

# REPORT OF PHOSAGRO PJSC ON CLIMATE ACTIVITIES IN ACCORDANCE WITH CDP QUESTIONNAIRE

## C0. Introduction

### C0.1 Give a general description and introduction to your organization

PhosAgro is a vertically integrated mineral fertilizer producer based in Russia. We are one of the world's most efficient producers of phosphate-based fertilizers and one of the only companies to produce high-grade phosphate rock with a P2O5 content of 39% or higher. The main activity is the production of phosphate-based fertilizers, high-grade phosphate raw materials - apatite concentrate, as well as feed phosphates, nitrogen fertilizers, and ammonia.

All mining and production activities are carried out in the Russian Federation at the company's Kirovsk, Cherepovets, Balakovo, and Volkhov facilities. The company has its own resource base and carries out a full cycle of mineral fertilizer production - from the extraction and processing of apatite-nepheline ore to the production of mineral fertilizers, its own research and development department, which ensures maximum quality control of products. The group is the largest European producer of phosphate fertilizers, the world's largest producer of high-grade phosphoric raw materials and the second in the world (excluding China) manufacturer of ammophos and diammonium phosphate (according to Fertecon), the leading European producer of monophosphate (MCP), and also the only manufacturer of nepheline concentrate in Russia. In 2018, PhosAgro became the largest producer of apatite concentrate globally and the second-largest producer of complex mineral fertilizers (NPK) in Europe. The company employs almost 11 thousand people.

PhosAgro delivers fertilizers to more than 100 countries in Asia, Europe, Africa, South, and North America, contributing to higher yields of cultivated crops. The key consumers are producers of agricultural products. More than 70% of produced fertilizers are exported, and the company maintains a network of trading offices in 10 countries, including priority markets in Latin America and Europe. For the purposes of reporting GFIG emissions data, activities outside of the Russian Federation are not considered material,

PhosAgro shares are traded on the Moscow Stock Exchange and the Global Depository, Receipts for shares traded on the London Stock Exchange (ticker: PHOR). Since 1 June 2016, the Company's GDRs have been included in the MSCI indices of Russia and MSCI Emerging Markets. A detailed description of the Company is available at <https://www.phosagro.ru>.

## C0.2 State the start and end date of the year for which you are reporting data

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
	January 1 2019	December 31 2019	No	<Not Applicable>

## C0.3 Select the countries/regions for which you will be supplying data

Russian Federation.

## C0.4 Select the currency used for all financial information disclosed throughout your response

USD.

## C0.5 Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory

Financial control.

## C-CH0.7 Which part of the chemicals value chain does your organization operate in?

Row 1

Bulk organic chemicals

Please select

Bulk inorganic chemicals

Fertilizers Nitric acid

Other chemicals

Please select

## C1. Governance

### C1.1 Is there board-level oversight of climate-related issues within your organization?

Yes.

### C1.1a Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues

Position of individual(s)	Please explain
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Director on board	The responsibility for monitoring and addressing issues related to GHG emissions and climate change resides with the Environmental, Health, and Safety Committee headed by a member of the Board of Directors, Executive Director of JSC PhosAgro
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**C1.1b Provide further details on the board's oversight of climate-related issues**

<b>Frequency with which climate-related issues are a scheduled agenda item</b>	<b>Governance mechanisms into which climate-related issues are integrated</b>	<b>Please explain</b>
Scheduled - some meetings	Reviewing and guiding major plans of action Overseeing major capital expenditures, acquisitions and	Sustainable development and environmental protection, including climate-related issues are strategic priorities for the company and require effective application of our resources. PhosAgro is in the process of integrating the UN Sustainable Development Goals into the company's strategy and operations. Currently, special attention is paid to issues related to the control of greenhouse gas emissions and energy efficiency. The Charter of the Environmental, Health and Safety Committee includes such functions as the assessment of the environmental, social, technological, and industrial impacts of our production activities, promoting efficient use of natural resources and energy efficiency, industrial safety and accident prevention, as well as regulatory compliance. The Chair of the Committee on a quarterly basis informs the Board of Directors on the essential aspects of the activities of PhosAgro regarding climate change issues, the activities undertaken by the Company and its subsidiaries in this area and on the results of Committee's activities.

**C1.2 Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues**

<b>Name of the position(s) and/or committee(s)</b>	<b>Responsibility</b>	<b>Frequency of reporting to the board on climate-related issues</b>
Other committee, please specify (Environmental, Health, and Safety Committee)	Managing climate-related risks and opportunities	Quarterly

**C 1.2a Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals)**

The responsibility for monitoring and resolving issues related to climate change was assigned to the Environmental, Health, and Safety Committee headed by a member of the Board of Directors and Executive Director of JSC PhosAgro. Other Committee members include the company’s Chief Executive Officer and an Independent Director. The Committee includes PhosAgro’s senior leadership, including Directors with background in strategy, finance, and audit, as well as chemistry and mining engineering, in addition to a deep understanding of the broad environmental agenda. This means that the Committee has the ability to facilitate making and implementing decisions that impact the entire company. One of the Committee members joined in 2018 bringing to the table technical expertise and experience necessary for assessing the effectiveness of current and emerging environmental technologies.

The Committee's climate-related functions include:

- Monitoring GHG emissions
- Developing and implementing projects to reduce GHG emissions (such as energy efficiency initiatives),

The work plan of the Committee for each fiscal year (from July to the end of June of the following year) is approved by the Board of Directors in May, after its consideration and approval by the Committee members.

The organization is in the process of integrating strategy around the goals of sustainable development, which has resulted in the broader climate-related agenda being brought to the forefront. PhosAgro has a long history of environmental stewardship, and the new focus on climate-related issues is being implemented with the support of the existing structures that have contributed to our success over the years. PhosAgro has a robust risk management process, which now incorporates climate risks. At the beginning of 2019, PhosAgro established the Committee for Sustainable Development. There are plans to transfer some climate-related issues to this committee.

**C1.3 Do you provide incentives for the management of climate-related issues, including the attainment of targets?**

	Provide incentives for the management of climate-related issues	Comment
Row	No, not currently but we plan to introduce them in the next two years	PhosAgro's climate strategy includes work to incorporate climate metrics into employee compensation mechanisms, primarily by

		linking the results to material compensation (part of the salary or bonus may depend on the KPI card performance).
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## C2. Risks and opportunities

### C2.1 Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

#### C2.1a How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	3	
Medium-term	3	10	
Long-term	10	30	

#### C2.1b How does your organization define substantive financial or strategic impact on your business?

PhosAgro's business impact criteria are defined and normatively set out in the IAP Regulation 102-2018 (dated 25.12.2018). According to this document, the most significant impact is described as follows: (1) financial - loss of more than 1% of annual revenue; (2) reputational - loss of key customers, sharp decline in the company's attractiveness in the labor market; (3) production - long production halts (more than 10 days), the need to replace and restore key production assets; (4) compliance with the law - prohibition of certain activities, loss / forced liquidation of key assets, production blockages in accordance with the decisions of regulatory authorities; (5) occupational health and safety and social climate - human health.

### C2.2 Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

#### **Value chain stage(s) covered**

Direct operations

Upstream

Downstream

#### **Risk management process**

Integrated into multi-disciplinary company-wide risk management process

#### **Frequency of assessment**

More than once a year

### ***Time horizon(s) covered***

Short-term

Medium-term

Long-term

### ***Description of process***

The company has established a Climate Change Risk Management System (hereinafter - the CRM System) as an integral part of the overall risk management system (RMS). The RMS, in all its elements, is embedded in the current institutional and organizational setup of PJSC "PhosAgro". The RMS was developed in accordance with the Regulations on risk management of JSC "Apatit" LDP 102-2018 (approved on 25.12.2018) and other normative and regulatory documents of the company; it implements the provisions of ISO and Russian standards in this area. Functional responsibilities and authorities of bodies and people related to the management of the climate-related risks, within the general RMS, are set out in the relevant organizational and administrative documents of the company. The company has a formalized process for identification, assessment, monitoring, and management of climate risks and opportunities as part of the overall risk and opportunity management process. Description of the process of determining what risks or opportunities may have a significant financial or strategic impact: The designated risk owners are responsible for identifying risks and opportunities that have significant financial or strategic influence. These risks are manifested in the violation of production and management processes of the company and thus, reduce the efficiency of its activities and long-term sustainability. The owners of climate risks perform quarterly monitoring and annual reporting on climate risk management. The Risk Management and Internal Control Directorate of PJSC PhosAgro perform some of the following tasks: general coordination of the climate risk management process, control over the implementation of measures, and preparation of consolidated reports for the company's Board of Directors and executive bodies. Making decisions on mitigating the transfer, acceptance or control of the identified climate risks and on the use of climate-related opportunities: PhosAgro's climate risk register has been compiled; complete risk statements were developed for key climate risks. These documents define the measures needed to manage and respond to climate risks. This work was performed by climate risk owners with the active participation of subject matter experts, using polling, extended (in-depth) interviews, structured interviews, the Delphi method, root-cause analysis, and other methodologies. PhosAgro climate risk management strategy is aimed at integrating risks and opportunities generated by climate change factors (physical and transitional) into the overall RMS. The strategy combines regulatory legal, organizational, and administrative measures, as well as a list of climate risk management activities in the overall RMS of the company (including risk transfer, risk management, and risk

