Environment

Environmental management

EVRAZ strives to mitigate the potential environmental consequences of extracting metals and coal at its steel and mining operations. The Group's approach to effective mitigation lies in implementing best management practices and technological advances that prevent or control undesired environmental impacts and reduce the consumption of energy and natural resources.

Environmental legislation strictly regulates these operations and requires the Group to obtain environmental permits and licences. EVRAZ sites must maintain compliance with the terms of such permits and licenses for them to remain valid and be extended. This generally requires implementing certain environmental commitments, recruiting qualified personnel, maintaining necessary equipment and environmental monitoring systems, and periodically submitting information to environmental regulators. Noncompliance on any of these fronts carries the potential for the environmental permits and licences to be suspended, amended, terminated or not renewed, or could entail significant costs for the Group to eliminate or remedy any such violations.

The Group is aware of the environmental risks and liabilities of its production processes and pays increasing attention to environmental matters with a view to the prevention or minimisation of any adverse influences. The group-wide environmental procedures are part of the corporate management system, which is based on the plan-do-check-act (PDCA) model and has been developed to extend the principles of EVRAZ' health, safety and environment (HSE) policy and support the implementation of its environmental strategy. These procedures cover the process on environmental risk assessment, planning, legal compliance management, reporting, etc.

EVRAZ conducts an Environmental and social impact assessment (ESIA) for all new operations and projects, which includes consulting local and regional governments, businesses and community members in the affected area. The ESIAs evaluate any potential direct and indirect impacts that the new operation may have on the local community and surrounding environment. The ESIA process entails creating mitigation plans to minimise and manage any potential impact, as well as consulting with local communities regarding any decisions that may be made throughout the project's life.

The Group maintains compliance with the regulations on the registration, evaluation, authorisation and restriction of chemicals (REACH), as applicable for various substances that are supplied to or manufactured in the EU (European Economic Area) by EVRAZ assets. The Group supports the European Community's health and environmental goals as established in the Regulation (EC) No. 1907/2006 of the European Parliament and of the Council, which governs the REACH requirements.

The Group conducts training courses and seminars and fosters the exchange of experience in the environmental field for its environmental specialists.

The group evaluates its environmental liability and risk associated with existing sites and assets being acquired by conducting environmental audits (due diligence).

Each EVRAZ worksite has its own environmental management system built in accordance with the corporate approach. While international certification is not a legal requirement, eight of the Group's sites are currently certified to the ISO 14001 standard, including such key operations as EVRAZ NTMK, EVRAZ ZSMK and EVRAZ DMZ.

Environmental strategy

The Group's environmental strategy aims to minimise any negative impacts caused by its operations, as well as to make efficient use of natural resources and find optimal industrial waste management solutions. Environmental compliance is an overriding long-term priority.

In 2012, after determining the key challenges and focus areas, EVRAZ voluntarily adopted five-year environmental targets (over 2012-2016) aimed at:

- reducing air emissions[1] by 5%;
- decreasing fresh water consumption by 15%;
- recycling 100% of non-mining waste.[2]

By the end of 2016, the Group had met the targets set for water consumption, which was reduced by 17.3%, and recycling, with 120% of waste being recycled (exceeding the 100% target by recycling waste from prior periods). Despite the intensive programme to reduce air emissions, at the end of 2016, EVRAZ was yet to fulfil the target for air emissions, having registered an increase of 18.8% since 2011 due to higher sulphur content in the ore extracted at the Group's mines.

Environmental awards in 2017

EVRAZ
Award of the Russian Ministry of Natural Resources. For an active environmental policy

Awarding organisation:
Russian Ministry of Natural Resources

EVRAZ NTMK
Award: Leader in Environmental Management in Russia – 2017. Most ecologically responsible steelmaker

Awarding organisation:
Russia-wide Review Competition for Health and Ecology

In 2017, EVRAZ received several other national and regional awards recognising its environmental programmes.

The HSE Committee adopted new five-year environmental targets:

- decreasing fresh water consumption by 10%;
- recycling 95% of non-mining waste per year;
- maintaining the greenhouse gas intensity ratio below 2 tonnes of carbon dioxide (CO_2) equivalent (tCO_2e) per tonne of steel cast.

The Group has committed to implement various environmental protection programmes over 2018-22. As of 31 December 2017, the estimated cost to implement these programmes totalled US$102 million.

In 2017, EVRAZ spent US$30.7 million on measures to ensure environmental compliance and US$28.0 million on projects to improve its environmental performance. Non-compliance-related environmental levies and penalties were US$2.6 million. The Group's assets had no significant environmental incidents or material environmental claims during the reporting period.

