustainability factors in this approval process.

Contractor management: Our different business units have varying on-site contractor needs. For instance, our Retail facilities have few contractors on site while, at our nitrogen, potash and phosphate sites, contractors represent between 20 and 60 percent of the hours worked. On-site contractors must be registered and in compliance (that is, with an A or B rating) with ISNetworld, an online contractor and supplier management platform that collects and verifies key contractor information, including safety, health and environmental performance. These standards are required by any contractor entering into a work area within a Nutrien facility.

2 CONTRACTUAL OBLIGATIONS

Suppliers are required through the contract process to comply with our Supplier Code, which includes expectations for non-discrimination, a commitment to compliance with human rights laws, and the avoidance of forced labor, child labor, and human trafficking. We do not knowingly procure materials from conflict zones, which is prohibited by our Supplier Code.

Commitment by our suppliers to the principles of the Supplier Code is significant in Nutrien's decision-making process. Where suppliers refuse to follow the principles of the Supplier Code or show signs that they are not committed to improving their

practices to comply with its principles, Nutrien will review its relationship with the supplier. Where contractual commitments and local law permit, this review may include termination of our relationship with the non-compliant supplier.

3 DIVERSITY IN THE SUPPLY CHAIN

Nutrien is committed to give fair consideration to all qualified local contractors and suppliers as we procure goods and services. Nutrien expects the same commitment from our suppliers through their own network. Nutrien actively builds our business environment to reflect the diversity of the communities in which we operate, and to grow opportunities for Indigenous communities, people and businesses throughout our supply chain.

Increased rollout of Indigenous Content Playbook: Our Indigenous supplier relationships have taken decades to build. Nutrien provides guidance for our suppliers to also build meaningful relationships with Indigenous partners by sharing realistic sample strategies, goals and targets through our Indigenous Content Playbook.

Nutrien invests in growing relationships with Indigenous-owned companies. We are working toward equalizing the environment by creating project and employment opportunities with clear expectations of how Indigenous ownership and true economic participation can drive successful outcomes. We encourage competitive bids, safe project delivery and sustainable growth. Our Indigenous suppliers have created measurable results and are consistently unlocking the potential for true competitive advantages. The value that is created through building relationships with Indigenous communities and people provides sustainability and stability back to the local economy. In 2020, we partnered with 38 Indigenous suppliers in Canada, of which approximately 70 percent are majority-owned (that is, 51 percent or more Indigenous-owned).

Our stakeholders expect us to minimize impacts on human and animal health related to the agricultural

products we manufacture and sell. This is a responsibility we take seriously as a company.

PRODUCT RESPONSIBILITY

Why is this topic relevant to our business?

STRATEGIC SDG



Key product stewardship ambition:

ESG Performance Goal/Target

Complete risk evaluation profiles of NPK (fertilizer) manufactured products by 2023

Our Approach

Product stewardship extends the scope of SH&E management beyond our facility gates to take a lifecycle approach to lowering product environmental, safety and social impacts of concern. Nutrien strives to improve our product sustainability profile across procurement, product development, manufacturing, distribution and end-use application. We have a product stewardship management standard as part of our SH&E Management System that guides our activities and a crossfunctional product stewardship network with the responsibility for development, communication and integration of standards, policies and work procedures into the mining and fertilizer manufacturing business. Our approach is recognized under the International Fertilizer Association Protect and Sustain program.

Nutrien determines product suitability based on scientific evidence, regulatory requirements and a holistic product risk rating approach. We promote the safe and sustainable use of our products by providing information and support to customers

on appropriate use, handling and application. Nutrien may use animal-based testing to confirm human health safety assurance only in rare occasions when scientifically valid alternative methods are not available. Read our Animal Testing policy for details.

1 EVIDENCE-BASED DECISIONS

We consider the social impacts of our products from development to point of sale, especially their impacts on human health and the environment. To make informed decisions about product suitability and use based on science and empirical evidence, we monitor research closely and follow product and ingredient reviews by regulatory agencies, including toxicology and environmental impact studies, chemical hazard classification reviews, substances of very high concern bulletins, government chemical risk assessment reports, and regional and global environmental impact reports.



ANALYST CORNER

- ✓ SASB RT-CH-410b.2
- ✓ SASB RT-CH-410c.1
- ✓ SASB RT-CH-530a.1

GMO Position Statement Pesticides Position Statement Existing and Emerging Product **Technology Position Statement Animal Testing Policy**

PRODUCT RESPONSIBILITY

(continued)



Genetically Modified Organisms ("GMOs"): Nutrien is directly involved in breeding canola, cotton and rice seed using native and GMO traits, and we sell genetically modified seeds for many crops. Research conducted by national and international scientific authorities has concluded that GMO food crops do not pose any more risk to people, animals or the environment than any other food crop. We continue to monitor GMO technology development and impact studies regarding human health and environmental impact to obtain appropriate and accurate guidance before making future product decisions.

Pesticides and pollinators (neonicotinoids): Pesticides, specifically the class of chemicals known as neonicotinoids, continue to draw a level of public concern regarding their safety and potential impacts on bees and other pollinators. We acknowledge stakeholder concerns related to the use of neonicotinoids. Based on available evidence and our commitment to product stewardship, we believe that by strictly adhering to the approved label uses and applications of these products, growers can safely use neonicotinoid products for pest management to sustainably produce food. Governmental agencies such as Health Canada and the US EPA provide regulatory oversight for the safe use of these products. We are actively engaged in studies regarding possible impacts to non-target species and modification of product labels to provide further notification of prohibited use and directions for effective use to product users. Of our total crop protection product sales, only a very small percentage are neonicotinoids.

2 PRODUCT RATING SYSTEM

Nutrien is developing a holistic risk-based product rating approach to create impact profiles for our fertilizer manufactured products. Each profile incorporates information on ingredient origin, regulatory compliance, product chemical hazard

classification (for example, not hazardous, toxic to the environment, corrosive), sustainability (for example, potential to contribute to ecosystem degradation, conflict material rating) and supply chain risk factors (for example, security potential for illegal use). These profiles will be used to include environmental and social impact in product decision making. We have drafted the first four of our largest volume fertilizer profiles. Our intent is to refine the process and progress additional profiles through 2021.

3 SAFE PRODUCT HANDLING AND **APPLICATION**

Nutrien's products are developed for specific applications. Use outside the mandated scope as defined on the label, in contravention of crop advisor guidance or misuse in general have the potential to negatively impact human and animal health or the environment. We promote the safe use of Nutrien products through product disclosure, manufacturing and retail systems that help enforce regulatory standards, and the provision of training to employees and contractors who handle and apply our products.

Disclosure and transparency:

- We provide SDSs for all chemical products we manufacture and sell. SDSs contain information on the potential health effects of exposure to chemicals or other potentially dangerous substances and include safe handling and personal protective equipment information for those products. SDSs are available at our production facilities, during product transport, at our Retail locations, and to our customers and the public on our website.
- Our product labels and SDSs are compliant with local laws and regulations where we sell our products (for example, US

| Performance | / 2020 | / 2019 | / 2018 |
|---|--------|--------|--------|
| Percentage of Nutrien seed sales that contain GMOs | 82% | 86%1 | 89% |
| Percentage of total Nutrien sales that contain GMOs | 7% | 7%¹ | 8% |

¹ Numbers from 2019 have been restated since the publication of our 2020 ESG Report to include our South American and Australian business. 2018 includes only the US and Canada

Overview

Social

Governance

PRODUCT RESPONSIBILITY (continued)

EPA, Canada Pest Management Regulatory Agency ("PMRA"), European REACH, Fertilizer Act and Chemical Labelling and Packaging ("CLP"), and Canadian Food Inspection Agency ("CFIA")).

- We provide online and telephone technical support for retailers, customers and employees on the interpretation of SDSs and labels, on the appropriate use of chemicals (for example, reactivity with other chemicals) and medical emergency situations.
- · Our product stewardship team periodically reviews and updates the information on our labels and in our fertilizer manufacturing and retail data systems.

Safe application of agricultural products: Pesticides and herbicides are highly regulated products in the markets where we operate. We comply with all applicable regulations and have policies and procedures for the safe and appropriate use of the products we sell. Policies and procedures include

- A retail system that enforces licensing and certification for pesticide product handling and use. This system regulates which pesticide products can be sold in which regions, which Retail locations are certified to sell which products, and which customers have the appropriate license or permit to purchase a product.
- Formalized regulatory change monitoring and participation in industry-regulator working groups.
- Appropriate job descriptions to identify regulatory compliance responsibilities.

Training: We require that our employees, contractors and contracted service providers (that is, applicators) have the required industry and regional training and qualifications to handle and apply our products (for example, Pest Control Advisor, Qualified Applicator License or Certificate), and our technical services include training and advice on best practices for products sold through our Retail business unit.



GOVERNANCE

TOPICS IN THIS SECTION

- 71 Corporate Governance
- 73 Governance of ESG Risks
- 76 Integrity
- 78 Cybersecurity and Data Privacy
- 79 Additional Governance Topics

We embed strong corporate governance systems and principles in our business through oversight from our Board of Directors, strong integrity values that inform our activities, and rigorous systems for cybersecurity and data privacy.