response), Application of risk management process to physical risks and opportunities: The climate risk management system has been developed taking into account specific features of management and production processes of the company, which owns long-lived fixed assets, extensive supply and distribution networks, as well as critically depends on natural resources and fuels the need for long-term investments. Specific physical factors of climate change (chronic and acute) have been identified that form the physical risks and opportunities of PhosAgro PJSC. These risks and opportunities arise primarily in the company's production processes, and are realized primarily in the company's production units. Physical risks and opportunities are formulated in the following accepted categories: operational (design, business processes, environment, health, and safety), production (technology, equipment, energy complex). Application of the process to transient risks and opportunities: Specific transitional factors of climate change have been identified (as a set of regulatory measures to limit negative anthropogenic impacts on climate - government regulation, pricing policy, tariff policy, investment and financial mechanisms, public pressure, etc.) which form the transitional risks and opportunities for PhosAgro PJSC. These risks and opportunities are mainly realized in management processes, found in the sphere of competence of the company's structural units. Transition risks and opportunities are formulated in the following accepted categories: strategic (human resources and social), regulatory (compliance with regulatory requirements), financial (interest, credit, sales, commodities), and reputational. PhosAgro's Climate Strategy (1) defines forecast parameters for expected trends in climatic risks and opportunities for PhosAgro under selected climatic scenarios (expected warming at 2 degrees C and expected warming at 4 degrees C) for the short, medium, and long term; (2) defines a set of strategic measures to minimize climate risks and maximize opportunities offered by climate change (human resources policy, technology, business processes, financial sector, reputation).

**C2.2a Which risk types are considered in your organization's climate-related risk assessments?**

	<b>Relevance &amp; inclusion</b>	<b>Please explain</b>
Current regulation	Relevant, sometimes included	PhosAgro is currently subject to the requirements of Russian legislation on greenhouse gas emissions. In accordance with these requirements, PhosAgro reports on GHG1 and GHG2 emissions to government agencies. However, new climate-related regulatory and financial mechanisms are expected to be introduced in the future. To the extent that the application of the existing regulations might adversely impact our operations in a material way, we continue to monitor the risk of regulatory changes. For example, to comply with the Federal energy efficiency legislation first adopted in 2009, we are implementing energy efficiency programs requiring significant investments and resulting in increased capital and operating costs in the short term.

	<b>Relevance &amp; inclusion</b>	<b>Please explain</b>
Emerging regulation	Relevant, always included	Currently, at the level of countries and international organizations, there are processes to strengthen climate requirements for manufacturers and suppliers of products that have detrimental climate impacts. Therefore, this risk is always included due to the significant impact of new climate regulations on the overall performance of the company. For example, the implementation of the European Green Deal will significantly increase the company's losses due to its non-compliance with regulatory requirements.
Technology	Relevant, always included	The risk is relevant and is always included due to a significant impact of the fact of compliance with low-carbon production requirements on the company's business reputation and financial stability. In particular, the Company plans to study the production of products with low CO2 emissions by introducing innovative technologies involved in the process of production and consumption (based on the carbonization processes).
Legal	Relevant, sometimes included	The risk is relevant and is included in cases where the consequences of climate change may lead to legal liability of the company. For example, the Company may be liable for violating contract terms for the supply of finished products due to failures in transportation and logistics caused by climate change.
Market	Relevant, always included	PhosAgro includes market risks as part of its ongoing risk assessment process by monitoring the risks of possible losses associated with adverse changes in market preference and prices for mineral fertilizers and other products. Climate change also has a significant impact on the markets of energy resources, equipment and materials for the Company's needs and on the markets of finished products of the company. Such impacts might cause, for example (1) increase in indirect (operating) costs due to an increase of energy prices and (2) decrease in liquidity of finished products characterized by high climate impact during production and consumption.
Reputation	Relevant, always included	The risk is relevant and always included because of the significant impact of information disclosure in the sphere of decarbonization of the company's activities on its reputation among investors, consumers, government, the public, and political circles. For example, a decrease in the Company's ESG ratings might negatively impact the Company's reputation and lead to reduced presence in the mineral fertilizer markets and financial losses due to the company's ineffective information policy on climate issues.
Acute physical	Relevant, always included	Acute physical risks are reflected in our ongoing risk assessments, including disruption of the production process, technical incidents resulting from extreme weather conditions and leading to increased downtime, disruption or equipment failure, potential accidents, decreases in production volumes, as well as potential increases in the rates of industrial injuries and occupational diseases. For example, the Company's transportation operations (including river and sea) can be disrupted in regions affected by acute climate factors (hurricanes, storms, floods, surge events, etc.).



	<b>Relevance &amp; inclusion</b>	<b>Please explain</b>
Chronic physical	Relevant, always included	The risk is relevant and always included due to the significant impact of chronic changes in climatic conditions on the processes of extraction and transportation of raw materials, and the production processes of the company. For example, increased precipitation, especially in the winter, increased intensity and duration of spring floods which caused disruptions in ore extraction and transportation, and increased the time of unscheduled equipment downtime (Kirov branch). Due to the increase of maximum temperatures in the warm season, the shortage of cooling capacity in the production of products becomes more acute (Balakovskiy branch, Cherepovetsky complex).

**C2.3 Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?**

Yes.

**C2.3a Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.**

**Identifier**

Risk 1

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Chronic physical

Rising mean temperatures

**Primary potential financial impact**

Increased direct costs

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

As a result of the process equipment overheating, the probability of production and shipment downtime to the customer increases,

**Time horizon**

Medium-term

**Likelihood**

Very likely

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure - minimum (currency)**

10000000

**Potential financial impact figure - maximum (currency)**

50000000

**Explanation of financial impact figure**

Accepted based on expected revenue loss due to 1 to 5 days of downtime of fertilizer production facilities during the year,

**Cost of response to risk**

29000000

**Description of response and explanation of cost calculation**

The cost of modernization and construction of new cooling facilities at the Balakovo, Cherepovets and Volkhov production facilities for seven years (total cost USD 202,3 million).

**Comment****Identifier**

Risk 2

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Chronic physical

Changes in precipitation patterns and extreme variability in weather patterns

**Primary potential financial impact**

Increased direct costs

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

As climate change intensifies in the region where the Kirov branch is located, there is an increase in precipitation, especially during the winter, where the level of flood water increases and more frequent temperature transitions over zero are observed. In this connection, the company expects an increase in the frequency of violations of mine process equipment, ore transportation and acceptance equipment for beneficiation. As a result, the company expects to disrupt the delivery schedule of raw materials for use in fertilizer production at the Cherepovets, Volkhov and Balakovo branches

**Time horizon**

Short-term

**Likelihood**

Virtually certain

**Magnitude of impact**

High

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure - minimum (currency)**

10000000

**Potential financial impact figure - maximum (currency)**

50000000

**Explanation of financial impact figure**

Accepted on the basis of expected revenue loss due to idle production and processing of apatite-nepheline ore for supply to fertilizer production for 1 to 5 days during the year,

**Cost of response to risk**

17000000

**Description of response and explanation of cost calculation**

Accepted for annual implementation costs (over three years): (1) preventive and additional measures for ore shipment processes; (2) measures to increase the capacity throughout of storm sewerage and drainage of groundwater from the territory of the mines.

**Comment****Identifier**

Risk 3

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Emerging regulation

Other, please specify (Increased cost of energy)

**Primary potential financial impact**

Increased direct costs

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

The company's costs are expected to increase due to rising energy prices and the need to change suppliers due to the introduction of restrictive and regulatory political and economic measures in the climatic sphere aimed at stimulating energy savings, ultimately leading to the transition of "clean" and renewable energy sources,

**Time horizon**

Medium-term

**Likelihood**

Virtually certain

**Magnitude of impact**

High

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure - minimum (currency)**

25500000

**Potential financial impact figure - maximum (currency)**

76500000

**Explanation of financial impact figure**

The financial impact was determined based on the assumption of a 5 to 15% growth in energy prices.

