

# ESG at Brazil Potash

2022



# Brazil Potash embraces ESG.

Brazil's agriculture sector currently relies on imports for 95% of its potash supply, which is a key nutrient to increase crop yields. Relying on a foreign supply chain for potash exposes Brazil to food security challenges, and increases its carbon footprint.

## Our purpose

Sustainably and locally produce potash (a critical plant nutrient) in Brazil, and contribute to the achievement of the UN Sustainable Development Goals.

## ESG mission

We have worked with a reputable advisor to conduct an Environmental, Social and Governance (ESG) materiality assessment and develop an ESG strategy, and we are working toward obtaining an ESG rating.

## Our ambition

To help Brazil reduce its reliance on potash imports, reduce its carbon footprint, and improve the social and economic outcomes for the communities in which we operate.

## Support efforts

We are involved in numerous efforts to support the wellbeing of the communities in which we operate:

- Provision of clean drinking water.
- Continuous environmental monitoring.
- Planting trees on deforested land.
- Vaccination support and food supply.
- Wi-Fi connectivity.
- Educating children on how to grow food and the use of potash to increase the quality and quantity grown.
- Programs to support potash affordability.

# 79%

lower carbon intensity for production, than that of imports.

# 186K

tonnes of CO<sub>2</sub>e will be avoided per operating year by reducing travel related to imports.

# 200K

people will be brought onto clean energy sources, which will avoid 21 thousand tonnes of CO<sub>2</sub>e per year.

# 20%

female representation on the Board of Directors.



## Contents

<b>Introduction</b>	<b>4</b>
<b>Our ESG Ambition</b>	<b>6</b>
Sustainability Stewards	8
Impact-Driven Organization	15

Brazil is an agricultural powerhouse with objectives to both reduce greenhouse gas emissions and improve the security of fertilizer supplies.



Today, Brazil is the second largest consumer of potash in the world, and its agriculture sector relies on imports for 95% of its potash supply.

The import and transportation of this vital agricultural nutrient results in increased emissions in Brazil and exposes Brazilian farmers to both price and supply fluctuations.

Brazil is the world's largest exporter of soybean, sugarcane, beef and poultry. Countries across the globe rely on Brazilian exports to feed their populations, making Brazil a lynchpin in the global food system.

# Brazil Potash has an opportunity to support Brazil in its decarbonization efforts.

As a local potash supplier with ESG as a core component of our business, we provide a sustainable, responsible and secure source of potash to Brazilian farmers.

**95%**

of Brazil's potash supply is currently imported.

**43%**

Brazil aims to reduce its emissions by 43% from 2005 levels by 2030.

**1.06M tonnes**

of CO<sub>2</sub>e would be avoided by displacing 2.16 million tonnes of imported potash.

# Our ESG Ambition

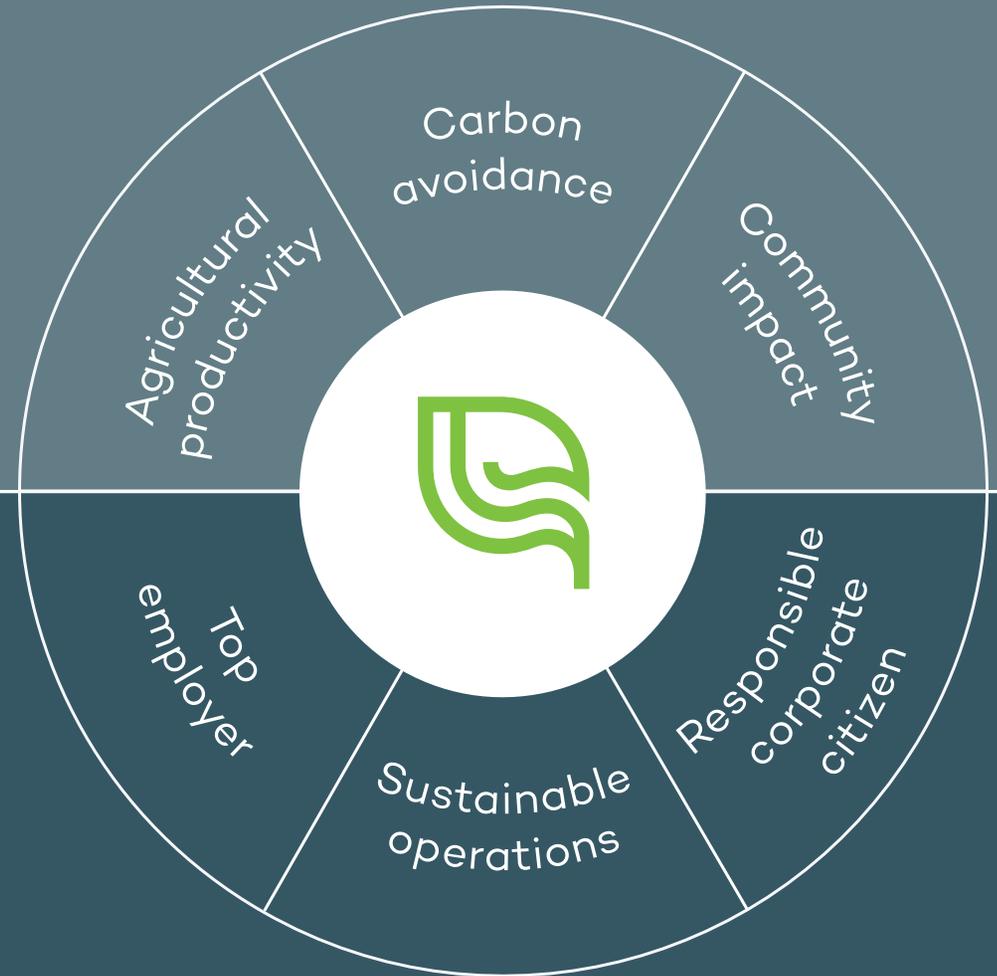
To help Brazil reduce its reliance on potash imports, reduce its carbon footprint, and improve the social and economic outcomes for the communities in which we operate.