[1] *Including nitrogen oxides (NOx), sulphur oxides (SOx), dust and volatile organic compounds (VOC) only.*
[2] *The rate of the amount of waste recycled or used versus annual waste generation, not including mining waste. It can exceed 100% due to recycling of waste from prior periods.*

Biodiversity

EVRAZ recognises its responsibility to prevent and minimise its potential impact on the environment and biodiversity at all stages of the mining and steelmaking process, including when performing geological surveys, designing facilities, conducting operations and restoring sites that are no longer used.

The Group's long-term goal is to foster a culture among its employees of care and concern for the environment and biodiversity of the areas in which it operates, as well as in how they implement its projects and create a positive dialogue with the local community.

EVRAZ is implementing several long-term projects aimed at remediating the impacts of past operations. Since 2011, Evrazruda's Abagursky branch has been working to reclaim 137 hectares from its old tailing field. The Raspadskaya mine is executing a project to reclaim 138 hectares of land that were disturbed by open-pit mining.

Projects aimed at restoring aquatic biodiversity such as releasing juvenile fish into local rivers.

In the spring of 2017, the "Clean Shore" campaign helped to clear debris from the protected watersheds of the Dnieper, Bolshoy Unzas, Kondoma, Maly Bachat rivers, the streambeds of the Kholodny stream and the tributaries of the Bolshoy Kaz river.

The Group has planted trees and put up birdhouses as part of its projects to restore parks and natural landscapes.

Air emissions

Reducing air emissions is one of EVRAZ' overriding environmental priorities. The key air emissions comprise nitrogen oxides (NOx), sulphur oxides (SOx), dust and volatile organic compounds (VOC). In 2017, the key air emissions increased by 4.9% compared to 2016.

The current strategy for reducing air emissions envisages upgrading gas treatment systems, introducing modern technology and eliminating obsolete equipment.

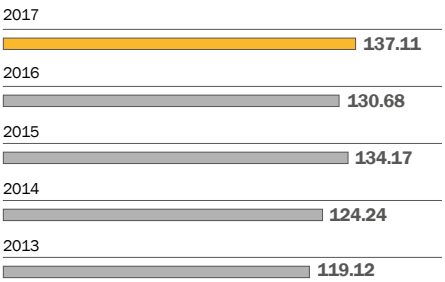
That said, the strategy to reduce air emissions has had a visible impact. The Group's VOC emissions have steadily decreased, falling by 35% from 1.7 thousand tonnes in 2011 to 1.1 thousand tonnes in 2017, (including 0.1 k tone in 2017 or 8% vs 2016) due to measures undertaken at coke production sites.

Dust emissions dropped by 8% from 2011 to 2017 including 5% in 2017 comparing to 2016.

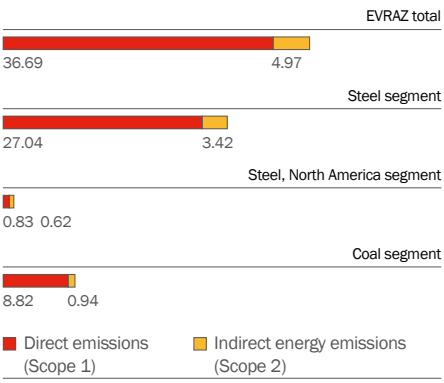
EVRAZ' NOx emissions have remained mostly stable at around 29 thousand tonnes. Yearly deviations have been related to the increased fuel consumption needed to burn out excess sulphur from ore and iron.

SOx emissions surged by 45% within the last 4 years (starting since 2013) due to the higher sulphur content in the ore which has resulted in higher SOx emissions. Following

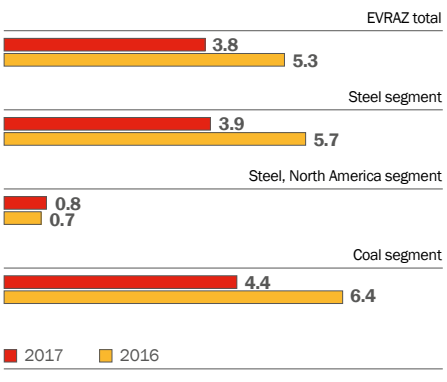
EVRAZ' KEY AIR EMISSIONS, kt



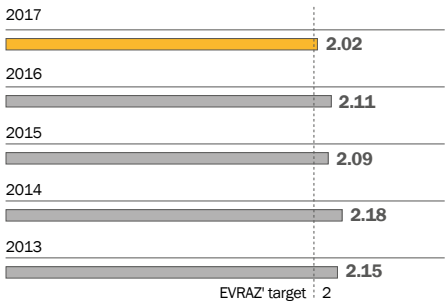
EVRAZ' GHG EMISSIONS IN 2017, million tCO_2e



GHG EMISSIONS PER NET REVENUE, kg CO_2e/US$



SPECIFIC SCOPE 1 AND 2 GHG EMISSIONS FROM THE STEEL SEGMENT (INCL. NA), tCO_2e per tonne of steel cast



that, the management has set a task to find the technology and methods to reduce these emissions from sinter production.