**Cost of response to risk**

5500000

**Description of response and explanation of cost calculation**

The cost of response is based on the expected cost of the response: (1) introduction of climate parameters into the procedures for competitive selection of energy suppliers to meet the company's needs, (2) development (pre-project) of opportunities for transition to "low-carbon" energy consumption, (3) stimulation of innovative developments in the field of energy, (4) participation in professional and business platforms on topical energy-saving issues

**Comment**

**Identifier**

Risk 4

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Chronic physical

Rising mean temperatures

**Primary potential financial impact**

Increased insurance claims liability

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

Ammonium nitrate storage sites are expected to become more explosive (at the company's own warehouses and at transshipment sites when delivered to consumers) as a result of temperature and humidity rises above regulatory parameters

**Time horizon**

Medium-term

**Likelihood**

About as likely as not

**Magnitude of impact**

High

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure - minimum (currency)**

26790000

**Potential financial impact figure - maximum (currency)**

40190000

**Explanation of financial impact figure**

Accepted based on expected losses from risk realization (such as the increase in the volume and magnitude of insurance liability claims)

**Cost of response to risk**

1500000

**Description of response and explanation of cost calculation**

Accepted at the required cost of: (1) Setting additional (climatic) parameters of control over the internal and external environment of ammonium nitrate warehouses, (2) Implementation of a system of measures to ensure compliance with the ammonium nitrate storage regime

**Comment**

**Identifier**

Risk 5

**Where in the value chain does the risk driver occur?**

Downstream

**Risk type & Primary climate-related risk driver**

Market

Changing customer behavior

**Primary potential financial impact**

Increased credit risk

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

There may be an increase in the company's financial losses due to the unwillingness of its customers, commercial contractors and other counterparties to meet their financial obligations in connection with the company: (1) an increase in costs (for the purchase of energy resources, development and implementation of new technologies, etc.), (2) changes in market conditions and a decrease in revenues, (3) increased impact of physical climatic factors on production processes in the form of acute manifestations (more frequent hurricanes, tsunamis, etc.), as well as chronic changes (increase in average temperature, humidity, etc.),

**Time horizon**

Short-term

**Likelihood**

Virtually certain

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure - minimum (currency)**

16750000

**Potential financial impact figure - maximum (currency)**

33480000

**Explanation of financial impact figure**

Accepted based on the expected loss of revenue as a result of risk realization

**Cost of response to risk**

1800000

**Description of response and explanation of cost calculation**

Based on the following costs: (1) development and implementation of criteria for attributing accounts receivable to the facts caused by climatic changes (transitional and physical), (2) development of strategy and tactics for work with contractors whose financial obligations are exposed to high climatic risks, including the adjustment of payment terms, provision of bank guarantees, use of letters of credit and factoring, etc,

**Comment**

**Identifier**

Risk 6

**Where in the value chain does the risk driver occur?**

Upstream

**Risk type & Primary climate-related risk driver**

Market

Increased cost of raw materials

**Primary potential financial impact**

Increased indirect (operating) costs



## **Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

## **Company-specific description**

The company's costs are expected to increase due to rising energy prices and the need to change suppliers due to the introduction of restrictive and regulating political and economic measures in the climatic sphere aimed at stimulating energy saving by transitioning to "clean" and renewable energy sources

## **Time horizon**

Medium-term

## **Likelihood**

Virtually certain

## **Magnitude of impact**

Medium

## **Are you able to provide a potential financial impact figure?**

Yes, an estimated range

## **Potential financial impact figure (currency)**

<Not Applicable>

## **Potential financial impact figure - minimum (currency)**

23440000

## **Potential financial impact figure - maximum (currency)**

33480000

## **Explanation of financial impact figure**

Adopted on the basis of expected losses in case of risk realization in the range from 0,7 to 1,0% of the company's annual revenue,

## **Cost of response to risk**

1800000

## **Description of response and explanation of cost calculation**

Adopted based on the following costs: (1) development and implementation of criteria for attributing accounts receivable to the facts caused by climatic changes (transitional and

physical), (2) development of strategy and tactics for work with contractors whose financial obligations are exposed to high climatic risks, including the adjustment of payment terms, provision of bank guarantees, use of letters of credit and factoring, etc.

### **Comment**

**C2.4 Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes.

**C2.4a Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business**

### **Identifier**

Opp1

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Resilience

**Primary climate-related opportunity driver**

Other, please specify (Increase in financial stability and strengthening of the Company's business reputation as a result of improvement in the quality of the human capital)

**Primary potential financial impact**

Reduced direct costs

**Company-specific description**

The company aims to implement the climate factor in its human resources and social policy as the most important driver of human capital improvement (including climatically and environmentally responsible behavior, high professionalism, readiness for innovative solutions),

**Time horizon**

Medium-term

**Likelihood**

About as likely as not

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure - minimum (currency)**

33400000

**Potential financial impact figure - maximum (currency)**

66800000

**Explanation of financial impact figure**

The expected financial impact, due to the methodological complexity of determining the share of human capital in the formation of the total capital of sustainability, is taken as the amount of expenses for the maintenance of human capital, with an average value of 5% to 10% of the company's net profit,

**Cost to realize opportunity**

1500000

**Strategy to realize opportunity and explanation of cost calculation**

The cost of realizing the opportunity is based on the amount of expected costs per: (1) introduction of climatic (and environmental) criteria into personnel selection procedures (recruitment, certification, etc.), (2) inclusion of climatic issues into professional development and retraining programs, (3) advanced training of managerial personnel in climatic sphere on the basis of international specialized structures, (4) inclusion of climatic issues into the curriculum of Cherepovets Industrial College

**Comment**

This opportunity is considered by the company as a necessary condition for improving its human capital, which is the most important factor determining PhosAgro's sustainability in the long term

**Identifier**

Opp2

**Where in the value chain does the opportunity occur?**

Downstream

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

**Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

**Company-specific description**

The company plans to expand its product range based on decarbonization processes (expansion of carbamide production, mastering melamine and dry ice production, etc.). It is expected that such diversification will not only increase revenues but will also allow the company to reduce its share in total greenhouse gas emissions, including through rigid binding of CO<sub>2</sub> in melamine (a substitute for phenol-formaldehyde resins in plywood production)

**Time horizon**

Medium-term

**Likelihood**

Likely

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure - minimum (currency)**

375660000

**Potential financial impact figure - maximum (currency)**

459140000

**Explanation of financial impact figure**

The potential financial impact has been determined based on the approximate proportion of the expected reduction in CO<sub>2</sub> emissions from the company's planned activities (approximately 1 million tonnes of CO<sub>2</sub>) in the total global CO<sub>2</sub> emissions (approximately

0,002%), The minimum value is based on the existing price of CO<sub>2</sub>, the maximum value is based on the projected price of CO<sub>2</sub> (at \$ 50 million / ton) in 7 years when it is planned to start production. Accepted on the expected effect of production and delivery to the market of decarbonization products (carbamide, dry ice, melamine),

### **Cost to realize opportunity**

57500000

### **Strategy to realize opportunity and explanation of cost calculation**

The potential financial impact has been determined based on the approximate proportion of the expected reduction in CO<sub>2</sub> emissions from the company's planned activities (approximately 1 million tonnes of CO<sub>2</sub>) in the total global CO<sub>2</sub> emissions (approximately 0,002%), The minimum value is based on the existing price of CO<sub>2</sub>, the maximum value is based on the projected price of CO<sub>2</sub> (at \$ 50 million / ton) in 7 years when it is planned to start production. Accepted on the expected effect of production and delivery to the market of de carbonization products (carbamide, dry ice, melamine).

### **Comment**

#### **Identifier**

Opp3

#### **Where in the value chain does the opportunity occur?**

Downstream

#### **Opportunity type**

Markets

#### **Primary climate-related opportunity driver**

Access to new markets

#### **Primary potential financial impact**

Increased revenues through access to new and emerging markets

#### **Company-specific description**

The company expects growth in demand for mineral fertilizers due to the increasing global population, as well as improved climatic conditions for crop production in Russia and other regions of the world, which are not strongly affected by predicted negative climatic factors (floods, drought, tsunamis, storms, hurricanes, etc.). Expansion of the circle of consumers of the company's products due to changes in preferences for goods characterized by

positive climatic parameters when using them (alcohol fuel, cultivated types of wood, etc.).

**Time horizon**

Short-term

**Likelihood**

Likely

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure - minimum (currency)**

33500000

**Potential financial impact figure - maximum (currency)**

167700000

**Explanation of financial impact figure**

The financial impact is based on a minimum of 1 to 5% of the company's annual revenue increase from expanding the geography of product consumption

**Cost to realize opportunity**

2500000

**Strategy to realize opportunity and explanation of cost calculation**

The cost of sales is determined by the costs for forecasting and monitoring the condition and geographic distribution of crop production and other activities related to the consumption of the company's products, under the influence of climatic factors, but primarily the physical factors.

**Comment**

The company is aware of the high potential for action in this area, which should be correlated with global and regional projected demographic and climatic characteristics

**Identifier**

Opp4

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Resource efficiency

**Primary climate-related opportunity driver**

Use of more efficient modes of transport

**Primary potential financial impact**

Reduced indirect (operating) costs

**Company-specific description**

Increase in efficiency of operational processes as a result of activation of cargo shipping in the Volga basin, which connects the company's production branches with the Caspian, Black Sea, Baltic, and other sea routes, due to an increase in average air temperatures and shortening of the freezing period. This significantly expands the transportation capabilities of the company, including transportation of finished products to customers, as well as delivery of equipment materials, etc, from suppliers.