## What: Sustainability Stewards

We strive to improve the social, economic and environmental outcomes for the communities and regions in which we operate.

## How: Impact-Driven Organization

We embed ESG in our purpose, culture and behaviours with a stakeholder-driven approach to value creation.





# Sustainability Stewards

Sustainable stewardship means reducing our environmental footprint where possible, and providing sustainable alternatives to existing product markets.

Our greatest opportunity for sustainable stewardship is to make a positive impact on people and the environment by supplying potash locally, creating positive community impact, and contributing to agricultural productivity.





**We strive to improve the social, economic and environmental outcomes for the communities and regions in which we operate.**

**20K**

trees planted to date by Brazil Potash.

**14**

ESG partnerships with academic organizations and NGOs.

**21K tonnes**

of CO<sub>2</sub>e will be avoided per year by bringing 200 thousand people in local communities onto a low-carbon grid.



## We have already enhanced thousands of lives in the communities in which we operate.

### Environmental:

- In 2021, Brazil Potash conducted environmental monitoring on 3,500 hectares of land in the area of its Autazes Potash Project with the intention to preserve remaining forests, monitor underground and surface water resources, and preserve historical heritage.
- We have also established an environment for the production of seedlings in the Urucurituba Village (future port location) to reforest its properties and also donate trees to the community. Through this initiative, we planted over 20,000 trees.

### Social:

- During the pandemic, we supported the Autazes Municipality to vaccinate over 9,000 people living in remote regions by providing logistical support (such as transportation) as well as an educational campaign.
- In 2021, we distributed over 2,300 food and hygienic baskets to socially vulnerable families in Autazes and Careiro da Varzea, with approximately 9,000 beneficiaries.
- In the communities in which we operate, we donated food and support for school activities to 170 underprivileged children and their families.
- We have partnered with 14 different institutions and a group of universities to strengthen our ESG impact, in addition to including our own institutional programs.
- We will implement more than 30 programs to address the environmental, social and economic elements identified in the studies conducted over the last five years, in support of the UN Sustainable Development Goals.





 COMMUNITY IMPACT

**We will continue to support our communities in meaningful ways with initiatives that are focused on having an impact.**

Our mine will be located in the Autazes region and once operational, will provide local communities with cleaner and more cost effective energy sources.

The future 230kV transmission line will allow communities to replace its three MW electricity demand from diesel power generators resulting in **approximately 21,000 t CO<sub>2</sub>e/yr avoided** per typical operating year.

By connecting communities to the electric grid, we will support Brazil in achieving its decarbonization efforts by providing an alternative to diesel power generator combustion.

The local communities will benefit from accessing Brazil's electricity grid, which has one of the world's cleanest electricity grids, with 85% derived from renewable energy sources— predominately from hydro, with increasing contribution from solar, wind and biomass.