Greenhouse gas emissions

EVRAZ's operations generate carbon dioxide and other greenhouse gas (GHG) emissions. The Group understands that mitigating climate change risks is a crucial element in planning for the future welfare of its employees and local communities throughout its global enterprises.

The Group understands the urgency of preventing climate change and supports the global effort to reduce the emission of GHGs into the atmosphere. In compliance with the Companies Act 2006 (Strategic and Directors' Report) Regulations 2013, EVRAZ measures the full GHG emissions at its facilities and has taken part in the CDP Climate Change Programme since 2011.

A key aspect of EVRAZ' strategy is to reduce greenhouse gas emissions by consuming fewer energy resources.

The Group set a five-year target for its Steel segment to keep the greenhouse gases intensity ratio below 2 tonnes of carbon dioxide (CO_2) equivalent (tCO_2e) per tonne of steel cast.

The Group measures direct (Scope 1) emissions of all seven "Kyoto" GHGs[1] and indirect (Scope 2) emissions from the use of electricity and heat. The inventory approach[2] was based on the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (IPCC 2006) and the WRI/WBCSD GHG Protocol Corporate Accounting and Reporting Standard. EVRAZ reports data in terms of tCO_2e, calculated using the IPCC 2006 global warming potentials.

EVRAZ has collected GHG emissions data for 2017 and compared them with the 2013-2016 levels. The Steel segment continues to generate more than half of the gross GHG emissions from the Group's operations. Nearly 93% of the Coal segment's full emissions come from fugitive methane (CH4) leakage, which is caused by methane ventilation from underground mines and post-mining emissions from coal.

In 2017, the overall GHG emissions from EVRAZ' operations increased by around 2% year-on-year. Emissions of CO2 fell by 1.34% (or 0.386 million tCO_2e) due to reduced concentrate consumption at EVRAZ ZSMK and lower coal consumption at EVRAZ NTMK, as well as to the cease in operations at several mills in Russia, Ukraine and South Africa during the reporting period. In the Coal segment, CH_4 emissions rose by 18% due to higher methane emissions from the coal mined.

In 2017, EVRAZ increased its Scope 1 emissions by 2% and brought down its Scope 2 emissions by 1%. The former was due to an increase in methane emissions, which accounted for some 3% of total emissions, while the latter was due to the cease in operations at several mills in Russia, Ukraine and South Africa.

EVRAZ reports an intensity ratio relating its annual GHG emissions to its activities: total Scope 1 and 2 emissions per consolidated revenue for the Group overall and each operating segment and specific emission in the steel segment per tonne of steel cast for 2013-2017 (see graphs).

The averege specific emissions of World Steel Association members is 1.9 tCO2e per tonne of steel cast as of 2016. EVRAZ specific GHG emissions in the steel segment is higher due to the key role played by integrated iron and steel works (which inherently emit more GHGs than rolling mills).

EVRAZ' GHG EMISSIONS, million tCO_2e

	2013	2014	2015	2016[3]	2017
Direct (Scope 1)	**42.92**	**39.05**	**36.87**	**35.81**	**36.69**
— CO_2	33.78	31.08	29.13	28.76	28.37
— CH_4	9.06	7.89	7.67	6.99	8.26
— N_2O	0.08	0.08	0.07	0.07	0.06
— PFC and HFC	0.0002	0.0002	0.0002	0.0001	0.00003
— SF_6	–	–	–	–	–
— NF_3	–	–	–	–	–
Indirect (Scope 2)	**8.05**	**7.96**	**6.17**	**5.02**	**4.97**
Total GHG emissions	**50.97**	**47.00**	**43.04**	**40.83**	**41.67**

[1] *Carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC) and perfluorocarbons (PFC), sulphur hexafluoride (SF_6) and nitrogen trifluoride (NF_3).*

[2] *The inventory of emissions includes all entities that EVRAZ controls. Entities that were disposed of during the year were included for the period they were part of the Group. Only entities that were deemed immaterial for consolidated emissions based on their operational indicators were omitted. Direct CO_2 emissions from operations were calculated using the carbon balance method for carbon flows within production facilities, including fuel use. Emissions of other GHGs were calculated based on measured volumes, inventory changes or IPCC 2006 factors and models (including for post-mining coal methane emissions) where direct measurement data were not available. Indirect emissions were estimated using emission factors specifically developed for the country or region, if available, or otherwise factors provided by UK Defra.*

[3] *The results for 2016 were recalculated due to improvements in data quality and several identified inaccuracies regarding material flows, which resulted in a downward correction of 0.15 million tCO_2e for Scope 1 emissions.*

Water consumption and discharge

EVRAZ strives to make efficient use of water resources and prevent any negative water quality impacts through environmental incidents.