**Time horizon**

Medium-term

**Likelihood**

Likely

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure - minimum (currency)**

16750000

**Potential financial impact figure - maximum (currency)**

33480000

**Explanation of financial impact figure**

Adopted based on expected revenues from this opportunity, in the range from 0,5% to 1% of the company's annual revenue

**Cost to realize opportunity**

2500000

**Strategy to realize opportunity and explanation of cost calculation**

The situation in the Russian Federation, which is an important supplier to global food markets, is very promising. The company is actively testing fertilizer efficiency and innovative crop production methods, taking into account current and future climate changes.

**Comment**

**C3. Business Strategy**

**(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?**

Yes, and we have developed a low-carbon transition plan

**(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?**

Yes, qualitative and quantitative

**(C3.1b) Provide details of your organization's use of climate-related scenario analysis.**

<b>Climate-related scenarios and models applied</b>	<b>Details</b>
2DS	Scenario definition: Input data was based on indicators of greenhouse gas emissions, prices for fossil fuels and electricity, and the use of renewable energy. Aspects of policy measures to reduce greenhouse gas emissions and reduce climate warming were considered. Assumptions used included IEA ETP 2017, IEA WEO 2019, and The Future of Petrochemicals towards More Sustainable Plastics and Fertilizers, also by IEA (for industry-specific assumptions relevant to fertilizers production). The scenario was defined based on the expert evaluation and projections of input parameters' influence on risks and opportunities, which were further quantified according to the Company's risk assessment methodology. The following key areas of PhosAgro's activities (and corresponding business processes) were considered as part of the climatic scenario analysis: strategic (human resources and social), operational (design, business processes,



	<p>environment, health and safety), production (technology, equipment, energy complex), regulatory (compliance with regulatory requirements), financial (interest, credit, sales, raw materials) and reputational. Time periods: Scenario indicators are considered in the short term (0-3 years), medium term (3-10 years) and long term (10-30 years) relevant to PhosAgro PJSC activities. This scenario is particularly relevant in the short and medium-term, where the greatest policy action is expected. Results and impact on business objectives: If this scenario materializes in the short term, the company expects increased risks of non-compliance with regulatory requirements. In the medium term, financial, reputational and personnel risks caused by transitional climatic factors will increase significantly. In this scenario, the company plans to supply the market with goods characterized by high consumer properties and improved climatic characteristics (innovative research and feasibility studies are planned). The forecast parameters of expected trends in risks and opportunities for PhosAgro, due to climate change caused by transitional factors, have been determined based on the scenario. The scenario was used to establish science-based targets of greenhouse gas emission reductions. Based on the results, PhosAgro has also developed a set of strategic measures to minimize climate risks and maximize opportunities offered by climate change (including, for example, improvement of mining and transportation processes of apatite-nepheline ore, improving energy efficiency in ammonia production, and other activities).</p>
RCP2.6	<p>Scenario definition: Air temperature, precipitation, number of dangerous hydrometeorological phenomena were used as input data. Assumptions regarding the climate change parameters originated from the IPCC's Fifth Assessment. The scenario was defined based on the expert evaluation and projections of input parameters' influence on risks and opportunities, which were further quantified according to the Company's risk assessment methodology. The following key areas of PhosAgro's activities (and corresponding business processes) were considered as part of the climatic scenario analysis: strategic (human resources and social), operational (design, business processes, environment, health and safety), production (technology, equipment, energy complex), regulatory (compliance with regulatory requirements), financial (interest, credit, sales, raw materials) and reputational. Time periods: Scenario indicators are considered in the short term (0-3 years), medium term (3-10 years) and long term (10-30 years) relevant to PhosAgro PJSC activities. This scenario is particularly relevant in the short and medium-term, where the greatest policy action is expected. Results and impact on business objectives: Under this scenario, the company expects significant growth in financial, reputational and personnel risks in the medium term due to physical climatic factors. In this scenario, the company plans to supply the market with goods characterized by high consumer properties and improved climatic characteristics (innovation research, feasibility studies). The scenario was used to establish science-based targets of greenhouse gas emission reductions. Based on the results, PhosAgro has also developed a set of strategic measures to minimize climate risks and maximize opportunities offered by climate change (including, for example, improvement of mining and transportation processes of apatite-nepheline ore, improving energy efficiency in ammonia production, and other activities).</p>

RCP8.5	<p>Scenario definition: Air temperature, precipitation, number of dangerous hydrometeorological phenomena were used as input data. Assumptions regarding the climate change parameters originated from the IPCC's Fifth Assessment. The scenario was defined based on the expert evaluation and projections of input parameters' influence on risks and opportunities, which were further quantified according to the Company's risk assessment methodology. The following key areas of PhosAgro's activities (and corresponding business processes) were considered as part of the climatic scenario analysis: strategic (human resources and social), operational (design, business processes, environment, health and safety), production (technology, equipment, energy complex), regulatory (compliance with regulatory requirements), financial (interest, credit, sales, raw materials) and reputational. Time periods: Scenario indicators are considered in the shortterm (0-3 years), medium term (3-10 years) and long term (10-30 years) relevant to PhosAgro PJSC activities. This scenario is particularly relevant in the short and medium-term, where the greatest policy action is expected. Results and impact on business objectives: Under this scenario, the company expects risks (especially in the long and medium term) to increase due to the impact of physical climatic factors on the company: (1) production processes - a shortage of cooling capacity in fertilizer production due to higher maximum temperatures and prolonged hot periods during the warm season and a significant complication of rock extraction and transportation conditions at apatite-nepheline raw material extraction sites; (2) operational processes - a violation of the raw material and product transportation regime (land and water transportation) caused by more frequent acute climatic factors. At the same time, we forecast real opportunities to expand sales markets by promoting crop production and other activities using the company's products in the northern direction. The scenario was used to establish science-based targets of greenhouse gas emission reductions. Based on the results, PhosAgro has also developed a set of strategic measures to minimize climate risks and maximize opportunities offered by climate change (including, for example, improvement of mining and transportation processes of apatite-nephe line ore, improving energy efficiency in ammonia production, and other activities).</p>
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**(C3.1d) Describe where and how climate-related risks and opportunities have influenced your strategy**

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Evaluation in progress	We recognize that developing low emission goods and services is an opportunity for business and expect the market for these to increase considerably over the medium term. In addition, we are constantly monitoring potential changes in demand in fertilizer markets as a result of both physical and transient climatic factors that could open up additional marketing opportunities for our products.

Supply chain and/or value chain	Yes	We recognize that in the near term (0-3 years) regulation charges are likely to result in energy prices rises. As a result, we have developed climatic criteria for the selection and evaluation of suppliers, which will become part of the standard procurement procedure.
Investment in R&D	Evaluation in progress	Ensure that climate change factors are taken into account in the industrial design of the Company's new construction and reconstruction projects.
Operations	Yes	Climate change risks and opportunities have influenced our business operations strategy in a number of ways. Two examples are as follows: 1) We see being perceived as a sustainable company as a short- and medium-term opportunity to attract a wider talent pool and lead to a more engaged and productive workforce. To support this we are working on integrating climate change considerations into a number of HR policies (recruitment, professional competence enhancement, etc.) and training. 2) In recognition of the risk that climate change could make our chemical manufacturing and storage operations unsafe in the medium to long term, we are planning improvements to our mining and transportation processes of apatite-nepheline ore.

**(C3.1e) Describe where and how climate-related risks and opportunities have influenced your financial planning.**

	Financial planning elements that have been influenced	Description of influence
Row 1	Capital expenditures	The capital expenditure required to improve the energy efficiency of steam and water cooling processes, combustion blowers, and fans at JSC Apatite (Cherepovets) was reflected in the capital expenditure plans for this year.

**C3.1f (C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).**

**C4. Targets and performance**

**C4.1 Did you have an emissions target that was active in the reporting year?**

No target.

**C4.1c Explain why you do not have emissions target and forecast how your emissions will change over the next five years**

	Primary reason	Five-year forecast	Please explain
Row 1	We are planning to introduce a target in the next two years	The total CO <sub>2</sub> e emissions of Scope 1 and Scope 2 will be reduced by approximately 500,000 tons.	Our focus during 2019 was to conduct the necessary work, including climate change scenario analysis, to be able to determine the most suitable business climate change targets. With this work now complete we introduced climate change targets in 2020 which will be reflected in next year's report.

