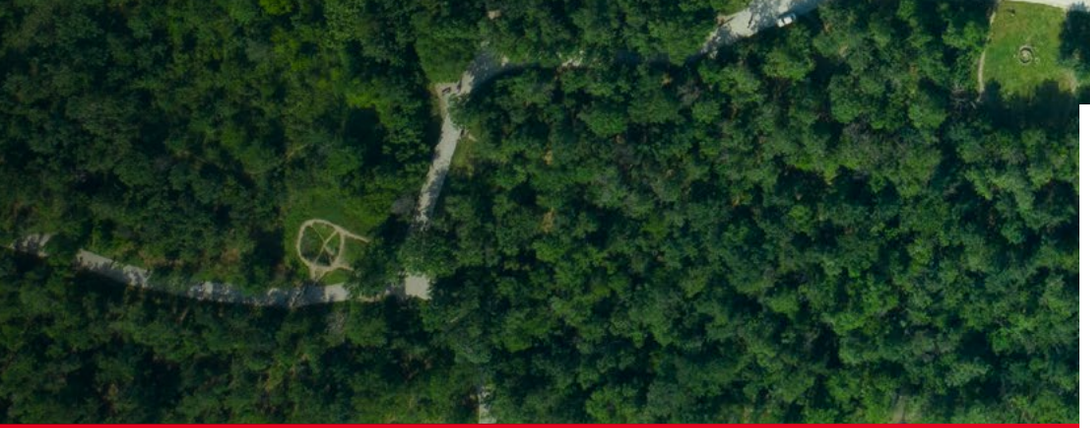
Environmental Action



KEY 2020 RESULTS AND EVENTS

Metinvest spent US$450 million on environmental protection measures, an increase of 17% year-on-year

Ilyich Steel completed core works on the gas cleaning system upgrade at its sinter plant, which is part of a multi-year initiative entailing total investments of more than US$160 million

The Group's assets decreased the volume of water intake and water discharge by 4% and 3% year-on-year, respectively

Metinvest increased total energy savings by 7% year-on-year

In this section:

Our Approach and Strategy

STRATEGIC VISION

It is essential for Metinvest to comply with environmental requirements at each stage of the production process. We believe that the long-term efficiency of our business is directly dependent on environmental sustainability. We focus our efforts on minimising our environmental impact and supporting actions to tackle climate change.

The Group's key environmental principles include complying with legislative requirements, implementing rational natural resource management policies, introducing more environmentally friendly production methods and establishing multi-level systems to control its environmental impact.

Our strategic vision on environmental protection is based on the following priorities:

- prevention and reduction of environmental impact, including improvement of air quality, responsible waste treatment and water management;
- contribution to global fight against the climate change;
- preservation and efficient use of raw materials and energy resources in the production process;
- effective environmental monitoring and assessment of any kind of environmental impact;
- preservation of natural landscapes and biodiversity.

Metinvest implements programmes designed to ensure environmental safety at all its operations and develops targeted measures to optimise them. Among our key environmental programmes are initiatives that apply state-of-the-art technology to reduce and eliminate atmospheric emissions, increase energy efficiency, treat wastewater, recycle waste and reclaim waste storage sites.

Following the ratification of the Association Agreement between Ukraine and the EU, our production assets began to assess the future technological requirements and methods for reducing environmental impact that will need to be introduced in line with Directive 2010/75/EU, as well as Directive 2003/87/EU.

GRI 103-2; GRI 103-3

ENVIRONMENTAL MANAGEMENT APPROACH

Metinvest's approach to environmental impact management is outlined in its Policy and Principles in the Field of Health, Safety and the Environment. We engage managers at all levels to improve the environmental management system at our assets. To ensure that our policies and procedures remain relevant, we plan to revise them and expand the topics of climate change and biodiversity.

Our environmental protection goals are overseen at several governance levels, from the Supervisory Board and its Health, Safety and Environmental Committee to the dedicated function at the Executive Team level and responsible units at the Group's assets.

At the highest level of Metinvest's corporate governance, the Supervisory Board's Health, Safety and Environmental Committee provides strategic oversight of the Group's environmental investments, as well as its regulatory compliance and risk management.

