

# **Environmental stewardship**

## **APPROACH TO ENVIRONMENTAL MANAGEMENT**

The continuous development of sustainable operations is an integral part of EVRAZ priority strategic goals. As a mining and steel-making company, we aim to reduce the negative impacts caused by our day-to-day operations in order to be compliant with applicable legal environmental requirements and consistent with the expectations of our stakeholders. The Group's multifaceted approach to environmental issues is reflected both in our business strategy and environmental governance structure.

At Management Company level the Environmental Management Directorate handles environmental issues, including in relation to the Group's strategy and KPIs, environmental planning, developing corporate requirements, environment-related data collection and consolidation, environmental reporting, and monitoring respective risks and obligations.

The EVRAZ Environmental Management Directorate is responsible for the majority of environment-related activities, and liaises with the Group's segments on matters concerning our environmental performance.

## **Environmental Management System**

In line with our HSE Policy we strive to use the best available technologies and adopt the most reliable management practices, which allows us to accelerate the shift towards sustainability. Our corporate Environmental Management System (EMS) is based on the following principles:

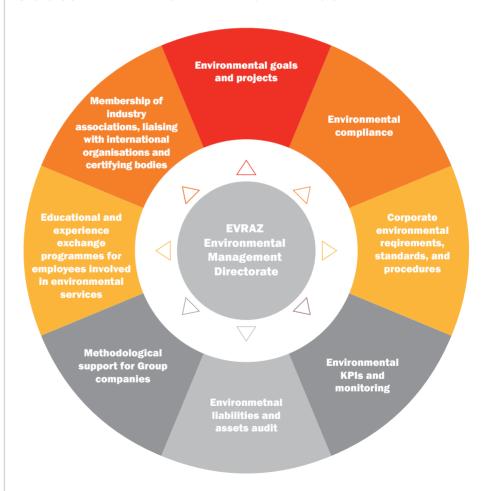
- Coordinating environmental programmes and the Group's development strategy
- Environmental risk assessment and mitigation, risk-audits of current and prospective assets
- Risk-based justifications of environmental projects
- Managing environmental projects in accordance with the management of investment projects, the consideration and approval of such projects by the Management Company, and personal responsibility for project implementations
- Lliaising with the Law department on environmental regulatory issues
- Continual monitoring and analysis of applicable legislation

EVRAZ recognises a variety of risks and liabilities related to our primary activities and is committed to preventing or minimising environmental impacts caused by steel-making and mining processes. All Group enterprises, therefore, are obliged to perform environmental procedures under the EVRAZ EMS, which is based on the plan-do-check-act (PDCA) model and has been developed for all Group operations to extend the principles of EVRAZ HSE Policy and contribute to attaining EVRAZ environmental targets. EMS procedures are managed by the Headquarters (HQ) Environmental Management Directorate.

#### **KEY EVENTS**

- Installation of the "cleanest" in Russia metallurgy blast furnace at EVRAZ NTMK
- 3,500 trees planted by EVRAZ employees as part of landscaping and land rehabilitation projects
- 72,300 whitebait fish were released into the rivers of the Kemerovo and Sverdlovsk regions in 2018 as part of aquatic restoration activities

#### FUNCTIONS OF THE EVRAZ ENVIRONMENTAL MANAGEMENT DIRECTORATE



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#### **KEY EMS PROCEDURES AT EVRAZ**