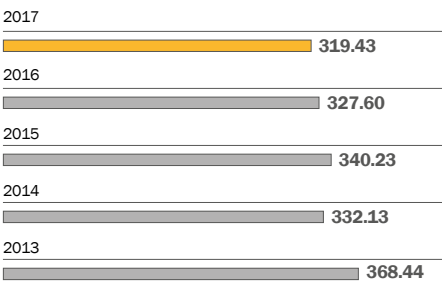
In 2017, almost 85% of the Group's total water intake came from surface sources, including rivers, lakes and reservoirs, up 1 percentage point year-on-year.

During the reporting period, the ongoing programmes to improve the water management at EVRAZ' operations continued to deliver environmental benefits. In 2017, the Group consumed 8.2 million cubic metres less fresh water than in 2016, for a year-on-year reduction of 2.5%.

In 2017, the management decided to continue its water management programs and set a new five-year target to decrease fresh water consumption by 10% compared with the baseline of 2016.

While water pumped from mines (dewatering) is not included in the fresh water consumption target, pumped water is partly used for technological needs. In 2017, EVRAZ pumped out and used 21.15 million cubic metres of mine water, compared with 20.3 million cubic metres a year earlier.

EVRAZ' FRESH WATER CONSUMPTION FOR PRODUCTION NEEDS,
million cubic metres



Waste management

Mining and steelmaking operations produce significant amounts of waste, including the surplus rock, spent ore and tailings left over after processing ore and concentrates. EVRAZ aims to reduce the amount of waste that it produces, re-use natural resources where possible and dispose of waste in a manner that minimises the environmental impact and maximises operational and financial efficiency.

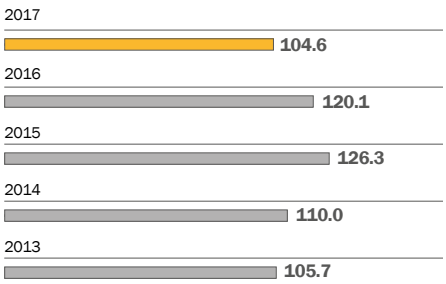
In line with the Group's strategy to reduce waste storage volumes and enhance waste disposal, EVRAZ' operations regularly review opportunities to recycle and re-use waste.

The main waste by-product that gets recycled is metallurgical slag, which includes materials that previously had been disposed of in dumps. Processing this waste has allowed the Group to maintain a recycling rate of more than 100%. Most of the old slag in these dumps has been processed over the past few years, which is the primary reason why the recycling rate went down in 2017.

Since 2013, the Group's strategy has been to avoid generating waste by applying technology to minimise waste at the source. During the past five years, more than 50% of what used to be classified as waste has been re-introduced to the production process or used as a by-product instead of being disposed as waste.

In 2017, EVRAZ' steel mills generated 9.22 million tonnes of metallurgical waste and by-products, including slag, sludge, scale and others, and recycled or re-used 9.67 million tonnes of material. Overall, the Group recycled or re-used 104.7% of non-mining waste and by-products in 2017, compared with 120% a year earlier.

RECYCLING RATE, %



The Group reviewed its waste management activities. Its existing programmes have helped to reduce the generation of hazardous waste and decrease the volume of disposed waste. The management has decided to continue its waste minimisation efforts and set a target to reuse or recycle at least 95% of waste.

EVRAZ' strategy for dealing with non-hazardous mining wastes, such as depleted rock, tailings and overburden, is to use them where possible for land rehabilitation and the construction of dams or roads. In 2017, 29.7% or 50.4 million tonnes of such waste material were re-used, compared with 18% or 28.6 million tonnes in 2016.

All non-recyclable waste is stored in facilities that are designed to prevent any harmful substances contained in the waste from escaping into the environment. Safety at such facilities is monitored extremely closely, and steps have been taken to mitigate as far as possible any danger to third parties in an emergency.

WASTE MANAGEMENT STRATEGY