		The presented value is forecasted taking into account the value of the target level of Scope 1 and Scope 2 emission reductions in 2028 (829,389 tons CO2e), as well as the forecasted production volumes.	
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**(C4.2) Did you have any other climate-related targets that were active in the reporting year?**

No other climate-related targets

**(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.**

Yes

**(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.**

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	10	
To be implemented*	13	30556
Implementation commenced*	8	82
Implemented*	3	4708
Not to be implemented	1	

**(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.**

**Initiative category & Initiative type**

Energy efficiency in production processes; Cooling technology

**Estimated annual CO2e savings (metric tonnes CO2e)**

262

**Scope(s)**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

**Investment required (unit currency – as specified in C0.4)**

**Payback period**

>25 years

**Estimated lifetime of the initiative**

21-30 years

**Comment**

JSC Apatite (Cherepovets) installed multi-frequency regulators to improve the energy efficiency of steam and water cooling processes, combustion blowers, and fans.

**Initiative category & Initiative type**

Energy efficiency in buildings Lighting

**Estimated annual CO2e savings (metric tonnes CO2e)**

463

**Scope(s)**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

**Investment required (unit currency – as specified in C0.4)**

**Payback period**

>25 years

**Estimated lifetime of the initiative**

21-30 years

**Comment**

Installation of LED lighting fixtures and street lights at the JSC Apatite (Cherepovets)

**Initiative category & Initiative type**

Energy efficiency in buildings Lighting

**Estimated annual CO2e savings (metric tonnes CO2e)**

3983

**Scope(s)**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)****Investment required (unit currency – as specified in C0.4)****Payback period**

&gt;25 years

**Estimated lifetime of the initiative**

21-30 years

**Comment**

Installation of motion sensors in office corridors, stairwells, and common areas at the Volkhovo facility.

**(C4.3c) What methods do you use to drive investment in emissions reduction activities?**

Method	Comment
Compliance with regulatory requirements/standards	PhosAgro allocates the necessary capital investments in order to comply with the requirements of current legislation and other regulatory requirements, such as the federal law "On Energy Conservation and Improving Energy Efficiency, and Introducing Amendments to Certain Legislative Acts of the Russian Federation," adopted on Nov. 23, 2009 (the "Energy Efficiency Law").
Financial optimization calculations	Charters for energy efficiency programs consider financial implications, such as operational savings.

**(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?**

No

**C5. Emissions methodology**

## C5.1 Provide your base year and base year emissions (Scopes 1 and 2)

### Scope 1

---

**Base year start**

January 1, 2018

**Base year end**

December 31, 2018

**Base year emissions (metric tons CO2e)**

4,855,258

**Comment**

-

### Scope 2 (location-based)

---

**Base year start**

January 1, 2018

**Base year end**

December 31, 2018

**Base year emissions (metric tons CO2e)**

1,070,699

**Comment**

-

### Scope 2 (market-based)

---

**Base year start**

-

**Base year end**

-

**Base year emissions (metric tons CO2e)**

-

**Comment**

-

## C5.2 Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

IPCC Guidelines for National Greenhouse Gas Inventories, 2006.

## C6. Emissions data

### (C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO<sub>2</sub>e? Reporting year

#### Gross global Scope 1 emissions (metric tons CO<sub>2</sub>e)

4656329

#### Start date

<Not Applicable>

#### End date

<Not Applicable>

#### Comment

### C6.2 Describe your organization's approach to reporting Scope 2 emissions

#### Row 1

---

#### Scope 2, location-based

We are reporting a Scope 2, location-based figure

#### Scope 2, market-based

We have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure

#### Comment

-

### C6.3 What were your organization's gross global Scope 2 emissions in metric tons CO<sub>2</sub>e?

#### Scope 2, location-based

1146218

#### Scope 2, market-based (if applicable)

<Not Applicable>

#### Start date

<Not Applicable>

#### End date



<Not Applicable>

### **Comment**

**C6.4 Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?**

Yes.

**C6.4a Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure**

### **Source**

PhosAgro has its own sales network in Russia and sales offices in priority export markets in Latin America and Europe (10 sales offices around the world).

### **Relevance of Scope 1 emissions from this source**

Emissions are not relevant

### **Relevance of location-based Scope 2 emissions from this source**

Emissions are not relevant

### **Relevance of market-based Scope 2 emissions from this source (if applicable)**

Please select

### **Explain why this source is excluded**

Emissions from sales offices are not significant (less than 5% of the total carbon footprint of the company).

**C6.5 Account for your organization's Scope 3 emissions, disclosing and explaining any exclusions**

### **Purchased goods and services**

---

#### **Evaluation status**

Relevant, calculated

#### **Metric tonnes CO<sub>2</sub>e**

3833506

#### **Emissions calculation methodology**

56% of greenhouse gas emissions in this category are calculated using the online calculator <https://quantis-suite.com/Scope-3-Evaluator/>. In this calculator, GHG emissions are estimated by using GHG emissions per unit of cost of purchasing goods

and services (from the Worldwide Cost-Emission Database (WIOD) and Open IO database). 4% of greenhouse gas emissions in this category are calculated using supplier data on greenhouse gas emissions per unit of the product supplied. 40% of greenhouse gas emissions in this category are calculated using GHG emissions per unit of the product supplied from the publicly available database

<https://www.bilansges.ademe.fr/en/basecarbone/donnees-consulter>.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

4

**Please explain**

-

**Capital goods**

---

**Evaluation status**

Relevant, calculated

**Metric tonnes CO<sub>2</sub>e**

318278

**Emissions calculation methodology**

Greenhouse Gas Protocol Area 3 Calculation Guide (using Quantis online calculator: <https://quantis-suite.com/Scope-3-Evaluator/>). Greenhouse gas emissions are estimated by using environmental cost data sets - releases based on the Worldwide Cost-Emission Database (WIOD) and the Open IO database. The initial flow volume was presented as a purchase volume at a base price.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

**Please explain**

-

**Fuel-and-energy-related activities (not included in Scope 1 or 2)**

---

**Evaluation status**

Relevant, calculated

**Metric tonnes CO<sub>2</sub>e**

1636826

### **Emissions calculation methodology**

The category includes greenhouse gas emissions from the production of fuel resources purchased by the Company (gasoline, fuel oil, diesel fuel natural gas). Greenhouse gas emissions are calculated based on the number of fuel resources purchased by the Company and greenhouse gas emission factors during the production of fuel resources from publicly available databases <https://www.bilans-ges.ademe.fr/en/basecarbone/donnees-consulter> and <https://naei.beis.gov.uk/data/ef-all-results?q=135856>.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

#### **Please explain**

-

### **Upstream transportation and distribution**

---

#### **Evaluation status**

Relevant, calculated

#### **Metric tonnes CO<sub>2</sub>e**

907655

### **Emissions calculation methodology**

Greenhouse Gas Protocol Area 3 Calculation Guide (using Quantis online calculator: <https://quantis-suite.com/Scope-3-Evaluator/>). Greenhouse gas emissions are estimated by using environmental cost data sets - releases based on the Worldwide Cost-Emission Database (WIOD) and the Open IO database. The initial flow volume was presented in the form of costs in US dollars for third-party transportation and warehousing operations.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

#### **Please explain**

-

### **Waste generated in operations**

---

**Evaluation status**

Not relevant, calculated

**Metric tonnes CO2e**

113491

**Emissions calculation methodology**

Greenhouse Gas Protocol Area 3 Calculation Guide (using Quantis online calculator: <https://quantis-suite.com/Scope-3-Evaluator/>). Greenhouse gas emissions are estimated by multiplying the OpenIO emissions data set for waste management with waste management costs.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

**Please explain**

-

**Business travel**

---

**Evaluation status**

Relevant, calculated

**Metric tonnes CO2e**

4428

**Emissions calculation methodology**

Greenhouse Gas Protocol Area 3 Calculation Guide (using Quantis online calculator: <https://quantis-suite.com/Scope-3-Evaluator/>). Greenhouse gas emissions are estimated by using environmental cost data sets - releases based on the Worldwide Cost-Emission Database (WIOD) and the Open IO database. The initial flow volume was presented in the form of a base price in US dollars by mode of transportation.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

**Please explain**

-

## **Employee commuting**

---

### **Evaluation status**

Not relevant, calculated

### **Metric tonnes CO<sub>2</sub>e**

20400

### **Emissions calculation methodology**

Greenhouse Gas Protocol Area 3 Calculation Guide (using Quantis online calculator: <https://quantis-suite.com/Scope-3-Evaluator/>). Greenhouse gas emissions are estimated on the assumption that the average worker emits 1700 kg of CO<sub>2</sub>-eq. / year.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

### **Please explain**

-

## **Upstream leased assets**

---

### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO<sub>2</sub>e**

<Not Applicable>

### **Emissions calculation methodology**

<Not Applicable>

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

### **Please explain**

The activity is not material.