**85%**

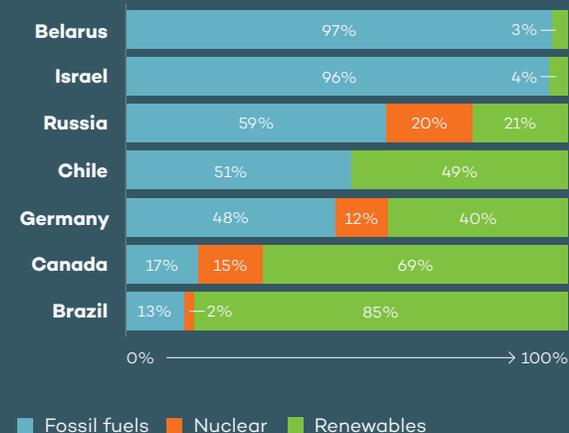
CARBON AVOIDANCE

Our projections indicate that our potash will be produced with a lower emission-intensity factor that of Brazil's import countries.

Potash production in Brazil is better for the global environment as the carbon intensity in Brazil is lower than that of other potash producing countries.

- Resulting from a lack of domestic potash production, **Brazil currently imports the majority of its potash from Saskatchewan, Canada.**
- The production and processing of potash requires ample electricity and **in Saskatchewan, the electricity grid is comprised of 81% fossil fuels.**
- Comparatively, **Brazil's electricity grid is comprised of approximately 85% renewable energy** (66% hydroelectricity, 11% wind and solar, 8% biomass).
- In producing 2.16 million tonnes of potash per year, **a company based in Saskatchewan would generate 1.331 million tonnes of CO<sub>2</sub>e, while a company based in Brazil would only generate 271 thousand tonnes of CO<sub>2</sub>e.**
- The difference in grid power carbon intensities yields **1.06 million tonnes CO<sub>2</sub>e of avoided emissions for Brazil when displacing 2.16 million tonnes of imports.**

Electricity from Fossil Fuels, Nuclear and Renewables, 2020



Brazil's average CO<sub>2</sub>e emission factor is 79% lower than that of Saskatchewan, Canada, resulting in significant carbon avoidance.

79%

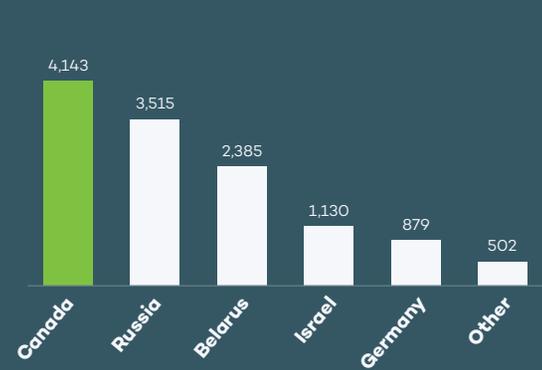
CARBON AVOIDANCE

Having the lowest possible carbon footprint is a competitive advantage in a rapidly decarbonizing world.

We will support Brazil in achieving its decarbonization efforts by reducing emissions associated with importing potash related to travel.

- Brazil historically has imported potash from Canada, Russia, Belarus, Israel and Germany.
- By 2030, Brazil aims to reduce emissions by 43% from 2005 levels.
- GHG emissions from the transport sector are a major contributor to climate change comprising approximately one quarter of global energy-related GHG emissions.
- The Autazes Potash Mine offers an opportunity to mitigate GHG emissions and **reduce the dependency on potash imports by approximately 20%** by supplying potash locally and reliably to the Northern Brazilian farmers via barge convoys, which is a relatively lower carbon transport mode.

Brazil's Imports of Potash by Country, 2021 (thousand tonnes)\*



\* Source: CRU, Potassium Chloride Market Outlook - February 2022.

Countries that Brazil Imports Potash from



 AGRICULTURAL PRODUCTIVITY

## Supporting Brazilian farmers is a priority for us; allowing Brazil to remain a critical component of the global food supply chain, with a lower environmental footprint.

In supplying local potash, Brazil Potash will contribute to agricultural productivity, a reduction in land use change and deforestation, and global food security.

