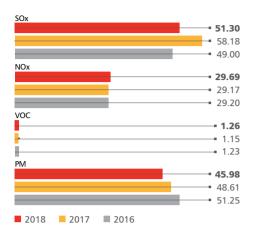


# EVRAZ KEY AIR EMISSIONS BREAKDOWN, 2016-2018, kt<sup>1</sup>



#### CLEAR AIR PROJECT EVRAZ ZSMK

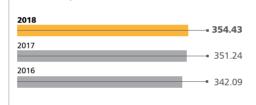
The first stage of the project was implemented in 2017 as part of a nation-wide initiative entitled Year of Ecology. By the end of 2018, EVRAZ ZSMK had introduced technological advances and implemented equipment renovation measures at sintering and central heating and power plants. By the end of 2018 total expenditure stood at US\$14.98 million, and a 18.17 thousand tonne reduction in air emissions had been achieved, EVRAZ ZSMK is committed to continuing with the renovation of its central heating and powering plant, as well as installing a closed heat exchanger for its coke and by-product processes and building off gas desulfurisation installation as part of the Ecology national project.

#### **CLEAR AIR PROJECT EVRAZ NTMK**

EVRAZ NTMK also took part in the Year of Ecology and by 2018 had performed a number of activities to improve air quality. The technical retooling of a coke dry quenching plant and construction of a new blast furnace with a modern dust and gas removal facility resulted in a 7.65 thousand tonne reduction in air emissions. Related expenditure stood at US\$14.9 million. As part of the Year of Ecology national project it is planned to continue installing blast furnaces with cleaning facilities, decommission a coke oven gas cooling tower, repair gas scrubbers, and make technical improvements to coke and by-product processes.

## **BOOSTING ENERGY EFFICIENCY**

Efficient energy use is an important component within the sustainability process. The energy intensity level of the Group's companies is the key driver behind our energy efficiency programmes and, in turn, helps us achieve our emissions reduction goal. Measures taken to boost energy efficiency include striking a balance between self-produced energy and energy purchased from suppliers, minimising energy losses during transfers, using renewable resources and waste energy, and selling any energy surpluses.



EVRAZ TOTAL ENERGY CONSUMPTION,

2016-2018, million GJ<sup>2</sup>

For more information about the energy efficiency measures being carried out across our business segments, see page 83 of the 2018 Annual report.

## **PROTECTING BIODIVERSITY**

The Group's operations do not take place in any specially protected natural reservations or areas of high biodiversity value, however, we are aware of the possible ramifications that our mining and steelmaking operations have for biodiversity in areas where we operate. We therefore aspire to cultivate a culture of fostering among our employees a proper attitude towards nature and biodiversity, as well as to environmental project management and productive communication with local communities. As part of managing biodiversity, we place a special emphasis on encouraging local initiatives from our enterprises.

The major biodiversity issues we address comprise:

- The rehabilitation of disturbed lands
  and landscaping activities
- The restoration of aquatic biodiversity
- Socio-ecological campaigns being managed jointly by municipal administrations

### Rehabilitation of disturbed lands and landscaping

EVRAZ implements a number of long-term projects that are designed to offset the environmental footprint of our activities.

- Since 2012 the Abagursky branch of EVRAZ ZSMK has been reclaiming tailing dump No. 2, with a total area of 98 hectares.
- The Raspadskaya mine is delivering a project to rehabilitate 138 hectares of land disturbed during open mining since 2015.