## **Downstream transportation and distribution**

---

### **Evaluation status**

Relevant, calculated

**Metric tonnes CO2e**

228558

**Emissions calculation methodology**

Greenhouse Gas Protocol Area 3 Calculation Guide (using Quantis online calculator: <https://quantis-suite.com/Scope-3-Evaluator/>). Greenhouse gas emissions are estimated by multiplying the OpenIO emissions dataset by the total cost of transportation and distribution down the value chain.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

**Please explain**

-

**Processing of sold products**

---

**Evaluation status**

Not relevant, calculated

**Metric tonnes CO2e**

77847

**Emissions calculation methodology**

This category includes greenhouse gas emissions from the processing of apatite concentrate sold by PhosAgro to other mineral fertilizer producers. The calculation was performed using data on sales volumes of apatite concentrate and greenhouse gas emissions per tonne of apatite concentrate.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

**Please explain**

-

**Use of sold products**

---

**Evaluation status**

Relevant, calculated

**Metric tonnes CO2e**

7841129

**Emissions calculation methodology**

Calculation of greenhouse gas emissions for this category was performed according to the methodology presented in Chapter 11 "N2O emissions from cultivated soils and CO2 emissions from lime and urea. Volume 4: Agriculture, forestry and other land uses. Guidelines for National Greenhouse Gas Inventories, IPCC, 2006.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

**Please explain**

-

**End of life treatment of sold products**

---

**Evaluation status**

Not relevant, calculated

**Metric tonnes CO2e**

191

**Emissions calculation methodology**

Greenhouse Gas Protocol Area 3 Calculation Guide (using Quantis online calculator: <https://quantis-suite.com/Scope-3-Evaluator/>). For sold products and related material groups, the calculator uses the US Emission Factors for Landfill (USEPA). This assumption of 100 percent landfill is overestimated, considering that some waste is incinerated. All units sold (as weight or mass) are the initial flow values.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

**Please explain**

-

**Downstream leased assets**

---

**Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO<sub>2</sub>e**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

**Please explain**

The activity is not material.

**Franchises**

---

**Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO<sub>2</sub>e**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

**Please explain**

The activity is not material.

**Investments**

---

**Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO<sub>2</sub>e**

<Not Applicable>

**Emissions calculation methodology**



<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

**Please explain**

The activity is not material.

**Other (upstream)**

---

**Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO<sub>2</sub>e**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

**Please explain**

The activity is not material.

**Other (downstream)**

---

**Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO<sub>2</sub>e**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

**Please explain**

The activity is not material.

**C6.7 Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?**

No.

**C6.10 Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO<sub>2</sub>e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations**

**Intensity figure**

0.001738

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO<sub>2</sub>e)**

5802547

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

3338286680

**Scope 2 figure used**

Location-based

**% change from previous year**

9.2

**Direction of change**

Increased

**Reason for change**

The main reason for the increased intensity of emissions is the depreciation of the rouble against the US dollar, which led to a decrease in profit in the US dollar equivalent (excluding exchange rate differences).

**Intensity figure**

529

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO<sub>2</sub>e)**

5802547

**Metric denominator**

full time equivalent (FTE) employee

**Metric denominator: Unit total**

10976

**Scope 2 figure used**

Location-based

**% change from previous year**

4.7

**Direction of change**

Decreased

**Reason for change**

The main reasons for the decrease in emission intensity include the cumulative effect of heat capture/cogeneration and various energy efficiency measures implemented in previous years and in 2019, as well as the increase in the number of employees from 10.68 thousand in 2018 to 10.98 thousand in 2019.

**C7. Emissions breakdowns****C7.1 Does your organization break down its Scope 1 emissions by greenhouse gas type?**

Yes.

**C7.1a Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP)**

<b>Greenhouse gas</b>	<b>Scope 1 emissions (metric tons of CO2e)</b>	<b>GWP Reference</b>
CO <sub>2</sub>	4 404 307	IPCC Fifth Assessment Report (AR5 – 100 year)
CH <sub>4</sub>	1 384	IPCC Fifth Assessment Report (AR5 – 100 year)
N <sub>2</sub> O	250 638	IPCC Fifth Assessment Report (AR5 – 100 year)

**C7.2 Break down your total gross global Scope 1 emissions by country/region**

<b>Country/Region</b>	<b>Scope 1 emissions (metric tons CO2e)</b>
Russian Federation	4 656 329

**C7.3 Indicate which gross global Scope 1 emissions breakdowns you are able to provide**

By business division

By activity

**C7.3a Break down your total gross global Scope 1 emissions by business division**

<b>Business division</b>	<b>Scope 1 emissions (metric ton CO2e)</b>
JSC Apatit (Cherepovets)	3 746 069
Kirovsk branch of JSC Apatit	636 303
Balakovo branch of JSC Apatit	152 632
Volkhov branch of JSC Apatit	121 325

**C7.3c Break down your total gross global Scope 1 emissions by business activity**

<b>Activity</b>	<b>Scope 1 emissions (metric tons CO2e)</b>
1A2 Manufacturing Industries and Construction	1 722 709
1A2c Chemicals	1 231 830
1A2i Mining (excluding fuels) and Quarrying	490 879
1A3 Transport	155 289
1A3b Road Transportation	97 541
1A3c Railways	42 530
1A3e Other Transportation	15 217
2B1 Ammonia Production	2 535 977
2B2 Nitric Acid Production	242 354

**C-CE7.4/ C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4 Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e**

			Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	4501040	<Not Applicable>	This figure does not include GHG emissions from transport activities that are not directly related to the production of chemicals.
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and	<Not	<Not	<Not Applicable>

mining production activities	Applicable>	Applicable>	
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

#### C7.5 Break down your total gross global Scope 2 emissions by country/region

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
Russian Federation	1 146 218		2 707 780	

#### C7.6 Indicate which gross global Scope 2 emissions breakdowns you are able to provide

By business division

By facility

#### C7.6a Break down your total gross global Scope 2 emissions by business division

Business division	Scope 2, location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
JSC Apatit (Cherepovets)	196 977	

Kirovsk branch of JSC Apatit	811 550	
Balakovo branch of JSC Apatit	66 033	
Volkhov branch of JSC Apatit	71 658	

**C7.6b Break down your total gross global Scope 2 emissions by business facility**

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
JSC Apatit (Cherepovets) - Phosphates Complex	109544	
JSC Apatit (Cherepovets) - Nitrogen Complex	87433	
Kirovs κ branch of JSC Apatit - Kirovsky mine	161520	
Kirovs κ branch of JSC Apatit - Rasvumchorsky mine	36790	
Kirovs κ branch of JSC Apatit - Vostochny mine	43309	
Kirovs κ branch of JSC Apatit - AN BP-2	165264	
Kirovs κ branch of JSC Apatit - AN BP-3	344210	
Kirovs κ branch of JSC Apatit - other auxiliary facilities	60457	
Balakovo branch of JSC Apatit - Sulphuric acid production	22834	
Balakovo branch of JSC Apatit - Wet-process phosphoric acid production	18316	
Balakovo branch of JSC Apatit - Mineral salts production	2799	
Balakovo branch of JSC Apatit - Phosphate fertilizers production	12587	
Balakovo branch of JSC Apatit - Other auxiliary faciities	9497	
Volkhov branch of JSC Apatit - Mineral fertilizers production	8187	
Volkhov branch of JSC Apatit - Phosphoric acid and polyphosphates production	30349	
Volkhov branch of JSC Apatit - Sulfuric acid production	7796	
Volkhov branch of JSC Apatit - Other auxiliary facilities	25326	

**C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7 Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e**

	Scope 2, location-based,	Scope 2, market-based (if applicable),	Comment
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	metric tons C02e	metric tons C02e	
Cement production activities	<Not Applicable:>	<Not Applicable>	<Not Applicable>
Chemicals production activities	1086919		This figure only includes GHG emissions from energy consumption directly related to chemicals production activities.
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

**C-CH7.8 Disclose the percentage of your organization's Scope 3, Category 1 emissions by purchased chemical feedstock**

<b>Purchased feedstock</b>	<b>Percentage of Scope 3, Category 1 tCO2e from purchased feedstock</b>	<b>Explain calculation methodology</b>
Soda ash	5.7	Greenhouse Gas Protocol Area3 Calculation Guide (using Quantis online calculator: <a href="https://guantis-suite.com/Scope-3-Evaluator/">https://guantis-suite.com/Scope-3-Evaluator/</a> ). Greenhouse gas emissions are estimated by using environmental cost data sets - releases based on the Worldwide Cost-Emission Database (WIOD) and the Open 10 database. The initial flow volume

		was presented as a purchase volume, at a base price.
Other base chemicals	94.1	Greenhouse Gas Protocol Area3 Calculation Guide (using Quantis online calculator: <a href="https://quantis-suite.com/Scope-3-Evaluator/">https://quantis-suite.com/Scope-3-Evaluator/</a> ). Greenhouse gas emissions are estimated by using environmental cost data sets - releases based on the Worldwide Cost-Emission Database (WIOD) and the Open 10 database. The initial flow volume was presented as a purchase volume, at a base price.
Natural gas	0.2	Greenhouse Gas Protocol Area3 Calculation Guide (using Quantis online calculator: <a href="https://quantis-suite.com/Scope-3-Evaluator/">https://quantis-suite.com/Scope-3-Evaluator/</a> ). Greenhouse gas emissions are estimated by using environmental cost data sets - releases based on the Worldwide Cost-Emission Database (WIOD) and the Open 10 database. The initial flow volume was presented as a purchase volume at a base price.