2020 Highlights 36% OF BOARD MEMBERS OF SHAREHOLDERS APPROVED ARE WOMEN OUR "SAY ON PAY" EXECUTIVE CYBERSECURITY TRAINING FOR COMPENSATION APPROACH HIGHER-RISK BUSINESS AREAS

CORPORATE GOVERNANCE

| Performance | 2020 |
|--|--------|
| BOARD AND GOVERNANCE INFORMATION | |
| Total Number of Directors | 11 |
| Number of Independent Directors | 10 |
| Separate Chair and CEO | Yes |
| Independent Chair (required) | Yes |
| Annual Board Evaluation Process | Yes |
| Board Meetings Held in 2020 | 9 |
| Average Meeting Attendance | 99% |
| BOARD RENEWAL AND DIVERSITY | |
| Annual Election of Directors | Yes |
| Majority Voting Policy | Yes |
| Average Age of Directors | 59 |
| Mandatory Retirement Age | 72 |
| Average Director Tenure | 3 yrs¹ |
| Women Board Members (after 2020 AGM) | 36% |
| Designated Group Board Members ² | 54% |
| Board Diversity Policy | Yes |

1 The following directors previously served as a director of one of Nutrien's legacy entities commencing in the following years: Mr. Burley (2009); Ms. Clark (2016); Mr. Girling (2006); Ms. Hubbs (2016); Ms. Laberge (2003); Ms. Madere (2014); Mr. Magro (2013); Mr. Martell (2007); Mr. Regent (2015); Mr. Schmidt (2013).

Yes

Yes

92.2%

SHAREHOLDER RIGHTS

Say on Pay Advisory Vote

Votes in Favor of Compensation

Approach at the 2020 AGM

Proxy Access

2 Designated Groups are defined as women, Indigenous peoples, persons with disabilities and members of visible minorities.

Why is this topic relevant to our business?

Corporate governance that is aligned with Nutrien's purpose and focused on reducing risk exposure increases our competitiveness as a company while creating long-term value and resiliency for all our stakeholders.

Our Approach

Nutrien's sound governance and committed leadership enable us to integrate a cohesive ESG strategy and practices across our company including Nutrien's Feeding the Future Plan. Our governance structure includes our Board and its committees, together with our ELT. ELT remuneration is impacted by corporate performance and ESG-related targets.

Nutrien's Corporate Governance Framework includes policies and processes that define the roles of the Board and the ELT. It also helps us embed high ethical standards in our business practices. The Board oversees prudent management of Nutrien's business including oversight of ESG issues such as our strategy to address climate-related risks and opportunities and EDI.

NUTRIEN'S GOVERNANCE STRUCTURE

We are committed to setting the "tone from the top" to create a culture of integrity throughout the organization by engraining good corporate governance systems and principles in our business operation and culture including our ESG practices. Key aspects of our governance structure include clearly defined mandates and charters for our Board and its committees and oversight of corporate strategy execution and risk management including ESG-related matters.

In 2020, the Safety, Health, Environment and Security Committee was renamed the Safety & Sustainability ("S&S") Committee, to reflect its oversight of Nutrien's general strategy

and policies relating to safe and sustainable business practices, including the environment, health, climaterelated risks and opportunities, and cybersecurity, as well as further demonstrating Nutrien's commitment to the broader components of sustainability. It directly reports to and advises the Board on these matters.

For additional information on our S&S Committee as well as our governance structure see Nutrien's 2021 Proxy Circular.

BOARD DIVERSITY

Having a mix of directors on the Board from varied backgrounds and with a diverse range of perspectives and insights fosters enhanced decision-making capacity and promotes better corporate governance. Our Board Diversity Policy includes a target that women comprise no fewer than 30 percent of the Board members. Nutrien is also a member of the 30% Club, an international group of Chairs and CEOs promoting gender diversity on boards and senior management teams. Our Board diversity criteria formally acknowledge the groups designated under recent amendments to the Canada Business Corporations Act, including women, Indigenous Peoples, persons with disabilities and members of visible minorities, and confirms our commitment to diversity in recruitment practices.

Of our directors, four are women (36 percent of the total number of directors), one is an Indigenous person (9 percent of

CORPORATE GOVERNANCE

(continued)

the total number of directors) and one is a member of a visible minority (9 percent of the total number of directors). None of our directors self-identify as a person with a disability.

BOARD RENEWAL AND SKILLS

While director term limits can assist with Board refreshment, there may be circumstances where the Board does not want to lose the deeper business knowledge and experience of a longer serving director. We therefore do not limit the time that a director can serve on the Board. Under the Board's Corporate Governance Framework, a director's retirement age is generally 72, but the Board may also request a director extend his or her term of service beyond the retirement age.

The Board regularly reviews the Board skills matrix for skills and experience in sustainability matters as desired competencies. For more information, see Nutrien's 2021 Proxy Circular.

EXECUTIVE COMPENSATION

Our approach to evaluation and compensation considers ESG factors. In 2020, we introduced three social responsibility metrics to our annual incentive scorecard to underline the importance of ESG. This included adding a component of leadership compensation that was tied directly to Nutrien's ESG performance during the year to demonstrate our focus on key ESG risks and progress across our sustainability strategic pillars.

Nutrien's compensation framework is based on a pay-forperformance philosophy. Currently, 88 percent of CEO compensation is at-risk, and 77 percent of other named executive officers' compensation is at-risk. There were no changes to our executive compensation framework in 2020. We include an advisory "say on pay" vote at our annual meetings (in line with 2019 amendments in Bill C-97).



2021

GOVERNANCE OF ESG RISKS

Why is this topic relevant to our business?

As ESG risks and opportunities are generally longer term in nature, incorporating them into our strategic and business planning activities helps enhance our planning, decision making and resilience. Understanding emerging trends, regulations and societal expectations allows us to capitalize on opportunities for growth and mitigate potential risk.

Our Approach

Risk management is governed by our Board and board committees, who oversee our ELT in understanding the principal risks to our business, including ESG and climate-related risks. Responsibility and accountability for risk management is embedded in all levels of our organization, and we integrate risk management into key decision-making processes and strategy. In 2020, we supported this integration by incorporating our sustainability function under the corporate development and strategy portfolio.

To further demonstrate our commitment to sustainability, we took further steps to improve upon our ESG governance in 2020 and in the first quarter of 2021:

- Published Nutrien's first ESG Report in April 2020.
- · Renamed our Safety, Health, Environment and Security Committee to Safety & Sustainability ("S&S") Committee, with a new Chair.

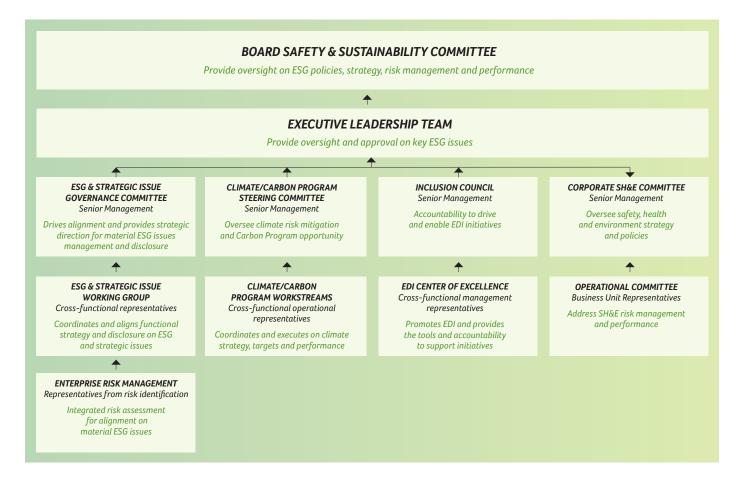
- Established key ESG-related committees at the senior leadership and operational levels: the ESG & Strategic Issue Governance Committee, the Climate/Carbon Program Steering Committee and the Inclusion Council.
- Developed a review process to complete requests from ESG research firms that integrates key functional areas, with the intent to drive better ESG research ratings. As a result, Nutrien improved its ratings in all key ESG research and made substantial progress compared to our peer groups.
- PublishedNutrien's Feeding the Future Plan in April 2021, which highlights our key ESG initiatives, goals and targets.



(continued)

ESG GOVERNANCE IS INTEGRATED THROUGHOUT NUTRIEN

Nutrien ESG Governance Structure



BOARD OVERSIGHT AND ACTIVITIES

The S&S Committee has oversight responsibilities with respect to our activities as they relate to ensuring that appropriate policies, systems and personnel are in place to support safe and sustainable business practices. This includes overseeing our general strategy and policies relating to sustainability matters such as climate-related risks and opportunities. It directly reports to and advises the Board on these matters. The Committee met four times in 2020.



