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

REDUCING EMISSIONS

Greenhouse gas emissions

Mining and steel-making processes produce CO₂ and other greenhouse gases emissions. The Group recognises the need to mitigate against the consequences of climate change and to lessen related risks, and supports global programmes to reduce greenhouse gas emissions. In accordance with the requirements of the Companies Act 2006, (Strategic Report and Directors' Report - Regulations 2013), EVRAZ conducts a full assessment of greenhouse gas emissions at all companies and has participated in the Climate Change Adaptation Programme since 2011. The central pillar of EVRAZ strategy to reduce emissions is achieving a decrease in resource consumption and greater energy efficiency.

To achieve this, in 2018 the Group set a fiveyear target for its steel and steel-products making operations (Steel segment and Steel, North America segment account for 76.15% of total GHG emissions in 2018) to maintain GHG intensity ratio below two tonnes of CO_2 equivalent (t CO_2 e) per tonne of steel cast. In 2018 this ratio almost reached the target level totalling 2.005 t CO_2 e. Operations in the Coal segment produced 23.85% of total GHG emissions in 2018, as a result of fugitive methane (CH₄) leakage, caused by methane ventilation from underground mines and postmining emissions from coal.

As of December 2018, the overall GHG emissions of the Group had fallen by 6.86% year-on-year due to operations ceasing in Ukraine and lower volumes of underground mining against the higher open pit mining.

Scope 1 emissions generated by EVRAZ reached 34.6 million tCO_2e , 5.8% less than in the previous period. Scope 2 emissions totalled 4.2 million tCO_2e , demonstrating a decrease of 14.9%.

EVRAZ SCOPE 1 AND 2 EMISSIONS,

 $\textit{million tCO}_2e^{\textbf{2}}$



APPROACH TO ACCOUNTING GHG EMISSIONS

EVRAZ measures direct emissions of all seven GHGs stated in the Kyoto Protocol (Scope 1), as well as indirect emissions linked to the purchased electricity and heat (Scope 2). The inventory approach is based on the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (IPCC 2006) and the WRI/WBCSD GHG Protocol Corporate Accounting and Reporting Standard. We report GHG emissions for both scopes expressed in tCO_2e , calculated using the IPCC 2006 global warming potentials.

EVRAZ MAIN SCOPE 1 EMISSIONS, million tCO₂e³



CO₂ emissions, million tCO₂e

CH₄ emissions, million tCO₂e

GHG EMISSIONS PER CONSOLIDATED REVENUE, kg CO₂e/US\$



2018 2017

EVRAZ KEY AIR EMISSIONS, 2016-2018, kt4



The Group reports the GHG intensity ratio per consolidated revenue, broken down by the operating segments, as well as specific Scope 1 and Scope 2 GHG emissions from the Steel segment per tonne of steel cast (see page 79 of Annual report).

Air emissions

Reducing air emissions is vital in order to combat air pollution. Taking into consideration the interests and expectations of our stakeholders, we pursue a comprehensive strategy to ensure that technological improvements are made that will facilitate a reduction in emissions. We regularly upgrade gas treatment systems and replace obsolete equipment with modern systems.

The key air emissions generated by the Group comprise nitrogen oxide (NOx), sulphur oxide (SOx), dust, and volatile organic compounds (VOC). These demonstrated a year-to-year decline of 6.5% in the reporting period.

The Group also strives to reduce CO (carbon monoxide) emissions as the part of its sustainable transition and implements national projects at EVRAZ NTMK and EVRAZ ZSMK sites enhancing this reduction. In 2018, CO emissions within the whole Group reached the level of 285.94 kt showing a decrease of 8.1% compared with 2017.

² The figure comprises data on the following greenhouse gases: CO₂ CH_a, N₂O, SF_a HFC+PFC for Scope 1 emissions. The figure comprises data on companies included in Appendix 3. ³ Other GHG excluded due to their insignificance in the total emissions volume.

⁴ 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.



EVRAZ KEY AIR EMISSIONS BREAKDOWN, 2016-2018, kt¹



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 GJ²

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.

¹The 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.

² 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)