The environmental function within the Group's Sustainable Development and People Management directorate has the following key duties: ensuring compliance with legislative requirements; assessing risks and conducting internal environmental audits; monitoring and registering GHG emissions; assessing product life cycles; creating automated systems for storing and processing environmental information; developing strategies and concepts for reducing the impact of production assets on air, water, land resources and biodiversity; and assessing climate change impact.

At the production asset level, each quarter, members of the senior management discuss key issues related to environmental impact. They also take decisions regarding the implementation of relevant projects and the modernisation of equipment to achieve strategic objectives and priorities. The major criteria for assessing implementation efficiency is the expedience of decisions taken and achievement of targets set.

In 2021, Metinvest plans to integrate environmental KPIs for employees occupying the relevant positions to increase their involvement in environment protection measures.

In 2020, Metinvest continued to evaluate its assets for compliance with the requirements of the ISO 14001 international standard. At the end of the reporting period, 12 Group assets[1] had certified the compliance of their environment management systems under ISO 14001:2015.

ENVIRONMENTAL MONITORING

To assess its environmental impact, Metinvest conducts regular internal audits in cooperation with certified laboratories and accredited institutions. These audits cover the assets' production activities, efforts to reduce air and GHG emissions, use of water resources, compliance with quality standards and waste management initiatives.

This helps us to assess the compliance of production processes with the approved policies, standards and environmental legislation; evaluate the efficiency of projects to modernise production processes and equipment; and update the environmental risk map to ensure that we achieve our objectives. The Group's assets have dedicated teams that monitor environmental protection metrics and initiatives. Some assets have established specialised laboratories for this purpose. For example, Avdiivka Coke operates a laboratory that analyses water and air quality by monitoring three control groups: air emissions, water resources, and waste and land conditions.

This systematic approach to tracking our environmental impact helps to ensure that our operations comply with regulatory requirements and fulfil our environmental protection objectives.

SUPPORTING OPEN DIALOGUE

We maintain a consistent dialogue with stakeholders on the issues of environmental safety. This allows us to track the efficiency of decisions taken and measures implemented and to update our environmental risk map.

In the spirit of transparency and accountability, Metinvest arranges meetings, press conferences and roundtable discussions about environmental issues with representatives of the public, media, volunteer groups and non-governmental organisations (NGOs) and involves its management and the executive officers of assets in these initiatives. Metinvest also participates in the World Steel Association's Environment Committee, where we share our experience and the most effective industry practices and achievements as well as learn best practice.

Any direct complaints about environmental matters may be submitted via the Trust Line, an official channel through which they are automatically registered in an integrated incident management system. Subsequently, they are analysed, reviewed and transferred to a responsible unit, which promptly takes the necessary action.

1 This includes Azovstal, Central GOK, Ferriera Valsider, Ilyich Steel, Ingulets GOK, Mariupol Machining and Repair Plant, Metinvest Holding, Metinvest Trametal, Northern GOK, Promet Steel, Spartan UK and Unisteel. Metinvest-Promservice and Zaporizhia Coke are planning to update their certifications in 2021. Following its merger with Inkor Chemicals, Avdiivka Coke is considering the possibility of joint certification.

Addressing Climate Change

Climate change is a challenge facing the entire global community. Supporting the fight against climate change is one of the most important tasks for Metinvest. In 2020, we singled out UN Sustainable Development Goal (SDG) 13 – "Take Urgent Action to Combat Climate Change and Its Impacts" – as one of our priorities for sustainable development.

Our approach includes working to enhance community awareness of GHG emissions, engage with industry associations and support open dialogue with our stakeholders on climate change to find opportunities for joint research and development initiatives in this area.