GOVERNANCE OF ESG RISKS

(continued)

In 2020, as part of the mandate to oversee significant policies and management systems, the S&S Committee

- reviewed safety, health, environmental and cybersecurity performance summaries to identify any performance issues;
- reviewed the safety, health, environment and cybersecurity audit plan for the current and upcoming year, including Nutrien's COVID-19 safety protocols;
- reviewed with management the safety, environmental and cybersecurity emergency response planning processes;
- oversaw the Safety & Sustainability vision and strategy, and reviewed the five-year strategy and annual objectives;
- oversaw policies relating to sustainability and progress toward sustainability goals;
- · oversaw Nutrien's ESG Report; and
- oversaw Nutrien's climate risk and GHG emission strategy.

In 2020, as part of the risk and compliance requirements of its mandate, the S&S Committee

- reviewed Nutrien's remediation projects, environmental provisions and significant legal and regulatory developments;
- reviewed risks (including insurance risks) related to safety, sustainability and cybersecurity (including climate-related, technological, regulatory, data privacy and social risks);
- studied cybersecurity risk in conjunction with the Audit Committee: and
- reviewed disclosure containing significant information within the Committee's mandate.

EXECUTIVE LEADERSHIP OVERSIGHT AND ACTIVITIES

Under the oversight of the S&S Committee, Nutrien's executive leadership has the responsibility of ensuring the Company's key ESG and climate-related risks are being appropriately addressed.

In 2020, notable sustainability efforts by management included undertaking climate-related risk and opportunity assessments

and setting of our climate-related strategy and related GHG emission reduction targets. Leadership was also responsible for the establishment of our Inclusion Council and EDI to drive inclusivity into all parts of our organization and value chain.

Key groups that play an important role in the management of ESG-related risks include:

ESG & Strategic Issue Governance Committee: responsible for overseeing all ESG issues and materiality assessment to develop appropriate disclosures and communications to stakeholders.

Climate/Carbon Program Steering Committee: oversees the strategic management of risks and opportunities related to the reduction of Nutrien's GHG emissions and alignment of targets and performance metrics.

Inclusion Council: has a focused mandate to accelerate diversity and inclusion initiatives including the internal gender portion of our EDI strategy.

Corporate SH&E Committee: responsible for strategy and oversight for the care and protection of our people, environment, community and customers. Safety, health, environment, process safety and product stewardship are key areas of focus for the Committee. Nutrien's SH&E Management System provides a framework, direction, governance and tools that support our collective goal of excellence in these areas across our operations and supply chain.

HOW WE IDENTIFY ESG AND CLIMATE-RELATED RISKS

Our approach to risk management is guided by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") Enterprise Risk Management Framework (2017) and ISO 31000 Risk Management Guidelines. When considering ESG and climate-related risks, we also look to COSO's guidance on Applying Enterprise Risk Management to ESG-Related Risks and cross-reference our identified risks with SASB Chemicals and Metals and Mining Sustainability Accounting Standards along with TCFD recommendations.



INTEGRITY

STRATEGIC SDG



Why is this topic relevant to our business?

Our reputation as a company doing business with integrity is essential to building and maintaining trusting relationships with stakeholders, as well as reducing our legal and financial risk.

Key integrity ambitions:

ESG Performance Goals/Targets

- All employees, directors and officers complete mandatory Code of Ethics training annually
- Zero-tolerance policy for corruption and bribery as well as anti-competitive practices

Our Approach

1 HUMAN RIGHTS

We are committed to respecting and observing all human rights, in accordance with applicable law and the principles set forth in applicable international standards, including the Voluntary Principles on Security and Human Rights and the core conventions of the International Labor Organization ("ILO") and the United Nations ("UN") such as the UN's Universal Declaration of Human Rights, the UN's Declaration on the Rights of Indigenous Peoples, and the UN's Guiding Principles on Business and Human Rights.

Nutrien identifies and assesses human rights-related risks annually as part of our global enterprise risk management process and through our ESG material topic analysis. Nutrien has no production in countries with high levels of corruption risk as determined by Transparency International's Corruption Perception Index (that is, the 20 lowest ranked countries).

2 TRAINING

All employees, directors and officers must complete mandatory online Code of Ethics training annually. The 2020 training included Nutrien's purpose and values; fostering our speaking up culture; cybersecurity; data privacy; careful communications

(including social media); respect in the workplace (including diversity, inclusion and anti-harassment); conflicts of interest; and safety. We update and rotate topics from year to year as part of our risk-based training strategy. We also provide refresher training on a periodic basis to address new or changing legal and compliance risks. For example, in 2020, we provided targeted risk-based training for employees in higher-risk roles on anti-corruption and fair competition. In addition, more than 3,900 new hires and return-from-leave employees received basic training on anti-corruption and fair competition as part of their onboarding.

3 EMBEDDING INTEGRITY IN EVERYDAY WORK

We continued with our Integrity Moments initiative launched in 2019 to foster and normalize discussions about our core value of integrity in our everyday work. Integrity Moments involve sharing personal or other examples or stories about integrity in action at the start of meetings, including at Nutrien Board meetings. To further build engagement, we invited employees to submit their own Integrity Moments as part of a contest. Top Integrity Moments were posted on our intranet and employees voted on their favorites, with the winner receiving a donation to a charity of their choice. Integrity is also a key pillar of employee



ANALYST CORNER

- ✓ SASB EM-MM-510a.1
- ✓ SASB EM-MM-510a.2

Code of Ethics Integrity

INTEGRITY (continued)

annual performance reviews and must be demonstrated to achieve base expectations.

4 FOSTERING A SPEAKING UP CULTURE

Among several other options for speaking up (for example, in-person, email, instant messaging, direct phone calls), Nutrien also provides an externally administered Compliance Hotline for employees and the public to ask questions and report integrity concerns, with service available in seven languages. All reports are forwarded to our Compliance & Ethics department, appropriately investigated, and all necessary action is taken based on the findings.

Speaking up is promoted throughout the year with various communications on Nutrien's intranet, in townhall meetings, through memos, during worker integrity and safety shares, and via training. Leaders are also expected to adhere to and promote our "open door" policy. This means that they are available to anyone with integrity concerns, questions or complaints, and they encourage an environment where our employees feel comfortable speaking up.

Nutrien's compliance reporting rate has been relatively constant since 2018. Concerns related to Human Resource and SH&E topics were most common in 2020. Read more in the Performance table, page 88.

5 INTEGRATING A CULTURE OF INTEGRITY **AFTER ACQUISITIONS**

Nutrien continues to grow through acquisitions. We integrate compliance and integrity assessments and training into our due diligence and integration process for new acquisitions to verify

that our growing company continues to build and maintain a culture of integrity in line with our core values. These activities also serve to mitigate legal and financial risks as the business grows, such as those related to bribery and corruption. Compliance and integrity integration activities are risk-based and range from deployment of Nutrien policies, to alignment of key processes with Nutrien's programs, to provision of training.

6 ANTI-COMPETITIVE BEHAVIOR

For a business the size and scale of Nutrien, anti-competitive behavior is one risk area that can expose individuals and our business to significant penalties and impair our reputation in the marketplace. We are committed to the principles of fair competition and compliance with all global antitrust and competition laws applicable to our operations. Anti-competitive behaviors with competitors or customers and other third parties (for example, governments) are prohibited, including price fixing, agreements to limit production, exchanging competitive information and predatory pricing. We work to prevent anticompetitive behavior in the following ways:

- Competition Law Policy: Our policy outlines Nutrien's strict expectations of all employees, officers and directors, as well as third parties such as distributors, agents, resellers and contractors.
- Training: In 2020, more than 3,900 new hires and returnfrom-leave employees received basic online training on fair competition as part of their onboarding. In addition, more than 400 employees in specific roles received tailored live training on this topic.

| Key Integrity Metrics | / | 2020 | / | 2019 | / | 2018 |
|---|---|------|---|-------|-----|------|
| Employees who have completed Code of Ethics training | | All | | All | . – | All |
| Employees who have received live anti-corruption training | | 390 | | 1,010 | | 580 |
| Employees who have received live competition law training | | 410 | | 610 | | 500 |
| Total Compliance Call rate (calls per 100 employees) | | 0.67 | | 0.66 | | 0.71 |

CYBERSECURITY AND DATA PRIVACY

STRATEGIC SDG



Why is this topic relevant to our business?

Advances in technology afford us significant business opportunities. However, our interconnectedness and reliance on digital systems also expose us to the potential for digital piracy and the release of sensitive information.

Key cybersecurity ambition:

Goal/Target

Host quarterly education and training on cybersecurity for our community partners and stakeholders

Our Approach

1 CYBERSECURITY

Our continued focus on and investment into our cybersecurity program has increased our overall system control maturity and decreased cyber risk in critical areas. We focus on the fundamentals: protecting our systems, assets, data and identities, and making modifications as the cyberthreat landscape changes. Read more about our enhancements to cybersecurity in response to COVID-19 workplace changes here.

Specific activities to maintain and enhance cybersecurity include:

Robust systems: Our cybersecurity systems and processes follow the NIST framework, a voluntary framework created by industry and the US government to promote the protection of our infrastructure from cybersecurity risks. The system is assessed yearly by a third party.