- The Amazon forest and rivers host an extraordinary variety of species, some endemic, others endangered, and many of which are still unknown. Amazon biodiversity also plays a critical role as part of global systems, **influencing the global carbon cycle and climate change**. Tropical climates such as the Amazon support the sequestration of atmospheric CO<sub>2</sub>e through vegetation, documented at an average of **50 pounds of CO<sub>2</sub>e/tree per year**.
- Unfortunately, the Amazon faces heavy deforestation due to the increasing need for land for cattle ranching and farming in northern Brazil. Thus, **arable land is a scarce resource that needs to be used in the most appropriate way to ensure food security without further land use change**.
- Fertilizers **increase agricultural productivity and stimulate CO<sub>2</sub>e uptake by the crop**. They increase yield and reduce the necessity to cultivate new land. However, fertilizer is quite expensive, especially when used in large amounts.
- With a local source of fertilizer, Brazilian farmers have **access to more affordable fertilizer**. This fertilizer will also help increase their yield, which will in turn help avoid land use change and deforestation of the Amazon.



Brazil is responsible for 18% of global fertilizer consumption and is the world's largest fertilizer importer,

ahead of the United States and China.

In the last 40 years, the Brazilian Amazon has lost more than 18% of its rainforest.

We aim to help mitigate this.



# Impact-Driven Organization

Being an impact-driven organization means integrating ESG into the core of our business.



**We embed ESG in our purpose, culture and behaviours with a stakeholder-driven approach to value creation.**

**12**

ESG material topics that drive performance.

**20%**

female representation on the Board of Directors.

**Integrated**

ESG performance into compensation structure.

We remain aligned on the ESG matters that are most important to our stakeholders, and support those needs through purposeful actions.

To that end, Brazil Potash has two main objectives:

**1 Embed ESG in our purpose, culture and behaviors**

- As we grow in size and move closer towards mine operations, we will progress our ESG maturity to arrive at a place where ESG is integrated throughout the organization.
- Our ESG practices are established and detailed steps are in place to continue our advancement.

**2 Advance stakeholder-driven approach to value creation**

- As we develop and refine our ESG strategy, we will remain aligned to the ESG priorities of our most critical stakeholders by routinely consulting with them.
- We conducted an internal ESG materiality assessment to understand the ESG topics that are most material to our business and our stakeholders.



We believe that by combining good practices, high technology, respect for the environment and dialogue with society in a responsible, transparent and participatory manner, we will contribute to the environmental and socio-economic progress of Autazes, Amazonas state, Amazon region and Brazil.



TOP EMPLOYER • SUSTAINABLE OPERATIONS • RESPONSIBLE CORPORATE CITIZEN

We have taken measured steps to become an impact-driven organization, including having completed an ESG materiality assessment.

Brazil Potash recently conducted an ESG materiality assessment and identified 12 material ESG topics. Within the 12 topics, 3 powerful themes emerged that will be our focus in the coming years.

Top Employer	Sustainable Operations	Responsible Corporate Citizen
Diversity, Equity and Inclusion	Tailings and Waste Management	Regulatory Compliance
Community Impact, Local Employment and Procurement	Deforestation and Biodiversity	Engagement with Indigenous Peoples
Health and Safety	Climate-Related Risks and Opportunities	Corporate Governance and Ethics
Human Rights and Labour Relations	Water Stewardship	Bribery and Corruption

**Brazil Potash has identified action items to integrate ESG into all aspects of its business model, and increase its performance related to its 12 ESG material topics.**

## We have charted a path to become an impact-driven organization beginning now, through to mine operations.

These action items intend to position us competitively from an ESG perspective, and support us in our future ESG journey. Becoming an impact-driven organization is an ongoing process that will be fully integrated into the way we work. A full five-year roadmap has been created to align our team on the next steps in this journey and below are the key activities that we will focus on in the coming months.

### What we're doing now:

- Preparing for an ESG rating.
- Developing commitments including net zero.
- Setting targets for high-priority ESG material topics.
- Setting up a governance structure to enable board oversight.
- Furthering our focus on engagement with our Indigenous stakeholders and communities.

### We plan to accomplish the following within five years (before operations):

- Clearly articulate an ESG strategy that is tied to our corporate strategy and integrated in financial reporting metrics.
- Obtain an ESG rating.
- Set targets for all remaining material topics, including GHG emission reduction targets.
- Develop policies, processes and a robust governance structure, and tie compensation to ESG performance.
- Work towards obtaining certifications including HAZWOPER, ISO 14001 and OHSAS 18001.
- Demonstrate clear progress toward our clean energy and GHG reduction targets.





**Brazil Potash**  
invest@brazilpotash.com  
+1 (647) 697-3937