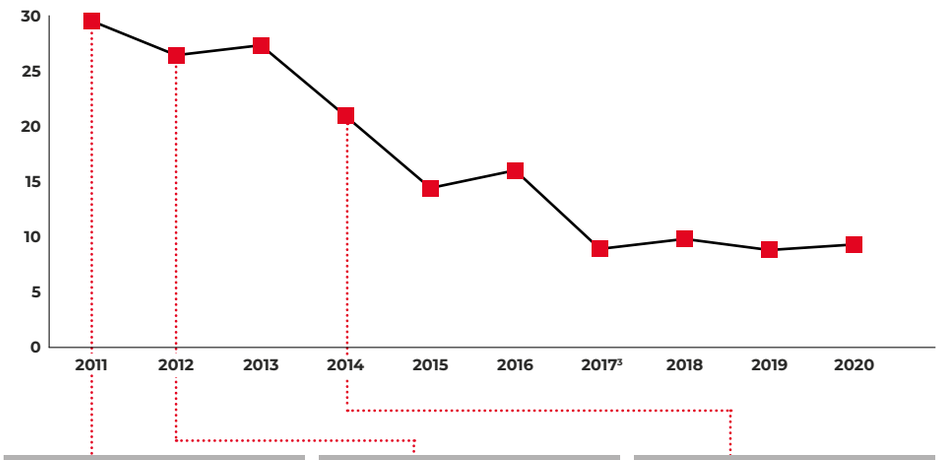
The Group pays significant attention to Ukrainian climate change policies, development and implementation. This includes such areas as fulfilling the Association Agreement between Ukraine and the EU, reforming Ukrainian legislation to comply with the EU legal framework, updating Ukraine's Nationally Determined Contribution under the Paris Agreement, and determining the best way for Ukraine to implement the European Green Deal initiatives.

Metinvest is engaged in a dialogue on these issues with the Ministry of Environmental Protection and Natural Resources of Ukraine and other central executive bodies. This takes place both directly and as part of industry associations such as the European Business Association, Ukrainian Business and Trade Association, and Ukrmetalurgprom Association of Enterprises.

We continue to contribute to the fight against climate change. In the past decade, the Group has made significant iterative progress in reducing the volume of its GHG emissions. For example, from 2011 to 2020, its annual direct GHG emissions (calculated for each installation in line with methodologies applied by local regulators) declined from 29.5 million tonnes to 9.3 million tonnes of CO_2 equivalent.

Metinvest aims to sustain a trend of meaningful, incremental reductions in the GHGs that it emits. The Group is working to develop a long-term decarbonisation roadmap, backed by clear targets and technological tasks. The key focus will be on the steelmaking and coking assets, as the largest contributors to GHG emissions.

Direct GHG emissions in CO_2 equivalent in 2011-20, million tonnes[2]



2011
Azovstal shuts open-hearth furnaces

2012
Azovstal closes obsolete sinter plant and three coke batteries

2014
Ilyich Steel closes open-hearth furnaces

In 2020, Metinvest's US coking coal mining asset United Coal launched a methane decomposition and mine sealing project. To reduce GHG emissions, a methane abatement unit was installed and 970 acres of old mines were sealed. In 2020, 12,494 tonnes of methane were abated.

2 The Scope 1 data for the Group's Ukrainian assets in this chart has been prepared using GHG emissions measurement and reporting methodologies in place under Ukrainian law prior to 1 January 2021.
3 In 2017, Metinvest lost control over assets in the temporarily non-government controlled territories of Ukraine (including a vertically integrated steelmaker with an annual crude steel production capacity of 2.7 million tonnes).

NEW DISCLOSURES ON GHG EMISSIONS[4]

As of 1 January 2021, the way in which the Group calculates its GHG emissions changed, following the adoption of Ukraine's new Law "On the Principles of Monitoring, Reporting and Verification (MRV) of Greenhouse Gas Emissions", which is aligned with the EU approach. It amends the methodology used to calculate CO_2 emissions (a major part of GHGs for Metinvest), using the full carbon balance at an installation's input and output points.

Previously, calculations were based on the emission rates of relevant substances under the terms of the permits issued for an installation by the Ministry of Environmental Protection and Natural Resources of Ukraine.

In 2020, we analysed the impact that this new calculation methodology would have and took steps to prepare the information needed to report the required indicators. We examined the material flows of carbon-based raw materials, fuel, products and waste that are transported to and from our assets; and assessed possible changes in GHG emission volumes after moving to the new methodology.

Metinvest understands how important GHG data disclosures is for its stakeholders. The Group is obliged to report new data for 2021 in 2022. For reasons of accountability and transparency, historical figures presented in this report have been proactively recalculated to ensure comparability between reporting years and with other similar mining and metals companies. While the adjusted methodology has resulted in an increase of the Group's GHG emissions, this is not due to a change in operations.

In addition, although not required by the MRV framework, we calculated direct Scope 1 GHG emissions from mobile sources and indirect Scope 2 GHG emissions associated with Metinvest's electricity purchases in accordance with the Greenhouse Gas Protocol standard. We are disclosing these indicators, for the first time, to be more transparent about our environmental impact and in line with the best international practice.