Cyber risk identification and preparedness: We work with our business units and employees to identify risks by conducting cybersecurity reviews of new initiatives and cyber process hazard assessments for Nutrien's mining and fertilizer manufacturing sites.

Our cybersecurity team responds to cyber incidents and actively prepares other teams at Nutrien using an established framework. In 2020, we conducted tabletop exercises with key business leaders and technical teams to simulate real events, test our readiness and enhance their preparedness. We also conduct threat modeling to simulate potential threats and inform changes that are expected to make business processes more resilient to cyberattacks.

Training: We provide training on managing digital risks: a cybersecurity module in our mandatory Code of Ethics annual training, employee phishing campaigns and focused training for groups with higher-risk business processes. We increased cybersecurity training for our employees and contractors in 2020 due to the elevated cyberthreat landscape during COVID-19.

Reducing risk after acquisitions: Nutrien is heavily focused on growth by acquisition. To protect the organization, our cybersecurity team is "first in" from an IT standpoint to review acquired businesses' current cybersecurity systems and status.



| Performance | | 2020 |
|--|---|------|
| INFORMATION SECURITY RISK OVERSIGHT | | |
| S&S Committee independence (responsible for information security) | | 100% |
| Number of times senior leadership briefed the Board Committee on information security matters | | 4 |
| Number of directors with innovation/technology and security (including cybersecurity oversight) skills | • | 5 |
| INFORMATION SECURITY RISK MANAGEMENT | | |

Yes

No material

breaches Yes

Yes (NIST

Yes

framework)

No material

breaches

Approach for identifying and mitigating information security risks disclosed

Information security breach in the last three years

Information security insurance policy obtained

External evaluation against top information security standards

Information security training and compliance program implemented

Time since the most recent information security breach

We look for compromised systems, remediate high-risk areas and implement Nutrien's baseline cybersecurity controls prior to IT systems integration.

Partnering with communities and stakeholders: Keeping our identities, data and families safe online is important to Nutrien, our customers, our supply chain partners and our surrounding communities. Nutrien has strong cybersecurity programs and performance and intends to share our awareness of cybersecurity fundamentals with our stakeholders through cybersecurity training sessions with key customers, suppliers and community members to decrease our shared cyber risk.

2 DATA PRIVACY

We stay informed of trends and developments in data privacy laws, and update our privacy policies and practices at global, national and regional levels for the protection of employee and customer information (for example, the California Consumer Privacy Act). In addition to periodic communications and training for all employees, in 2020 we provided tailored communication and training to over 140 employees in privacy-sensitive or privacy-impacting roles, for example, Human Resources and IT. We review projects involving personal information to incorporate good privacy practices from the start.

| Key Cybersecurity Training Metrics | / | 2020 | / | 2019 | / | 2018 |
|--|-----|--------|-----|--------|-------|--------|
| Employees who have received cybersecurity training (as part of Code of Ethics) | / _ | 23,900 | / _ | 20,770 | _ / _ | 19,120 |
| Tabletop exercises to practice responding to cybersecurity events | _ | 2 | - | 3 | | 1 |
| Employees who have participated in focused cybersecurity training for higher-risk business areas | _ | 8,750 | - | 7,900 | | 6,700 |
| Employees who have received live data privacy training | | 39 | _ | 165 | | NPR |
| Employees who have received an online data privacy refresher (as part of Code of Ethics) | _ | 23,900 | - | 20,770 | | NPR |
| NPR not previously reported | _ | | - | | | |

ADDITIONAL GOVERNANCE TOPICS

Tax Policy

At Nutrien, we strive to grow our world from the ground up. This means continuing to invest in our business and the communities in which we operate to create sustainable value for all of our stakeholders. We believe that tax regimes should be stable, efficient and competitive to attract and promote this investment and value creation.

Nutrien's Retail, Potash, Nitrogen and Phosphate businesses pay a significant amount of tax across multiple jurisdictions, including income taxes, potash production taxes, royalties, property taxes and indirect taxes. In addition, Nutrien collects and remits employment taxes from our more than 23,000 permanent employees.



Tax Policy Political Advocacy Statement

ADDITIONAL GOVERNANCE TOPICS (continued)

Our tax policy comprises the following four key elements:

- Tax Compliance
- Engagement with Tax Authorities

- Tax Risk Management and Governance
- Prudent and Responsible Tax Planning

| Income Taxes and Earnings by Country (\$ million) | Income to | ax (recovery) e | Earnings (loss) before income taxes ³ | | | |
|---|-----------|-----------------|--|-------|-------|---------|
| Country | 2020 | 2019 | 2018 | 2020 | 2019 | 2018 |
| Canada | 67 | 241 | (261) | 525 | 765 | (1,195) |
| United States | (184) | 50 | 104 | (506) | 315 | 619 |
| Australia | 28 | 11 | 29 | 83 | 27 | 96 |
| Trinidad | (15) | (7) | 37 | (44) | (28) | 98 |
| Other | 27 | 21 | (2) | 324 | 229 | 258 |
| Total | (77) | 316 | (93) | 382 | 1,308 | (124) |

¹ Income tax (recovery) expense included in net earnings (loss) from continuing operations.

Income tax recovery expense in North American operations declined in 2020 compared to 2019 due to a decline in overall earnings.

Political Advocacy

Whether at local, regional or national levels, Nutrien participates in policy and political discussions that impact employees, stakeholders, shareholders and the communities where we operate. Nutrien advocates for free and fair competition in marketplaces, for safety, and for sustainable solutions to global challenges. We seek policy certainty from governments to underpin the investment decisions we make and the businesses we operate.

Our senior leaders, subject matter experts and designated employees engage with media, investors, and government and industry officials, to both understand and share observations

about policies that may impact our employees, our customers and our communities.

Nutrien continues to grow throughout the world. We respect and comply with all the laws that apply to our business operations wherever we conduct business around the world. Nutrien participates ethically, openly and responsibly in the democratic public policy development and decision-making process. As part of this process, we publicly disclose all donations or benefits to political parties or candidates per the regulations in each of the jurisdictions where we operate. See political donations reported by year in the Performance Table.

² In 2018, excludes an income tax expense of \$951 on \$4,555 of net earnings from discontinued operations that were primarily in Chile.

³ Earnings (loss) from continuing operations before income taxes.



This report focuses on Nutrien's material ESG topics, performance and key initiatives for 2020.

- Performance for the year ended December 31, 2020 is included, unless otherwise noted, for Nutrien Ltd., and our subsidiaries. Any exceptions are explicitly noted with the relevant data. When available, historical data for 2018 and 2019 is provided for comparison. Joint ventures are equity accounted and not proportionately consolidated.
- · For any asset we acquire, environmental, safety and community performance data are first provided for the year after acquisition to enable full integration of data systems.
- · We continually strive to better define performance indicators and improve our measurement systems. Any reporting limitations and exceptions are noted with the data.
- Financial data in this report is stated in US dollars, unless otherwise stated, and product and environmental data are stated in metric units. Please refer to our 2020 Annual Report for more details on our financial performance.
- References to Nutrien, our, we, or the Company mean Nutrien Ltd., and our subsidiaries, unless the context indicates otherwise
- Please see the cautionary statement on forward-looking information on page 94.
- · Materiality is used in a sustainability context for this report and refers to our ESG priorities determined with input from our stakeholders.

TERMS AND MEASURES

SCIENTIFIC TERMS

| KCI | potassium chloride |
|--------------------------------|---|
| $\overline{P_2O_5}$ | diphosphorus pentoxide |
| CO ₂ | carbon dioxide |
| CO ₂ e | carbon dioxide equivalent |
| CH ₄ | methane |
| N ₂ O | nitrous oxide |
| CO | carbon monoxide |
| NOx | nitrogen oxides |
| SOx | sulfur oxides |
| PM ₁₀ | particulate matter that is 10 micrograms per cubic meter or less in diameter |
| VOCs | volatile organic compounds |
| NH ₃ | ammonia (anhydrous) |
| GHG | greenhouse gas |
| Scope 1 | direct GHG emissions |
| Scope 2 | indirect GHG emissions associated with the generation of electricity, heating/cooling or steam purchased for own consumption |
| Scope 3 | indirect GHG emissions other than those covered in Scope 2 |
| Blue/low- carbon ammonia | ammonia produced primarily utilizing carbon capture, utilization and storage ("CCUS") or other low-emission production technologies to significantly reduce the carbon intensity of resultant production; this definition does not include end product use. |
| | |

PRODUCT TERMS AND MEASURES

| TROPOGE TERM IS THE PERSONES | | | | | | | | |
|------------------------------|--------------------------------|--|--|--|--|--|--|--|
| tonne, MT | metric ton | | | | | | | |
| Mmt | million metric tonnes | | | | | | | |
| gigajoules | one billion joules | | | | | | | |
| terajoules | one trillion joules | | | | | | | |
| MAP | monoammonium phosphate | | | | | | | |
| UAN | urea ammonium nitrate solution | | | | | | | |
| CAD | Canadian dollar | | | | | | | |
| AUD | Australian dollar | | | | | | | |
| | | | | | | | | |