Procedure	Description		
Monitoring legal environmental requirements	Aims to keep operational management informed about legislative changes on a daily basis and provide a legal opinion on the implementation of environmental requirements. All significant regulatory changes are reported to vice presidents, the CEO, and HSE Committee.		
Environmental risk assessment	Aims to identify environmental risks and develop management measures. The environmental risk assessment approach is consistent with the general risk management framework across EVRAZ. The risks and related management actions are reviewed by vice presidents of the segments, the CEO, and HSE Committee on a quarterly basis.		
Environmental commitments assessment	A unified approach to managing environmental commitments to ensure environmental compliance and reduce the risk of failure to fulfil environmental commitments in a timely manner, which could lead to the withdrawal of environmental permits and licences, the imposition of penalties, and the suspension of operations.		
Environmental planning	The methodology and approach for setting annual KPIs and budgeting for environmental activities. It is based on legal compliance and risk management principles.		
Environmental project management	A unified approach towards the justification and management of environmental projects, based on environmental risk assessment and project management principles. The objective is to ensure that each environmental project has targets, terms, a budget, and resources.		
Asset retirement obligation assessment	A unified approach towards providing site rehabilitation estimates, as part of legal obligations related to the retirement of a tangible long-lived asset (i.e. remediation work, such as land rehabilitation, removing underground fuel storage tanks, clean-ups, etc.)		
Environmental and social impact assessment (ESIA)	EVRAZ conducts an ESIA for all new operations and projects, which includes consulting with local and regional governments, businesses and community members in the affected area. ESIAs evaluate any potential direct or indirect impacts that the new operation may have on the local community and the surrounding environment. The ESIA process entails creating mitigation plans to minimise and manage any potential impacts, as well as consulting with local communities on any decisions that may be made throughout the project's life.		
Environmental due diligence (Audits)	The process established for identifying environmental liability and risks associated both with existing sites and assets being acquired. The process is organised in addition to internal environmental audits and inspections conducted by site specialists.		
REACH compliance	The procedure established for maintaining compliance with regulations on the registration, evaluation, authorisation, and restriction of chemicals (REACH).		
Corporate environmental reporting (management review)	Establishes the methodology and terms for evaluating EVRAZ environmental performance. The guidelines aim to ensure a uniform approach to collecting and analysing environmental data at the Group's facilities.		

We place great emphasis on developing a fundamental environmental management system and, in order to be in line with the best international practices, we certify our production facilities under the ISO 14001 standard. EVRAZ is proud that all our major steel mills had received this certification.

## EVRAZ Fundamental Environmental Requirements

Technological processes in metallurgical production are inevitably linked to environmental impacts. In order to minimise the number of onsite incidents, the Group has developed the EVRAZ Fundamental Environmental Requirements.

Violation of the Fundamental Environmental Safety Requirements shall result in disciplinary action against the managers of the respective structural units and further financial penalty.

EVRAZ is obliged to meet the environmental requirements set by the authorities of the regions where it operates. Monitoring environmental compliance is a key EVRAZ EMS procedure, and is performed on a daily basis.

## EVRAZ FUNDAMENTAL ENVIRONMENTAL REQUIREMENTS



It is forbidden to shut down environmental control systems without proper authorisation and notification



It is forbidden to discharge any chemical products (oil, acids, alkali and other liquid products prohibited for discharge under the company's technological requirements) both into sewage systems and on the ground



It is forbidden to burn or dump production and consumption waste outside designated areas

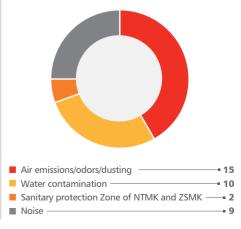
Expenditure related to improving environmental performance amounted to US\$29.8 million in 2018, compared to US\$28 million in 2017. The total value of non-compliance related fines and penalties stood at US\$2.2 million in 2018, compared to US\$2.6 million in 2017.

In 2018 no significant environmental accidents<sup>1</sup> occurred at the Group's companies. However, in 2018 we registered 36 public complaints, and each of them was thoroughly investigated and feedback was provided. EVRAZ ZSMK and EVRAZ NTMK, which received complaints

concerning air emissions, odors and dusting, are executing "Clear Air" projects (for further details, see Reducing emissions pages 51-52) to reduce such effects of their operation.

Raspadskaya-Koksovaya, which received a public complaint concerning water contamination, is building a new treatment facility to improve the quality of discharged water (for further details on our environmental programmes and projects, see Environmental strategy page 48).

#### **REGISTERED PUBLIC COMPLAINTS, 2018**



<sup>1</sup> Significant environmental accidents (first and second category incidents) comprise massive discharges into natural zones, hazardous emissions, the destruction of reservoirs, and fires at facilities.



## **Trainings**

As part of ongoing efforts to raise awareness of environmental issues among EVRAZ management, environmental specialists, and onsite workers, we regularly conduct various training courses and seminars. These include annual sessions for the HQ Environmental team (which consists of all environmental project leaders), where we hold internal workshops and participate in external events, mainly conferences. Plant workers are given the opportunity to do environmental courses at the EVRAZ corporate learning centre.