The Scope 2 GHG emissions were calculated using the location-based method. As Metinvest generally purchases electricity from electricity traders, this approach reflects the average emissions intensity of power grids on which energy consumption occurs (using mostly grid-average emission factor data).

In 2020, Metinvest's Scope 1 GHG emissions increased by 3% year-on-year. This was primarily because hot metal production climbed by 7% and steel output by 9% year-on-year at the Group's Mariupol steelmakers. Another factor was the increased operation time of the heat-treating furnaces and boilers of combined heat and power plants at these facilities.

Scope 2 GHG emissions remained almost the same in 2020 compared with 2019, as there was no significant change in Metinvest's electricity consumption.

The Group also calculated the direct GHG emissions intensity of its Mariupol steelmakers, as the greatest emitters of such emissions, and is disclosing this for the first time. It was calculated as tonnes of CO_2 equivalent per tonne of crude steel. As Metinvest is a vertically integrated company and is self-sufficient in core raw materials for steel production, only those material flows directly used in steelmaking processes were taken into account, while volumes of merchant pig iron were not included.

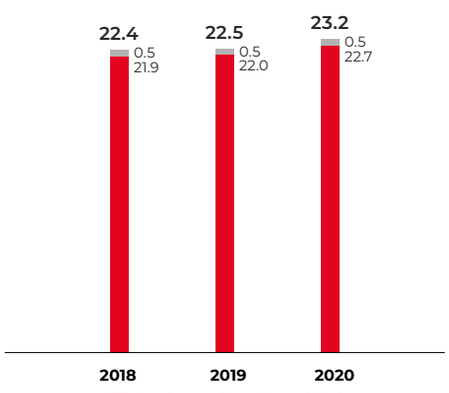
The GHG emissions intensity of the Mariupol steelmakers is in line with the intensity typical for vertically integrated steelmakers, which have similar production facilities as the Group.

Importantly, there is a clear downward trend in Metinvest's GHG intensity. This is being mainly driven by the alterations in blast furnace utilisation at Azovstal since mid-2019 when blast furnaces nos. 5 and 6 were shut down and replaced by the modernised and highly efficient blast furnace no. 3.

The external reputable expert was involved in recalculation of GHG emission indicators. New data will help us to set clear goals on decarbonisation and climate change risk reduction, as well as help our stakeholders to assess Metinvest progress in this area.

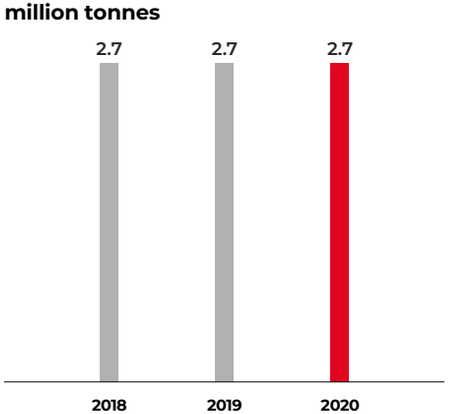
GRI 305-1

Direct GHG emissions in CO_2 equivalent (Scope 1), million tonnes



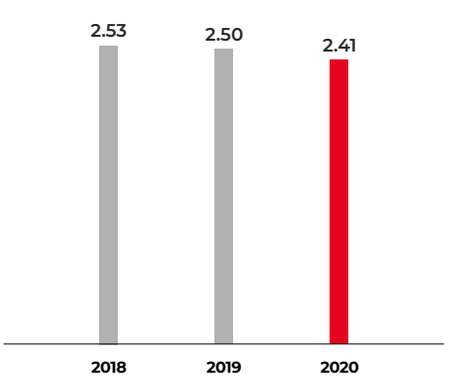
GRI 305-2

Indirect GHG emissions in CO_2 equivalent (Scope 2)[7], million tonnes



GRI 305-4

Direct GHG emissions intensity, tonnes of CO_2 equivalent per tonne of crude steel[8]



4 The only material greenhouse gas emitted by Metinvest is CO_2. Therefore, all references in this section to GHG emissions refer to CO_2 emissions.
5 Scope 1 stationary GHG emissions for the Group's Ukrainian assets are based on the new calculation methodology under Ukraine's Law "On the Principles of Monitoring, Reporting and Verification of Greenhouse Gas Emissions", which took effect in 2021. These data cannot be used for the purposes of taxation or other withholdings.
6 Scope 1 mobile GHG emissions are calculated in accordance with the Greenhouse Gas Protocol. These data cannot be used for the purposes of taxation or other withholdings.
7 Scope 2 indirect GHG emissions are calculated in accordance with the Greenhouse Gas Protocol. These data cannot be used for the purposes of taxation or other withholdings.
8 Calculation is based on Scope 1 from stationary and mobile GHG emissions of the Group's Mariupol steelmakers.