Social

PERFORMANCE TABLE

| ENVIRONMENT | Units | 2020 | 2019 | 2018 | Footnote | SASB Ref. |
|---|--|-------|-------|-------|--|------------------------------|
| Emissions | | | | | | |
| GHG – Total Scope 1 Direct | million tonnes CO ₂ e | 10.42 | 10.53 | 11.19 | Direct (Scope 1) emissions occur from sources such as combustion in owned or controlled facilities or fleet or emissions from chemical production. We apply the | RT-CH-110a.1 EM-MM-110a.1 |
| GHG – Scope 1 Direct by type | million tonnes CO ₂ | 9.10 | 9.42 | 9.99 | operational control approach to define our organizational boundary. Emissions are quantified in accordance with requirements in applicable regulatory quantification | |
| | thousand tonnes CH ₄ | 2.67 | 4.95 | 2.82 | and reporting programs, including the Alberta Technology Innovation and Emissions | |
| | thousand tonnes N ₂ O | 4.20 | 3.30 | 3.80 | Reduction ("TIER") Regulation, the Canada Greenhouse Gas Reporting Program ("GHGRP") and US EPA 40 CFR Part 98 Mandatory Greenhouse Gas Reporting. | |
| GHG Intensity – Scope 1 (company-wide) | tonnes CO ₂ e per tonne product (weighted avg) | 0.47 | 0.51 | 0.53 | Emission quantification for facilities not under a regulatory reporting scheme follow similar quantification protocols. Reported emissions include CO ₂ , CH ₄ and N ₂ O. Emissions exclude CO ₂ produced in the ammonia production process and | |
| Potash GHG Intensity – Scope 1 | tonnes CO ₂ e per tonne KCl produced | 0.04 | 0.04 | 0.04 | subsequently captured and used to produce urea or transferred to a third party. Global Warming Potentials used are from the Intergovernmental Panel on Climate | |
| Nitrogen GHG Intensity – Scope 1 | tonnes CO ₂ e per tonne N produced | 1.75 | 1.73 | 1.81 | Change ("IPCC") Fourth Assessment Report (AR4). Our inventory excludes HFCs, PFCs and SF_6 as they are immaterial to Nutrien's operations. To understand Nutrien's | |
| Phosphate GHG Intensity – Scope 1 | tonnes CO ₂ e per tonne P ₂ O ₅ produced | 0.41 | 0.35 | 0.31 | calculation methodology for reported Scope 1 and 2 GHG emissions, please see our GHG Inventory Management Plan. | |
| Specialty Product GHG Intensity – Scope 1 (feed plants, Loveland Products, Inc. and Rainbow facilities) | tonnes CO ₂ e per tonne saleable product (weighted average) | 0.09 | 0.12 | 0.10 | | |
| Scope 1 emissions covered under emissions-limiting regulations | percent | 27 | 27 | NPR | | RT-CH-110a.1 EM-MM-110a.1 |
| GHG – Scope 2 Energy Indirect | million tonnes CO ₂ e | 2.74 | 2.85 | 3.05 | Indirect (Scope 2) emissions relate to emissions from the generation of purchased | |
| GHG Intensity – Scope 2 (company-wide) | tonnes CO ₃ e per tonne product (weighted average) | 0.12 | 0.14 | 0.15 | electricity, heat or steam. We apply the operational control approach to define our organizational boundary. Scope 2 emissions reported are location-based emissions. Emission factors for imported electricity are region-specific as published in the 2020 Canadian National Inventory Report ("NIR"), the US EPA Emissions & Generation Resource Integrated Database ("eGRID"), or the World Bank Group Greenhouse Gas Emissions Inventory Plan for Internal Business Operations 2017. Emission calculations include CO ₂ , CH ₄ and N ₂ O. Global Warming Potentials used are from the IPCC Fourth Assessment Report (AR4). To understand Nutrien's calculation methodology for reported Scope 1 and 2 GHG emissions, please see our GHG Inventory Management Plan. | |
| CO ₂ Captured and Sold | million tonnes CO ₂ e | 1.0 | 1.2 | 1.1 | At some Nitrogen facilities, a portion of the industrial process CO ₂ generated in ammonia manufacturing is captured and exported for commercial application (methanol production, industrial gas products or enhanced oil recovery). The CO ₂ captured and sold is net against Scope 1 process emissions. | |
| Criteria Air Contaminants: | | | | | Includes CO, NOx, SOx, particulates and VOCs as required by the Canadian National Pollutant Release Inventory. | |
| Carbon monoxide | thousand tonnes | 6.6 | 8.6 | 8.0 | | EM-MM-120a.1 |
| Oxides of nitrogen | thousand tonnes | 7.4 | 7.7 | 8.8 | | RT-CH-120a.1 EM-MM-120a.1 |
| Sulfur dioxide | thousand tonnes | 3.6 | 3.4 | 6.9 | 2020 and 2019 values are lower due to a turnaround and production changes at our Redwater, AB facility. | RT-CH-120a.1 EM-MM-120a.1 |
| Total particulate matter | thousand tonnes | 7.7 | 7.0 | 8.3 | • | EM-MM-120a.1 |

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| ENVIRONMENT (continued) | | 2020 | 2019 | 2018 | | SASB Ref. |
|---|--|-------|-------|-------|--|-------------------------------|
| Volatile organic compounds | thousand tonnes | 2.2 | 1.5 | 1.6 | | RT-CH-120a.1 EM-MM-120a.1 |
| Other Air Emissions | thousand tonnes | 10.1 | 10.2 | 11.7 | Includes non-criteria air contaminants reported to the National Pollutant Release Inventory ("NPRI") or Toxic Release Inventory ("TRI"), including ammonia, methanol, nitric acid, sulfuric acid and hydrogen fluoride. Emissions are determined for each emission source at each manufacturing facility using either source emission tests, published emission factors or engineering estimates. For 2019 and 2020, excludes substances classified as EPA Hazardous Air Pollutants. | |
| Hazardous Air Pollutants | thousand tonnes | 1.5 | 1.6 | NPR | Includes substances classified as EPA Hazardous Air Pollutants. In 2018, Hazardous Air Pollutants were included in "Other air emissions". | RT-CH-120a.1 |
| Energy | | | | | | |
| Total Energy Use | thousand terajoules | 279.2 | 279.7 | 284.8 | Includes natural gas, fuel and electricity use at our facilities. The majority of our energy use is from natural gas as feedstock. | RT-CH-130a.1, EM-MM-130a.1 |
| Natural gas consumed as feedstock | thousand terajoules | 146.0 | 152.3 | 151.0 | | |
| Fossil fuels consumed | thousand terajoules | 110.7 | 107.8 | 114.1 | Includes energy that was recovered from waste heat to produce self-generated electricity. | |
| Electricity purchased | thousand terajoules | 16.8 | 15.6 | 15.3 | | |
| Imported steam | thousand terajoules | 4.1 | 4.0 | 4.4 | | |
| Self-generated | thousand terajoules | 1.3 | 1.3 | 1.3 | Included in "Fossil fuels consumed" above. | RT-CH-130a.1 |
| Renewable energy | gigajoules | 0.0 | 0.0 | NPR | | RT-CH-130a.1, EM-MM-130a.1 |
| Energy Intensity (company-wide) | gigajoules per tonne of product (weighted average) | 12.5 | 13.5 | 12.0 | | |
| Water | | | | | | |
| Total water intake | million m³ | 238 | 217 | 208 | | RT-CH-140a.1 |
| Freshwater intake, by source: | | | | | | EM-MM-140a.1 |
| Groundwater | million m³ | 55 | 48 | 33 | | |
| Mine dewatering/depressurization | million m³ | 58 | 47 | 48 | | |
| Surface water | million m³ | 69 | 59 | 75 | | |
| Industrial/municipal water | million m ³ | 15 | 16 | 18 | | |
| Non-freshwater intake, by source: | | | | | | |
| Ocean water | million m³ | 41 | 47 | 34 | | |
| Water intake in regions with High or Extremely High Baseline Water Stress | million m ³ | 4.0 | 3.4 | 3.8 | | RT-CH-140a.1, EM-MM-140a.1 |
| Percentage water intake in regions with High or Extremely High Baseline Water Stress | percent | 1.7 | 1.6 | 1.8 | | RT-CH-140a.1, EM-MM-140a.1 |
| Total water consumed | million m ³ | 362 | NPR | NPR | We define water consumed as water withdrawn from surface water, groundwater and/or third-party sources that is not discharged back into the environment or | RT-CH-140a.1, EM-MM-140a.1 |
| Percentage water consumed in regions with High or Extremely High Baseline Water Stress | percent | 1.1 | NPR | NPR | to a third party. For larger sites, includes an estimate of precipitation within the organizational boundary. The large surface area of our phosphate mining operations as well as the relatively high precipitation that falls in these areas result in a high volume of water that requires onsite management. Our water consumption is all freshwater. | RT-CH-140a.1, EM-MM-140a.1 |