#### C-CH7.8a Disclose sales of products that are greenhouse gases

	Sales, metric tons	Comment
Carbon dioxide (CO2)	0	
Methane (CH4)	0	
Nitrous oxide (N2O)	0	
Hydrofluorocarbons (HFC)	0	
Perfluorocarbons (PFC)	0	
Sulphur hexafluoride (SF6)	0	
Nitrogen trifluoride (NF3)	0	

#### C-7.9 How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

#### C-7.9a Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy		<Not Applicable>		



consumption				
Other emissions reduction activities	4708	Decreased	0.08	Total annual emission reductions for all energy efficiency initiatives implemented at PhosAgro in 2019, divided by total emissions for 2018.
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable >		
Mergers		<Not Applicable>		
Change in output		<Not Applicable >		
Change in methodology	118702	Decreased	2	Net reduction in emissions (taking into account the impact of energy efficiency initiatives) divided by total emissions in 2018.
Change in boundary		<Not Applicable >		
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable >		
Other		<Not Applicable>		

**C-7.9b Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?**

Location-based.

## **C8. Energy**

**C8.1 What percentage of your total operational spend in the reporting year was on energy?**

More than 10% but less than or equal to 15%

**C8.2 Select which energy-related activities your organization has undertaken**

	<b>Indicate whether your organization undertakes this energy-related activity</b>
Consumption of fuel (excluding feedstocks)	Yes

Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

**C8.2a Report your organization's energy consumption totals (excluding feedstocks) in MWh**

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	9561576	9561576
Consumption of purchased or acquired electricity	<Not Applicable>	0	2234897	2234897
Consumption of purchased or acquired heat	<Not Applicable>	0	251096	251096
Consumption of purchased or acquired steam	<Not Applicable>	0	221787	221787
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	0	<Not Applicable>	0
Total energy consumption	<Not Applicable>	0	12269356	12269356

**C-CH8.2a Report your organization's energy consumption totals (excluding feedstocks) for chemical production activities in MWh**

	Heating value	Total MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	2815392
Consumption of purchased or acquired electricity	<Not Applicable >	2192924
Consumption of purchased or acquired heat	<Not Applicable>	93804
Consumption of purchased or acquired steam	<Not Applicable >	121413
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable >	0
Total energy consumption	<Not Applicable>	5223533

## C8.2b Select the applications of your organization's consumption of fuel

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

## C8.2c State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type

### Fuels (excluding feedstocks)

Natural Gas

### Heating value

LHV (lower heating value)

### Total fuel MWh consumed by the organization

5517601

### MWh fuel consumed for self-generation of electricity

1924564

### MWh fuel consumed for self-generation of heat

233066

### MWh fuel consumed for self-generation of steam

3359971

### MWh fuel consumed for self-generation of cooling

<Not Applicable>

### MWh fuel consumed for self-cogeneration or self-trigeneration

0

### Emission factor

54.4

### Unit

kg CO2 per GJ

**Emissions factor source**

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

**Comment**

-

**Fuels (excluding feedstocks)**

Fuel Oil Number 1

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

663406

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

663406

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**

0

**Emission factor**

77.4

**Unit**

kg CO2 per GJ

**Emissions factor source**

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

**Comment**

-

**Fuels (excluding feedstocks)**

Fuel Oil Number 2

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

8682

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

8682

**MWh fuel consumed for self-generation of steam**

0

**MWh fuel consumed for self-generation of cooling**

&lt;Not Applicable&gt;

**MWh fuel consumed for self-cogeneration or self-trigeneration**

0

**Emission factor**

77.4

**Unit**

kg CO2 per GJ

**Emissions factor source**

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

**Comment****C8.2d List the average emission factors of the fuels reported in C8.2c**

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	1500109	1500109	0	0
Heat	515915	464248	0	0
Steam	9770083	9678854	0	0

Cooling	0	0	0	0
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**(C-CH8.2d) Provide details on electricity, heat, steam, and cooling your organization has generated and consumed for chemical production activities**

	Total gross generation (MWh) inside chemicals sector boundary	Generation that is consumed (MWh) inside chemicals sector boundary
Electricity	1274482	1274482
Heat	0	0
Steam	6686235	6686235
Cooling	0	0

**(C-CH8.3) Does your organization consume fuels as feedstocks for chemical production activities?**

Yes

**C-CH8.3a (C-CH8.3a) Disclose details on your organization's consumption of fuels as feedstocks for chemical production activities.**

**Fuels used as feedstocks**

Natural gas

**Total consumption**

3929428

**Total consumption unit**

thousand cubic metres

**Inherent carbon dioxide emission factor of feedstock, metric tons CO2 per consumption unit**

1,84

**Heating value of feedstock, MWh per consumption unit**

9,4

**Heating value**

LHV

**Comment**

**(C-CH8.3b) State the percentage, by mass, of primary resource from which your chemical feedstocks derive**

	Percentage of total chemical feedstock (%)
Oil	0
Natural Gas	100
Coal	0

Biomass	0
Waste (non-biomass)	0
Fossil fuel (where coal, gas, oil cannot be distinguished)	0
Unknown source or unable to disaggregate	0

## C9. Additional metrics

### C9.1 Provide any additional climate-related metrics relevant to your business

-

#### C-CH9.3a Provide details on your organization's chemical products

##### Output product

Ammonia

##### Production (metric tons)

1930085

##### Capacity (metric tons)

1930085

##### Direct emissions intensity (metric tons CO<sub>2</sub>e per metric ton of product)

1.314

##### Electricity intensity (MWh per metric ton of product)

0.147

##### Steam intensity (MWh per metric ton of product)

0.323

##### Steam/ heat recovered (MWh per metric ton of product)

0

##### Comment

-

##### Output product

Other, please specify (Sulfuric acid)

##### Production (metric tons)

6123006

##### Capacity (metric tons)

6123006

**Direct emissions intensity (metric tons CO2e per metric ton of product)**

0.001

**Electricity intensity (MWh per metric ton of product)**

0.061

**Steam intensity (MWh per metric ton of product)**

0.091

**Steam/ heat recovered (MWh per metric ton of product)**

0.874

**Comment**

-

**Output product**

Other, please specify (Phosphoric acid and polyphosphates)

**Production (metric tons)**

2782935

**Capacity (metric tons)**

2794750

**Direct emissions intensity (metric tons CO2e per metric ton of product)**

0.027

**Electricity intensity (MWh per metric ton of product)**

0.137

**Steam intensity (MWh per metric ton of product)**

0.989

**Steam/ heat recovered (MWh per metric ton of product)**

0

**Comment**

-

**Output product**



Other, please specify (Aluminium fluoride)

**Production (metric tons)**

56696

**Capacity (metric tons)**

10000

**Direct emissions intensity (metric tons CO2e per metric ton of product)**

0.277

**Electricity intensity (MWh per metric ton of product)**

0.327

**Steam intensity (MWh per metric ton of product)**

1.12

**Steam/ heat recovered (MWh per metric ton of product)**

0

**Comment**

-

**Output product**

Other, please specify (Mineral fertilizers)

**Production (metric tons)**

9517837

**Capacity (metric tons)**

9574000

**Direct emissions intensity (metric tons CO2e per metric ton of product)**

0.025

**Electricity intensity (MWh per metric ton of product)**

0.061

**Steam intensity (MWh per metric ton of product)**

0.246

**Steam/ heat recovered (MWh per metric ton of product)**

0

**Comment**

-

**(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-T09.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?**

Yes

**(C-CH9.6a) Provide details of your organization’s investments in low-carbon R&D for chemical production activities over the last three years.**

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Waste heat recovery	Large scale commercial deployment	81 -100%		PhosAgro continuously invests in equipment that allows it to independently generate electricity using waste heat generated during the production process, known as cogeneration. Recent cogeneration capital investment programs include assets put into operation in the course of deploying a new sulphuric acid production technology system and overhauling production equipment between 2018 and 2020. These facilities use waste heat generated by burning sulphuric acid in the production of phosphate fertilizers, which provides 100% of the electricity required by the respective production facility, while an additional 10%-15% is sold to the local network or other users. The total investment will be equivalent to at least \$135 million.

**C10. Verification**

**C10.1 Indicate the verification/assurance status that applies to your reported emissions**

	Verification/assurance status
Scope 1	No third-party verification or assurance
Scope 2 (location-based or market-based)	No third-party verification or assurance
Scope 3	No third-party verification or assurance

**C10.2 Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?**

No, but we are actively considering verifying within the next two years.