Energy Efficiency

GRI 103-2

The Group continuously works to increase the energy efficiency of its assets in order to reduce their environmental impact and tackle climate change. We apply innovative solutions to optimise our consumption of energy and natural resources. Our priorities in this area include implementing energy saving programmes and energy service projects, increasing the amount of electricity that we generate internally, reducing the energy intensity of our products and replacing natural gas with biofuel.

We have a dedicated division in the Operational directorate at the Executive Team level, as well as energy management and energy efficiency departments at each production asset that are responsible for planning and controlling energy resource consumption in production. They are also responsible for introducing energy efficiency measures aimed at reducing consumption to the levels outlined in target performance indicators and energy saving programmes.

Since 2013, we have been developing energy management systems at our production assets that conform to the ISO 50001:2011 international standard. As of the end of 2020, 10 assets[9] transferred to the new ISO 50001:2018 standard for energy management systems, which introduced the concept of risk assessment in energy. The procedure defines a technique for risk identification, measurement and management in the energy management sector to mitigate risk factors and prevent situations that adversely impact performance.

When assessing energy risks, Metinvest monitors the factors that affect the energy performance of business units and updates its risk matrix on an annual basis. The matrix reflects all threats to the energy management system and helps to determine why and how often they appear, assess the extent of their impact, make recommendations to mitigate them, evaluate the associated risks, and select appropriate measures to eliminate or minimise them.

GRI 103-3

Metinvest's assets have passed an external certification audit designed to assess the workflow management system for compliance with the ISO 50001 standard governing the use of energy resources and efficiency initiatives. We also conduct internal energy management audits based on a matrix and system that we developed to assess the efficiency of the certification requirements that we implemented. Performing energy audits is the responsibility of the energy saving committee and energy management teams at each production enterprise. Such audits help to determine areas for improving energy efficiency and shape key goals for annual energy saving programmes.

In 2020, the Group's assets underwent scheduled audits by the internal energy management teams of all business units. These checks are performed in line with our Procedure for Conducting Internal Energy Management System Audits at Production Sites, which lays out the requirements for the audit team composition, the format and frequency of inspections, and reporting procedures. The Methodology for Conducting Energy Audits at Production Sites serves as an additional tool to search for energy efficiency measures.

9 Avdiivka Coke, Azovstal, Central GOK, Dnipro Coke, Ilyich Steel, Kryvyi Rih Machining and Repair Plant, Mariupol Machining and Repair Plant, Northern GOK, Zaporizhia Coke and Zaporizhia Refractories.

METINVEST'S ENERGY MANAGEMENT SYSTEM

Technical measures:

- Equipment and supply line repair and inspection
- Fleet renewal
- Equipment modernisation and design changes
- Accounting system development

Technological measures:

- Raw material and product quality management
- Furnace charge management
- Technological optimisation
- Process automation

Operational measures:

- Development of differentiated standards
- Rate setting, deviation analysis and development of respective measures
- Development of optimisation models for operator prompts
- Optimisation of technological modes and equipment operation
- Operational management of energy balances
- Introduction of ISO 50001 and regular audits
- Cross-functional groups and energy audits

GRI 302-1

In 2020, the direct energy consumption of Metinvest's assets as measured in terajoules (TJ) increased by 2% year-on -year. This was caused by an increase in the production of both pulverised coal fuel and steel at Ilyich Steel, as well as the consolidation of two assets that joined the Group: Dnipro Coke and Zaporizhia Refractories.