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| ENVIRONMENT (continued) | | 2020 | 2019 | 2018 | | SASB Ref. |
|--|--|-------|------|------|---|------------------------------|
| Freshwater consumption intensity – company-wide | m³ per tonne product (weighted average) | 16.1 | NPR | NPR | We define water consumed as water withdrawn from surface water, groundwater and/or third-party sources that is not discharged back into the environment or | |
| Potash freshwater consumption intensity | m³ per tonne KCl produced | 0.7 | NPR | NPR | to a third party. For larger sites, includes an estimate of precipitation within the organizational boundary. The large surface area of our phosphate mining operations as well as the relatively high precipitation that falls in these areas result in a high | |
| Nitrogen freshwater consumption intensity | m³ per tonne N produced | 7.0 | NPR | NPR | volume of water that requires onsite management. Our water consumption is all freshwater. | |
| Phosphate freshwater consumption intensity | m³ per tonne P ₂ O ₅ produced | 218.8 | NPR | NPR | | |
| Specialty Product freshwater consump- tion intensity (feed plants, Loveland Products, Inc. and Rainbow facilities) | m³ per tonne saleable product (weighted average) | 0.3 | NPR | NPR | | |
| Total water discharge, by destination | million m³ | 249 | 224 | 262 | | |
| Surface water | million m³ | 248 | 223 | 261 | | |
| Municipal treatment | million m ³ | 1 | 1 | 1 | | |
| Effluents and Waste | | | | | | |
| Discharges to onsite disposal wells | million m³ | 18 | 15 | 15 | | |
| Total non-hazardous waste: | | | | | | |
| Mining waste or byproducts disposed | million tonnes | 27 | 26 | 31 | Includes potash mining tailings and phosphogypsum byproduct. | EM-MM-150a.1 EM-MM-150a.2 |
| Non-mining waste disposed | thousand tonnes | 119 | 123 | 90 | | |
| Hazardous waste disposal | thousand tonnes | 4 | 7 | 5 | | RT-CH-150a.1 |
| Recycled materials | thousand tonnes | 28 | 35 | 39 | Includes hazardous and non-hazardous materials. | |
| Environmental Incidents | | | | | | |
| Total Environmental Incidents | count | 23 | 23 | 22 | | |
| Reportable Quantity Releases | count | 20 | 22 | 20 | Includes release quantities that exceed the US Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") thresholds and, in Potash, any release in exceedance of the Saskatchewan Environmental Code. | |
| Water-Related Reportable Quantity Releases (included in Reportable Quantity Releases above) | count | 0 | 1 | NPR | release in exceedance of the Saskatchewan Environmental code. | RT-CH-140a.2 EM-MM-140a.2 |
| Non-compliances | count | 0 | 0 | 1 | Includes non-compliance incidents that exceed \$10 thousand in capital and/or non-manpower fixed costs to prevent, correct or mitigate the non-compliance incident. | |
| Enforcement Actions | count | 3 | 1 | 1 | Includes enforcement actions with monetary fines exceeding \$1 thousand. | |
| Water-Related Enforcement Actions (included in Enforcement Actions above) | count | 2 | 0 | NPR | | RT-CH-140a.2 EM-MM-140a.2 |
| Environmental Incident Frequency | per 200,000 hours worked (employee + contractor) | 0.07 | 0.07 | 0.07 | Includes the total of Environmental Incidents (Reportable Quantity Releases, Non-compliances and Enforcement Actions) per 200,000 hours worked by employees and contractors. | |
| Non-accidental Ammonia Release Rate | releases per thousand railcar movements | 0.00 | 0.00 | 0.07 | Includes the unintentional release of ammonia while in transit, including loading and dispensing of the product, which is not caused by a derailment, collision or other rail-related accident. | |
| Environmental Fines and Penalties | \$ thousand | 142 | 176 | 441 | Amounts settled in a particular year often relate to activities in prior years. | |
| Environmental Remediation Liabilities | \$ million | 550 | 544 | 534 | Calculated on a discounted basis. | |

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| ENVIRONMENT (continued) | | 2020 | 2019 | 2018 | | SASB Ref. |
|---|--------------------|--------|--------|--------|---|--------------|
| Internal SH&E Audits | count | 667 | 655 | 27 | Increase in 2019 and 2020 is due to the scope of corporate auditing expanding to include the Retail business unit. | |
| SOCIAL | Units | 2020 | 2019 | 2018 | Footnote | SASB Ref. |
| Workplace | | | | | | |
| Total Employees | count | 25,600 | 22,540 | 22,060 | Includes full-time and part-time permanent, temporary and casual employees as of December 31. | |
| Permanent Employees | count | 23,100 | 22,300 | 20,300 | | |
| Temporary and Casual Employees | count | 2,500 | 240 | 1,760 | | |
| Permanent Employees by Region: | | | | | | |
| North America | count | 18,320 | 18,060 | 18,090 | Includes Canada, US, and Trinidad and Tobago. | |
| South America | count | 1,690 | 860 | 630 | | |
| Australia | count | 3,010 | 3,340 | 1,550 | | |
| Europe | count | 30 | 40 | 30 | | |
| Total Employee Turnover Rate | percent | 13 | 13 | 14 | The number of permanent employees who left the company due to voluntary and involuntary terminations, including retirements and deaths, as a percentage of average permanent employees for the year. | |
| Voluntary Employee Turnover Rate | percent | 9 | 9 | 9 | The number of permanent employees who left the company due to voluntary terminations as a percentage of average permanent employees for the year. Includes voluntary retirements and resignations. | |
| Involuntary Employee Turnover Rate | percent | 4 | 4 | 5 | | |
| Employee Learning and Development: | | | | | | |
| Average learning and development spend | \$ per employee | 380 | 435 | 300 | 2020 spend decreased due to reduced external training as a result of the COVID-19 pandemic. 2020 and 2019 spend includes all business units globally, while 2018 data is limited to North American Retail and manufacturing. Figures based on permanent employee count. | |
| Average hours of training | hours per employee | 26 | 18 | NPR | Increase in 2020 is due to more internal virtual training and expanded reporting by Retail. Figures based on permanent employee count. | |
| Employee Engagement | percent | 89 | N/A | N/A | Represents the average response to five engagement questions. Participation rate was 48% in 2020. | |
| Total Employees Covered by Collective Bargaining Agreements | percent | 19.3 | 16.7 | 16.5 | Based on total permanent full-time and part-time employees as of December 31. | EM-MM-310a.1 |
| Employees represented by third-party trade unions | percent | 15.4 | NPR | NPR | Based on North American permanent full-time and part-time employees as of December 31. Includes employees represented by a formal third-party organization authorized to act on behalf employees regarding wages and other working conditions of employment. | EM-MM-310a.1 |
| Employees represented by another form of collective bargaining (not involving third-party trade unions) | percent | 34.5 | NPR | NPR | Based on non-North American permanent full-time and part-time employees as of December 31. Includes employees covered by a representative body or work council to negotiate wages and/or working conditions that are legally binding agreements between the employer and employees. | EM-MM-310a.1 |
| Diversity | | | | | | |
| Women at Various Levels: | | | | | Based on permanent full-time and part-time employees as of December 31. | |
| Board | percent | 36 | 33 | 33 | | |
| Vice President and above | percent | 25 | 25 | 19 | | |