## **C11. Carbon pricing**

**C11.1 Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?**

No, but we anticipate being regulated in the next three years.

**C11.1d What is your strategy for complying with the systems in which you participate or anticipate participating?**

The draft Federal Law "On State Regulation of Greenhouse Gas Emissions and on Amendments to Certain Legislative Acts of the Russian Federation", developed in July 2018, establishes the target indicators of greenhouse gas emissions in addition to the existing standards, and also regulates the accounting regime for greenhouse gas sequestration. These standards are not currently defined and the draft law is currently undergoing regulatory impact assessment. However, we are actively working with government agencies and industry associations to identify the next steps that need to be taken.

In addition, the Carbon Border Adjustment Mechanism (CBA), part of the European Green Deal, is likely to be implemented, which could lead to increased costs associated with selling our products on European markets through the need to pay additional fees.

Preparing for possible regulatory changes is an important element in developing PhosAgro's overall climate strategy. We believe that raising general awareness of our carbon footprint and climate risks is the main prerequisite for success in this area. In addition, we intend to introduce domestic carbon payments in the coming years and participate in prestigious international and domestic initiatives as well as projects in this area. We are closely monitoring the potential future impact of proposed legislative and regulatory changes on our operations, operating costs, and capital resources.

**C11.2 Has your organization originated or purchased any project-based carbon credits within the reporting period?**

No.

**C11.3 Does your organization use an internal price on carbon?**

No, but we anticipate doing so in the next two years.

## **C12. Engagement**

**C12.1 Do you engage with your value chain on climate-related issues?**

Yes, our suppliers.

## **(C12.1a) Provide details of your climate-related supplier engagement strategy.**

### **Type of engagement**

Information collection (understanding supplier behavior)

### **Details of engagement**

Collect climate change and carbon information at least annually from suppliers

### **% of suppliers by number**

15

### **% total procurement spend (direct and indirect)**

4

### **% of supplier-related Scope 3 emissions as reported in C6.5**

1.7

### **Rationale for the coverage of your engagement**

PhosAgro has developed a Climate Strategy and is currently in the process of planning its implementation. The Climatic Strategy includes the concept of a supplier plan. The main objective of the Supplier Engagement Plan is to manage greenhouse gas emissions along the value chain to obtain the necessary data to enable the Company to regulate corporate actions and influence key suppliers and customers in the area of greenhouse gas emissions reduction. According to the Plan of interaction with the participants of the value chain, work with the suppliers of goods and services for the needs of the Company has been started. The main groups of suppliers are (1) energy and fuel and lubricants, (2) containers for product transportation, (3) equipment for reconstruction and new construction facilities, mining, pipeline construction, (4) raw materials, etc., as well as suppliers of transportation services for the Company's production needs. The total list of suppliers of goods exceeds 1500 items, of which the suppliers of raw materials make up roughly 300 items. Requests to suppliers were made for the largest items, where the costs added together constitute more than 57% of the total costs, or 12% of the total number of suppliers of raw materials. According to the responses received, only 15% of suppliers provided the required data. The total list of suppliers of fuels and lubricants is 22 items. Requests to suppliers were made for the largest items, the costs of which together account for more than 70% of the total costs of fuels and lubricants, or 22% of the total number of suppliers of fuels and lubricants. None of them provided the required data.

### **Impact of engagement, including measures of success.**

The results showed that most suppliers did not have information on direct and indirect

energy emissions of greenhouse gases in the production of goods, and, consequently, there was no system for collecting and analyzing climate data. The company has made a responsible decision to strengthen its work with suppliers in the climate field in order to encourage them to analyze the climatic aspects of their activities and take real actions to reduce their climate footprint. As a priority step, the competitive procedures for the selection of suppliers of goods and services for the Company's needs now include climate indicators that reflect: (1) availability of published reports on greenhouse gas emissions, (2) availability of strategic and planning documents in the climatic sphere, including GHG emissions targets, measures to reduce GHG emissions, etc., (3) data on GHG1 and GHG2 emissions per unit of supplied products (services) that are subject to competitive bidding, (4) information on the origin of the products (services) that are subject to competitive bidding. It is too early to assess the impacts of these measures yet but their impact will be considered next year.

**Comment**

**C12.3 Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?**

Direct engagement with policy makers

Trade associations

Funding research organizations

Other

**C12.3a On what issues have you been engaging directly with policy makers?**

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Other, please specify (Emissions limits and over-limit payments)	Support	The draft Federal Law of the Russian Federation "On State Regulation of Greenhouse Gas Emissions and on Amendments to Certain Legislative Acts of the Russian Federation", submitted for consideration in July 2018, will set targets for greenhouse gas emissions in addition to existing regulations and regulate the reporting regime for greenhouse gas sequestration (capture and storage). PJSC "PhosAgro" actively participates in the discussion of the draft law and has made formal proposals for its amendment with a view to clarifying its content.	The amendments to the draft law proposed by PhosAgro are as follows: A clearer description of the object of regulation, a clearer formulation that discloses the definition of "Direct greenhouse gas emissions and uptake by sinks", "monitoring direct greenhouse gas emissions", as well as eliminating potential conflicts with existing laws on air emissions regulation. In addition, the management of PhosAgro proposed to include a provision on conducting an experiment in selected regions of the Russian Federation to test the mechanism for issuing permits for greenhouse gas emissions.

**C12.3b Are you on the board of any trade associations or do you provide funding beyond membership?**

Yes.

**C12.3c Enter the details of those trade associations that are likely to take a position on climate change legislation.**

**Trade association**

Russian Association of Fertilizer Producers

**Is your position on climate change consistent with theirs?**

Unknown

**Please explain the trade association's position**

The Association's official position on climate change is to be further defined.

**How have you influenced, or are you attempting to influence their position?**

As the Chair of the association, PhosAgro's CEO, A.A. Guriev, affects the overall direction of its activities. In addition, PhosAgro provides funding to continue the work of the association in order to determine its position with respect to climate topics in general and climate change legislation in particular.

**Trade association**

International Fertilizer Industry Association

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

Per IFA's website: "Fertilizers play an important role in combating climate change. The agricultural sector is one of the most vulnerable to climate change, and its negative effects (such as extreme weather events, rising temperatures, declining availability of water and other resources) have begun to seriously affect the livelihoods of agriculture in many regions. When considering greenhouse gas emissions from fertilizer use, the focus should be on relative emissions of crops grown with fertilizer. Zero emissions are not achievable, given that we are dealing with natural biological processes. GHG emissions associated with fertilizer production account for about 1% of the total GHG emissions in the world. This can be considered a small amount, given that global agricultural production will be reduced by 50% without the use of mineral fertilizers. But the industry is also committed to reducing greenhouse gas emissions associated with production."

**How have you influenced, or are you attempting to influence their position?**

PhosAgro supports the IFA position by providing them with energy efficiency and CO2 emissions data. IFA members are regularly invited to participate in IFA benchmarks to track their energy efficiency and GHG emissions. This information is included in the IFA Energy Efficiency and CO2 Emissions Report and the IFA Environmental Report.

**C12.3d Do you publicly disclose a list of all research organizations that you fund?**

No.

**C12.3e Provide details of the other engagement activities that you undertake?**

Information on the financial support of research organizations is open and disclosed by PhosAgro PJSC as part of the general information about the Company. The primary research funded is the Green Energy for Life scheme run in conjunction with UNESCO. PhosAgro's involvement is clearly stated on the corporate website (see <https://www.phosagro.com/about/greenchemistry/>). The scheme provides financial and academic support to promising chemists doing research in environmental protection, healthcare, food production, energy efficiency and sustainable use of natural resources.

**C12.3f What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?**

Approaches and activities that affect the policy are consistent with (1) PhosAgro's Climate Strategy; (2) the Environmental Policy; and (3) the company's Development Strategy to 2025. In implementing the Climatic Strategy, we rely on existing corporate governance processes to ensure that the public position of PhosAgro goes through appropriate levels of approval and is ultimately approved by the Board of Directors or relevant corporate officers.

**C12.4 Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).**

**Publication**

In mainstream reports

**Status**

Complete

**Attach the document**

PhosAgro 2019 Integrated Report.pdf

**Page/Section reference**

Pp. 7, 54, 55

**Content elements**

Strategy

Emissions figures

**Comment**

## C15. Signoff

C-FI Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

**C15.1 Provide details for the person that has signed off (approved) your CDP climate change response.**

	<b>Job title</b>	<b>Corresponding job category</b>
Row 1	Head of the Environmental Management and Control Department	Environment/Sustainability manager

***Submit your response.***

***In which language are you submitting your response?***

English

***Please confirm how your response should be handled by CDP***

	<b>Public or Non-Public Submission</b>	<b>I am submitting to</b>
I am submitting my response	Public	Investors