Direct energy use, TJ[10]

Year	Natural gas	Heating oil	Coke	Diesel fuel	Petrol	Metallurgical coal	Electricity	Total
2018	38,452	0	102,355	6,258	73	34,165	28,637	**209,940**
2019	36,922	0	93,196	6,534	61	37,658	30,308	**204,679**
2020	38,656	14	91,801	6,640	47	42,444	29,509	**209,111**

GRI 302-4

In 2020, Metinvest continued to develop and implement energy efficiency projects. This contributed to an increase in energy saving by 7% year-on-year, including increase in electricity saving by 5% year-on-year. The main savings came from Azovstal, which was able to produce an additional 54 million kWh of electricity internally after repairing the turbine at its power station that produces electricity and compressed air for blast furnaces, thereby reducing the need for third-party purchases. An additional improvement in electricity saving came from Ilyich Steel optimising the cut of slabs at its hot strip mill 1700.

During the reporting period, Metinvest also implemented other energy efficiency measures at its assets. Avdiivka Coke introduced a flexible switching system for turbine generators with lower specific steam consumption and replaced the electric pump unit. This made it possible to generate 4.3 million kWh of electricity internally, which eliminated the cost of purchasing it from third parties.

Azovstal modernised the ceiling lighting at its heavy plate shop and upgraded the brickwork in rotary kilns nos. 1 and 4 to increase the speed of limestone heating.

Ilyich Steel installed energy efficient centrifugal compressors in its heat and power department, which made it possible to save 3.3 million kWh of electricity during the reporting period. It also installed dual-layered cast insulation on its skid pipes, which helped to reduce natural gas consumption by 3.4 million cubic metres.

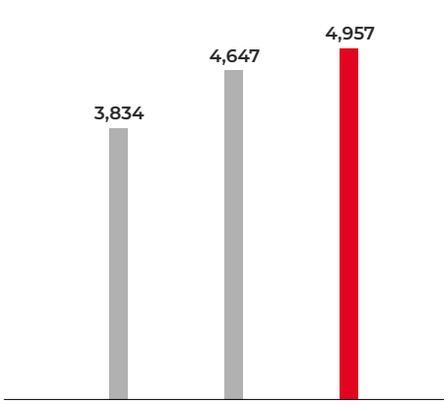
Northern GOK installed more efficient lighting systems at crushing plant no. 1 and pellet shop no. 1, which reduced electric power consumption by 4.4 million kWh. It also replaced the insulation of the gas ventilation pipe on the Lurgi 552-A roasting machine, which helped to cut natural gas consumption by 0.2 million cubic metres.

Central GOK reduced its electricity consumption by 11.4 million kWh. This was the result of re-equipping the magnetic separators at its beneficiation plant, as well as modernising the classification system for middlings, the lighting systems at production facilities in the beneficiation plant and the electrical drive system of excavators. It also reduced its natural gas consumption by 4.5 million cubic metres as a result of using shredded sunflower husks as an alternative fuel for pellet production.

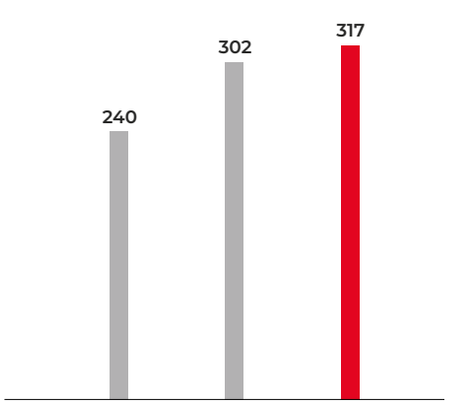
Separately, the Zaporizhstal joint venture cut the volume of electricity purchased from third parties by 8.8 million kWh and reduced its natural gas consumption by 5.1 million cubic metres. These significant decreases were the result of increased electricity generation at turbine generator no. 2 (combined heat and power plant) and the use of secondary gas as a replacement for natural gas in lime kiln.

The Group achieved additional energy savings by increasing the efficiency of secondary fuel use, modernising fuel-consuming equipment and improving the efficiency of heat-exchange and compressor equipment, as well as modernising the slurry pumps and pipeline transport systems at Metinvest's assets.

Total energy saved as a result of energy efficiency measures, TJ



Electricity savings, million kWh



10 The coefficient used for conversion from TOE to TJ is 1 TOE = 0.0293076 TJ. The direct energy use data for 2018-19 that was presented in the 2019 sustainability report has been restated for the 2020 report to account for changes in Azovstal's data (use of electricity, diesel and petrol, coke and metallurgical coal). The key changes were as follows:
– Previously, electricity consumption was recorded in accordance with the statistical reporting, which did not reflect direct use, as it did not take into account internally generated energy and internal losses.
– The metallurgical coal consumption data previously included coal used as raw materials for producing coke and coke by-products. It now only includes coal used as fuel, which in turn decreases the figures for metallurgical coal use and increases those for coke used as fuel compared with the previously published data. In addition, the updated metallurgical coal figures exclude the coal used for producing coke by-products for sale.