#### **TRAINING FOCUS AREAS IN 2018**

**ANNUAL ENVIRONMENTAL SESSION** 

- Responding to environmental requirements becoming more stringent

- Five-year environmental targets
  Status of environmental programmes
  Switching to the best available technologies

**EMPLOYEE ENVIRONMENTAL TRAININGS** 

- Waste management
- Regulatory changes

### **ENVIRONMENTAL STRATEGY**

EVRAZ addresses environmental issues at a strategic level, hence our environmentrelated goals constitute a crucial part of the Group's objectives. Our main focus areas are water management, waste management, and air emissions, since these are most exposed to negative impacts from metallurgical production. In 2017 the HSE Committee adopted three major five-year environmental targets in relation to these topics, as well as a number of programmes aimed at improving overall environmental performance.

By the end of 2018 the Group had made visible progress in terms of the water consumption target - fresh water consumption was down by 29.1%. The overall share of 111.3% of non-mining waste was recycled, compared to 104.7% in the previous year. We succeeded in lowering the greenhouse gas intensity ratio by 1%, and are making steady progress towards achieving our five-year goal.

## **Environmental programmes**

Key environmental programmes being implemented at EVRAZ companies include:

- The Clear Air national ecological project at EVRAZ ZSMK
- The Clear Air national ecological project at EVRAZ NTMK
- Off gas systems update at EVRAZ Vanady Tula
- Water protection programme at EVRAZ ZSMK and Raspadskaya Coal Company
- Coking plant biochemical unit upgrade at EVRAZ NTMK

#### **EVRAZ FIVE-YEAR ENVIRONMENTAL TARGETS**

Area	Five-year target (2018–2022)	2018 results
Fresh water consumption reduction	by 10%	by 29.1%
Recycling of non-mining waste and by-products	to 95% per year	111.3% per year
Not exceeding the greenhouse gas (GHG) intensity ratio	to maintain the intensity ratio below two tonnes of carbon dioxide $({\rm CO_2})$ equivalent $({\rm tCO_2}e)$ per tonne of steel cast	2.005 tCO <sub>2</sub> e per tonne of steel cast

### **BALANCING WATER SUPPLY**

Water is one of the key resources required in the Group's day-to-day operations, and raising the efficiency of water use and preventing related environmental accidents remain priority areas.

As a part of our five-year environmental targets, we aim to achieve a 10% reduction in fresh water consumption compared to the baseline of 2016. In 2018, the total volume of fresh water consumed for production needs stood at 226.49 million m3, and in the past three years the overall decline in water withdrawn has

been 31%.1 Compared with 2017, EVRAZ fresh water consumption has fallen by approximately 93 million m3, which has occurred largely due to the exclusion of some assets2 whose fresh water consumption comprised around 63 million m<sup>3</sup>. Water intensity rate (m<sup>3</sup> of water used per tonne of steel cast) plummeted by 28.1% in 2018 and equalled to 0.014.3 Moreover, fresh water withdrawal intensity (m3 of water used per consolidated revenue) also dropped and reached the level of 17.64. compared with 29.5 in 2017.

**EVRAZ FRESH WATER CONSUMPTION FOR** PRODUCTION NEEDS, 2016-2018, million m<sup>3</sup>



<sup>1</sup> The figure comprises data on EVRAZ ZSMK (incl. Evrazruda), EVRAZ NTMK, EVRAZ KGOK, EVRAZ DMZ (sold in 2018), Raspadskaya Coal Company, Yuzhkoks (sold in 2017), Evraz Sukha Balka (sold in 2017), Nakhodka Trade Sea Port (sold in 2017), Vametco (sold in 2017), Mezhegeyugol Coal Company, Evraz Caspian Steel, Evraz Palini e Bertoli, EVRAZ Vanady Tula, Evraz Stratcor, Inc., EVRAZ Nikom, a.s., EVRAZ Inc. NA, EVRAZ Inc. NA Canada.

<sup>&</sup>lt;sup>2</sup>EVRAZ DMZ, Yuzhkoks, Nakhodka Trade Sea Port, EVRAZ Sukha Balka, Vametco.

<sup>&</sup>lt;sup>3</sup>The figure comprises data on EVRAZ ZSMK, EVRAZ NTMK, EVRAZ DMZ, EVRAZ Inc. NA, EVRAZ Inc. NA Canada.