<sup>1</sup>The figure comprises data on EVRAZ ZSMK (incl. Evrazruda), EVRAZ NTMK, EVRAZ KGOK, EVRAZ DMZ (sold in 2018), Raspadskaya Coal Company, 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>2</sup> The figure comprises data on Steel segment (EVRAZ ZSMK (incl. Evrazruda), EVRAZ NTMK, EVRAZ KGOK, Evraz Caspian Steel, EVRAZ Vanady Tula, Evraz Stratcor, Inc., EVRAZ Nikom, a.s. and Evraz Palini e Bertoli), Steel, North America segment (EVRAZ Inc. NA., EVRAZ Inc. NA Canada), Coal segment (Raspadskaya Coal Company, Mezhegeyugol Coal Company)

Sustainability approach Employees • HEALTH, SAFETY AND ENVIRONMENT Community relations Supply chain Appendices

The year 2018 saw the completion of a project to rehabilitate disturbed land at the old EVRAZ ZSMK waste storage area. A total of 17.9 hectares was rehabilitated, 2,400 pine seedlings were planted, and the territory was transferred to the Administration of Novokuznetsk.

# Restoration of aquatic biodiversity

Ensuring that water ecosystems provide suitable habitats for various species is an integral part of EVRAZ stance on biodiversity. We are committed to implementing measures that help river species survive safely in water intake areas near our power plants.

A new fish protection device was commissioned in 2018 at the coastal pumping station in Novokuznetsk, which supplies water to the combined heat and power (CHP) plant of the West Siberian Metallurgical Plant. The new device helps prevent young fish from perishing in the water intake area on the Tom River. A two-barrier protection system ensures that largeand medium-sized fish are kept away from the water intake bucket of the pumping station using a small grid; fish are also repelled by an electric field that is created.

72,300 whitebait

fish were released into the rivers of the Kemerovo and Sverdlovsk regions in 2018

**3,500 trees** were planted by EVRAZ employees in 2018

## Socio-ecological campaigns

- Voluntary clean-ups, tree planting, building and setting up birdhouses.
- The Second Life to the Trees campaign: replanting young trees from mining allotments, where forest is to be felled.
- Big Green Games: participating in ecological clean-up contests between companies in Novokuznetsk.
- The "Clean Games" a team game involving the collection and sorting of waste from parks.
- The Clean Shores for the Rivers campaign: cleaning up coastal areas.
- The Save the Spring campaign: activities to improve the condition of springs and wells.

As a part of our social activities, EVRAZ is committed to raise the awareness of specially protected natural zones and their inhabitants among the population.

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ОГО КРАЯ

☐ For further details, see Community relation pages 54-63

**Case study** 

EBPA3

ПРИРОДА КУЗНЕЦКОГО КРАЯ

### Case study

# LANDSCAPING INITIATIVES

EVRAZ performs landscaping activities at the industrial sites and sanitary protection zones of our enterprises. As part of various environmental campaigns we plant trees in parks, squares, city streets, and territories around kindergartens. We run the Second Life to the Trees campaign, part of which involves bringing young trees from mining allotments (where forests are to be felled) and planting them in earmarked locations.

## PRAISING SIBERIAN NATURE

In 2018 EVRAZ supported the publication of a book dedicated to the nature of the Kemerovo Region. The book comprises sections on specially protected natural reservations, local nature reserves, and eco-museums and provides extensive information about the inhabitants and geographic features of the region. The book will be used in thematic workshops and environmental literacy seminars. Experts from the Novokuznetsk culture department are planning to create ecological paths and walking routes based on the book.

# **GOALS FOR 2019 AND MIDTERM PERIOD**

The Group is determined to continue our work to achieve the five-year environmental targets that have been set and to keep pace with progress made during previous periods.

A number of important projects are scheduled for final or partial completion in 2019:

- Kiln off gas system upgrade, EVRAZ Vanady Tula
- Re-heat Furnace Low NOx installation, EVRAZ Regina
- Mine water treatment unit construction (Sheregesh), EVRAZ ZSMK (Evrazruda)
- Stormwater System Upgrades, EVRAZ Portland
- Closed water cycle system upgrade, EVRAZ Vanady Tula
- Electric precipitator efficiency restoration (ZS Power Station), EVRAZ ZSMK
- Coke gas direction to by-product recovery plant №3, EVRAZ NTMK