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| SOCIAL (continued) | | 2020 | 2019 | 2018 | | SASB Ref. |
|--|--|------|-------|-------|---|-------------------------------|
| Director and above | percent | 19 | 15 | 17 | | |
| Junior Management | percent | 15 | 16 | 10 | | |
| All Management | percent | 14 | 14 | 11 | | |
| All Employees | percent | 20 | 19 | 17 | | |
| Permanent Employee Age Profile: | | | | | Based on permanent full-time and part-time employees as of December 31. | |
| Under 25 | percent | 5 | 5 | 6 | | |
| 25–34 | percent | 23 | 22 | 21 | | |
| 35–44 | percent | 25 | 24 | 23 | | |
| 45–54 | percent | 22 | 23 | 22 | | |
| 55–64 | percent | 20 | 21 | 22 | | |
| Over 65 | percent | 5 | 5 | 6 | | |
| Safety | | | | | | |
| Total Recordable Injury Frequency | cases per 200,000 hours worked | 1.10 | 1.34 | 1.28 | | RT-CH-320a.1 |
| Employee Recordable Injury Frequency | cases per 200,000 hours worked | 1.27 | 1.52 | 1.50 | | |
| Contractor Recordable Injury Frequency | cases per 200,000 hours worked | 0.41 | 0.69 | 0.51 | | |
| Total Lost-Time Injury Frequency | cases per 200,000 hours worked | 0.25 | 0.34 | 0.34 | | |
| Employee Lost-Time Injury Frequency | cases per 200,000 hours worked | 0.28 | 0.41 | 0.41 | | |
| Contractor Lost-Time Injury Frequency | cases per 200,000 hours worked | 0.09 | 0.08 | 0.07 | | |
| Employee Lost-Time Severity Frequency | # days lost due to injuries/illnesses per 200,000 hours worked | 7.66 | 12.72 | 10.46 | Rates may change as the number of days lost can be incurred outside of calendar year. The 2019 and 2018 values are restated to reflect updates. | |
| Life-altering injuries (employee + contractor) | count | 1 | 1 | 2 | | |
| Employee Fatalities | count | 0 | 1 | 0 | | RT-CH-320a.1, EM-MM-320a.1 |
| Contractor Fatalities | count | 0 | 0 | 0 | | RT-CH-320a.1, EM-MM-320a.1 |
| Tier 1 Process Safety Incidents | count | 9 | 6 | NPR | Includes Tier 1 process safety events (that is, loss of primary containment with the greatest consequence) as described in the American Petroleum Institute Recommended Practice 754. 2020 incidents include Nutrien Ag Solutions US, Nitrogen and Phosphate, while 2019 incidents include only Nitrogen and Phosphate. | RT-CH-540a.1 |
| Tier 2 Process Safety Incidents | count | 24 | 23 | NPR | Includes Tier 2 process safety events (that is, loss of primary containment with moderate consequence) as described in the American Petroleum Institute Recommended Practice 754. 2020 incidents include Nutrien Ag Solutions US, Nitrogen and Phosphate, while 2019 incidents include only Nitrogen and Phosphate. | RT-CH-540a.1 |
| Tier 1 Process Safety Total Incident Rate | cases per 200,000 hours worked | 0.04 | 0.07 | NPR | Numbers from 2019 have been restated since the publication of our 2020 ESG Report to align incident and exposure hour scope. The 2019 rate includes Nitrogen | RT-CH-540a.1 |
| Tier 2 Process Safety Total Incident Rate | cases per 200,000 hours worked | 0.12 | 0.27 | NPR | and Phosphate exposure hours while 2020 includes exposure hours for Nutrien Ag Solutions US, Nitrogen and Phosphate. | RT-CH-540a.1 |

N/Av. not available NPR not previously reported 2021 Nutrien ESG Report 87

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| SOCIAL (continued) | Units | 2020 | 2019 | 2018 | Footnote | SASB Ref. |
|--|----------------------------|-------|--------|--------|---|--------------|
| Stewardship of Chemicals | | | | | | |
| Percentage of products by revenue that contain Globally Harmonized System of Classification and Labeling of Chemicals ("GHS") Category 1 and 2 Health and Environmental Hazardous Substances | percent | 32 | 33 | N/Av. | Numbers for 2019 have been restated since the publication of our 2020 ESG Report to reflect more robust reporting and the inclusion of our European distribution operations. Restated data for 2018 is not available. Includes Nutrien North American fertilizer manufactured and European distributed products. Our fertilizer-feed-industrial Category 1 and 2 products generally fall into the corrosive (acids and ammonia) or irritancy (urea, UAN, nitrate solutions, polyphosphates) categories. | RT-CH-410b.1 |
| Percentage of GHS Category 1 & 2 products by revenue that have undergone a hazard assessment | percent | N/Av. | 40 | 45 | | RT-CH-410b.1 |
| Percentage of products by revenue that contain GMOs | percent | 7 | 7 | 8 | Numbers from 2019 have been restated since the publication of our 2020 ESG Report to include our South American and Australian business. 2018 includes only the US and Canada. | RT-CH-410c.1 |
| Communities | | | | | | |
| Procurement from Indigenous suppliers | \$ million | 27 | 29 | 19 | | |
| GOVERNANCE | Units | 2020 | 2019 | 2018 | Footnote | SASB Ref. |
| Integrity | | | | | | |
| Net production in countries with high levels of corruption risk | tonnes, saleable | 0 | 0 | 0 | High levels of corruption risk as determined by Transparency International's Corruption Perception Index (20 lowest ranked countries) | EM-MM-510a.2 |
| Total Compliance Call Rate | calls per 100 employees | 0.67 | 0.66 | 0.71 | | |
| Total Compliance Calls | count | 172 | 164 | 156 | | |
| Accounting | count | 12 | 2 | 3 | | |
| Discrimination | count | 24 | 22 | 21 | | |
| Harassment (other than discrimination) | count | 25 | 32 | 14 | | |
| Human Resources (excluding discrimination and harassment) | count | 58 | 66 | 75 | | |
| Legal | count | 9 | 6 | 11 | | |
| Safety, Health, Environment and Security | count | 30 | 17 | 21 | | |
| Other | count | 14 | 19 | 11 | | |
| Participants in Anti-Corruption Training: | | | | | The decrease in 2020 training is due to only new hires and return-from-leave | |
| Online refresher | count | 3,930 | 20,770 | 19,120 | employees being scheduled per our training calendar to receive the refresher this particular year. In 2019, all employees received anti-corruption and fair competition | |
| Online course | count | 40 | 130 | 30 | refresher training as part of the Code of Ethics training. | |
| Live | count | 390 | 1,010 | 580 | | |
| Anti-competitive behavior | | | | | | |
| Participants in Antitrust/Competition Law Training: | | | | | The decrease in 2020 training is due to only new hires and return-from-leave employees being scheduled per our training calendar to receive the refresher this | |
| Online refresher | count | 3,930 | 20,770 | N/A | particular year. In 2019, all employees received anti-corruption and fair competition refresher training as part of the Code of Ethics training. | |
| Online course | count | N/A | N/A | N/A | refresher daming as part of the code of Ethics daming. | |
| Live | count | 410 | 610 | 500 | | - |

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Additional Content Social Governance

| verview | Environment |
|---------|------------------|
| VELVIEW | LIIVIIOIIIIIEIIL |

| GOVERNANCE (continued) | | 2020 | 2019 | 2018 | | SASB Ref. |
|---|-----------------|--------|--------|--------|---|-----------|
| Cybersecurity | | | | | | |
| Tabletop exercises to practice responding to cybersecurity events | count | 2 | 3 | 1 | | |
| Employees who received cybersecurity training (as part of Code of Ethics) | count | 23,900 | 20,770 | 19,120 | | |
| Employees who participated in focused cybersecurity training for higher-risk business areas | count | 8,750 | 7,900 | 6,700 | | |
| Data privacy | | | | | | |
| Employees who received live data privacy training | count | 39 | 165 | NPR | | |
| Employees who received an online data privacy refresher (as part of Code of Ethics) | count | 23,900 | 20,770 | NPR | | |
| Employees who received a targeted privacy email refresher | count | 105 | NPR | NPR | | |
| ECONOMIC | Units | 2020 | 2019 | 2018 | Footnote | SASB Ref. |
| Economic Value Generated | | | | | Other value generated is not material (such as earnings of equity accounted and dividends). | |
| Sales | \$ million | 20,908 | 20,084 | 26,046 | For 2018, includes \$6,410 million in proceeds from the sale of investments. See Nutrien's 2018 Annual Report, Note 10. 2019 has been restated. | |
| Economic Value Distributed | | | | | | |
| Operating Costs | \$ million | 15,911 | 15,547 | 13,355 | Includes freight, transportation and distribution, cost of goods sold, selling expenses, general and administrative expenses, additions to property, plant and equipment and intangibles, and other expenses. Current year depreciation and amortization is deducted. 2019 has been restated. | |
| Wages and Benefits | \$ million | 2,450 | 2,205 | 1,949 | Includes employee benefits, share-based compensation and gain on curtailment of pension plan. See Nutrien's 2020 Annual Report, Note 4. 2019 has been restated. | |
| Interest Payments, Dividends Declared and Share Repurchases | \$ million | 1,709 | 3,186 | 3,663 | Includes finance costs plus dividends declared, plus share repurchases on accrual basis. | |
| Taxes and Royalties Paid | \$ million | 286 | 628 | 1,614 | Includes corporate income, property, sales, excise and production taxes. | |
| Community Investments | \$ million | 18 | 17 | 17 | Represents cash disbursements, matching of employee gifts and in-kind contributions of equipment, goods and services, and employee volunteerism (on corporate time). | |
| Coverage of Defined Benefit Retirement Obligations | percent | 83 | 79 | 79 | Calculated on an accounting basis for registered defined benefit pension plans, and other post-employment benefit plans. | |
| Employees who are active members of defined benefit pension plans | percent | 13 | 19 | 22 | | |
| Political Donations in Canada | CAD\$ | 6,000 | 8,000 | 14,450 | | |
| Political Donations in US | USD \$ | 52,500 | 0 | 34,250 | | |
| Political Donations in Australia | USD \$ | 0 | NPR | NPR | | |
| COMPANY CONTEXT | Units | 2020 | 2019 | 2018 | All figures are provided on a gross production basis. | SASB Ref. |
| Potash production (KCl tonnes produced) | thousand tonnes | 12,595 | 11,700 | 12,842 | | |
| Nitrogen production (NH ₃ tonnes produced) | thousand tonnes | 6,063 | 6,164 | 6,372 | | |
| Phosphate production (P ₂ O ₅ tonnes produced) | thousand tonnes | 1,444 | 1,514 | 1,551 | Excludes Redwater. 2018 figures were restated to exclude Redwater. | |

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| SASB REFERENCE | METRIC | PAGE |
|-------------------------------|--|------------------------------|
| ENVIRONMENT | | |
| GHG Gas Emissions | | |
| RT-CH-110a.1, EM-MM-110a.1 | Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations | 83 |
| RT-CH-110a.2, EM-MM-110a.2 | Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets | 15-17, 19-27,31 |
| Air Quality | | |
| RT-CH-120a.1 | Air emissions of the following pollutants: (1) NOx (excluding N_2 O), (2) SOx, (3) volatile organic compounds ("VOCs"), and (4) hazardous air pollutants ("HAPs") | 83-84 |
| EM-MM-120a.1 | Air emissions of the following pollutants: (1) CO, (2) NOx (excluding N_2 O), (3) SOx, (4) particulate matter (PM ₁₀), (5) mercury (Hg), (6) lead (Pb), and (7) VOCs | 83-84 |
| Energy Management | | |
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 $[\]ensuremath{^*}$ Partially meets the disclosures suggested by the SASB Standards.

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 $Note \ 1: Nutrien \ is \ a publicly \ traded \ company; our \ common \ shares \ are \ traded \ on \ the \ Toronto \ Stock \ Exchange \ and \ the \ New \ York \ Stock \ Exchange \ under \ the \ ticker$ symbol "NTR".

Note 2: Álthough we have not formally adopted the precautionary principle (as described in the UN Rio Declaration of 1992), our sustainability practices and performance demonstrate our commitment to proactively identify and prevent or mitigate, negative impacts.

^{*} Partially meets the disclosures suggested by the GRI Standards

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FORWARD-LOOKING STATEMENTS

Certain statements and other information included in this document constitute "forward-looking information" or "forward-looking statements" (collectively, "forward-looking statements") under applicable securities laws (such statements are often accompanied by words such as "anticipate", "forecast", "expect", "believe", "may", "will", "should", "estimate", "intend" or other similar words). All statements in this document, other than those relating to historical information or current conditions, are forward-looking statements, including, but not limited to: Nutrien's business strategies, plans, prospects, opportunities and its sustainability, climate change and ESG initiatives and strategies; expectations regarding Nutrien's Feeding the Future Plan and its 2030 commitments and ESG performance targets; Nutrien's 2030 GHG emissions reduction commitment, including its plans with respect thereto and capital expenditures required to achieve such commitment; the potential deployment of additional emissions abatement projects; our initiatives to promote sustainable and productive agriculture; our commitment to invest in new technologies to support a transition to low- and zero-carbon fertilizers, including blue and green ammonia; our initiatives relating to the reduction of Scope 1 and 2 GHG emissions and assessments of Scope 3 GHG emissions, including, but not limited to, process improvements at Nutrien's nitrogen facilities, energy efficiency initiatives for its nitrogen and potash operations, cogeneration projects and plans related thereto and the availability of energy from renewable sources; Nutrien's pursuit of opportunities relating to its blue/low-carbon ammonia and other short-term opportunities for reducing GHG emissions associated with ammonia production; the implementation of our Carbon Program and the benefits to Nutrien and growers; Nutrien's near-term focus on economically maximizing CO₂ capture and sequestration utilizing existing infrastructure; our commitment to leverage partnerships and investments

Additional Content

expenditures; and expectations regarding our safety initiatives, including the future reporting of results and performance in connection therewith. These forward-looking statements are subject to a number of assumptions, risks and uncertainties, many of which are beyond our control, which could cause actual results to differ materially from such forward-looking statements. As such, undue reliance should not be placed on these forward-looking statements.

All of the forward-looking statements are qualified by the assumptions that are stated or inherent in such forward-looking statements, including the assumptions referred to below and elsewhere in this document. Although we believe that these assumptions are reasonable, having regard to its experience and its perception of historical trends, this list is not exhaustive of the factors that may affect any of the forward-looking statements and the reader should not place an undue reliance on these assumptions and such forward-looking statements. Current conditions, economic and otherwise, render assumptions, although reasonable when made, subject to greater uncertainty. In respect of Nutrien's 2030 GHG emissions reduction commitment, we have made assumptions with respect to, among other things: that such target is achievable by deploying capital into N₂O abatement at our nitric acid production facilities, energy efficiency improvements, carbon capture, utilization and storage, the use of natural gas to generate electricity and waste heat recovery; our ability to successfully deploy capital and pursue other operational measures, including the successful application to its current and future operations of existing and new technologies; the successful implementation by Nutrien of proposed or potential plans to reduce GHG emissions; projected capital investment levels, the flexibility of Nutrien's capital spending plans and the associated source of funding; and our ability to otherwise implement all technology necessary to achieve our 2030 GHG emissions reduction commitment, the performance of technology and associated expected future results. The additional key assumptions that have been made include, among other things, assumptions with respect to our ability to successfully complete, integrate and realize the anticipated benefits of our already completed and future acquisitions and divestitures; that future business, regulatory and industry conditions will be within the parameters expected by us; the receipt, in a timely manner, of regulatory and third-party approvals; assumptions with respect to global economic conditions and the accuracy of our market outlook expectations for 2021 and in the future; our expectations regarding the impacts, direct and indirect, of the COVID-19 pandemic; the adequacy of our cash generated from operations and our ability to access our credit facilities or capital markets for additional sources of financing; our ability to maintain investment-grade ratings and achieve our performance targets; ability to successfully implement new initiatives and programs; Nutrien's ability to successfully deploy capital and pursue other operational measures; the successful implementation by Nutrien of proposed or potential strategies and plans in respect thereof; projected capital investment levels, the flexibility of Nutrien's capital spending plans and the associated source of funding; and the development and performance of technology and technological innovations and the future use and development of technology and associated expected future results. Additional key assumptions relating to the operation of Nutrien's business as currently planned and the ability to achieve its business objectives as detailed from time to time in Nutrien reports, including its 2020 annual report dated February 18, 2021 and its annual information form dated February 18, 2021 for the year ended December 31, 2020, filed with the Canadian securities regulators and the Securities and Exchange Commission in the United States.

Events or circumstances that could cause actual results to differ materially from those in the forward-looking statements include, but are not limited to: (i) with respect to Nutrien meeting its 2030 climate and GHG emissions reduction commitment, including: our ability to deploy sufficient capital to fund the necessary expenditures to implement the necessary operational changes to achieve this commitment; our ability to implement requisite operational changes; our ability to implement some or all of the technology necessary to efficiently and effectively achieve expected future results, including in respect of such GHG emissions reduction commitment; the commercial viability and scalability of emission reduction strategies and related technology and products; the development and execution of implementing strategies to meet such GHG emissions reduction commitment; (ii) in respect of Nutrien's other 2030 commitments, including: our ability to deploy sufficient capital to fund the necessary expenditures to implement the necessary operational changes to achieve these commitments; our ability to implement requisite operational changes; our ability to implement some or all of the technology necessary to efficiently and effectively achieve expected future results; the commercial viability and scalability of required technology and products; development and growth of end market demand for sustainable products and solutions; the performance of third parties; the development and execution of implementing strategies to meet such commitments; and (iii) with respect to Nutrien's business generally and meeting its other targets, commitments, goals, strategy, and related milestones and schedules in this document, including: general global economic, market and business conditions; failure to complete announced and future acquisitions or divestitures at all or on the expected terms and within the expected timeline; the successful and timely implementation of capital projects; climate change and weather conditions; the supply and demand and price levels for our products; governmental and regulatory requirements and actions by governmental authorities, including changes in government policy (including tariffs, trade restrictions and climate change initiatives), government ownership requirements, changes in environmental, tax and other laws or regulations and the interpretation thereof; political risks, including civil unrest, actions by armed groups, or conflict and malicious acts including terrorism; the occurrence of a major environmental or safety incident; innovation and cybersecurity risks related to our systems; counterparty and sovereign risk; delays in completion of turnarounds at our major facilities; interruptions of or constraints in availability of key inputs, including natural gas and sulfur; any significant impairment of the carrying amount of certain assets; risks and uncertainties associated with obtaining regulatory, third-party and stakeholder approvals outside of Nutrien's control for its operations, projects, initiatives and activities and the satisfaction of any conditions to such approvals; the impact of technology and risks associated with developing and implementing new technologies; the accuracy of cost estimates; risks related to reputational loss; certain complications that may arise in our mining processes; the ability to attract, engage and retain skilled employees; the COVID-19 pandemic and its resulting effects; and other risk factors detailed from time to time in Nutrien's reports, including its 2020 annual report dated February 18, 2021 and its annual information form dated February 18, 2021 for the year ended December 31, 2020, filed with the Canadian securities regulators and the Securities and Exchange Commission in the United States.

The forward-looking statements in this document are made as of the date hereof and Nutrien disclaims any intention or obligation to update or revise any forward-looking statements in this document as a result of new information or future events, except as may be required under applicable Canadian securities legislation or applicable US federal securities laws.

Nutrien

We welcome and value your feedback on this report and all of our sustainability and ESG initiatives.

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