During the reporting period, Metinvest spent US$8.2 million on energy efficiency programmes, which exceeded the previous year's figure by US$1.3 million. This was due to the increased number of energy-efficient LED lamps installed at Northern GOK's workshops, as well as measures introduced at Mariupol Machining and Repair Plant, such as modernising the reheating furnace and heat-treatment furnaces in the foundry shop and replacing the electric transformer in the electric furnace.

In 2021, Metinvest will continue its efforts to improve energy efficiency. Priorities include the energy efficiency programmes at its assets, energy service projects, reallocation of equipment loads to periods with lower electricity costs, modernisation of lighting systems, installation of frequency regulators, modernisation of reheating furnaces, replacement of natural gas with sunflower husks as a fuel source, modernisation of compressor equipment and generation of more electricity internally.

Energy Service Projects

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

In 2020, Metinvest signed an agreement with YASNO Energy Efficiency LLC (YASNO) to continue implementing the energy efficiency projects at the Group's assets that were launched in 2018. The basic project mechanism is unchanged. YASNO invests its own funds to implement energy efficiency projects for Metinvest on a turn-key basis under energy service contracts that guarantee energy savings. Metinvest pays for the services provided by means of the economies achieved.

In the reporting period, we worked with YASNO to implement five energy service projects. They included the upgrade and replacement of the lighting systems at Ilyich Steel and Northern GOK, as well as the installation of a new compressor station at Central GOK's Ordzhonikidze mine.

The estimated annual energy savings from the projects being implemented is 16.6 million kWh.

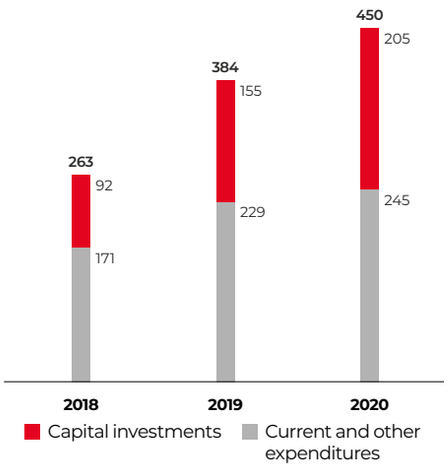
"By implementing energy service projects, we continue to improve the plant's operating efficiency. This will be also guaranteed under the agreement between Metinvest and YASNO."

Taras Shevchenko, General Director of Ilyich Steel

Environmental Modernisation

In 2020, Metinvest spent US$450 million on environmental protection measures, including modernising production processes to reduce emissions, conserve resources and increase energy efficiency. Of the total amount, US$205 million was allocated for capital investments, an increase of 32% year-on-year.

Total environmental spending, US$ million



Implementing the Environmental Programme

In 2020, representatives of Ilyich Steel and Azovstal presented a report on the fulfilment of the environmental modernisation projects under the "Programme to Protect and Enhance the Natural Environment of Mariupol 2012-20". During this nine-year period, the metallurgical assets of Mariupol implemented more than 40 major environmental projects.

- Azovstal decommissioned a sinter plant, coke batteries nos. 5, 6 and 7, and blast furnaces nos. 5 and 6, modernised blast furnace no. 3, and overhauled blast furnace no. 4. It also replaced the electrostatic cleaning plant and modernised the aspiration system of mixers nos. 1 and 2 and the dust-cleaning unit.

- Ilyich Steel decommissioned the soaking pits at its hot strip mill 1700 and assembled and put into operation a nitrogen dust suppression system at its blast furnaces. It also completed the initial scope of the environmental modernisation of the sinter plant, constructed an aspiration system in the casthouse of blast furnace no. 3 and modernised the gas treatment systems of BOFs nos. 1, 2 and 3.

In addition, both assets stopped using obsolete open-hearth furnaces, which had a significant negative environmental impact.

In Kryvyi Rih, the Group's iron ore assets continued the systematic implementation of the programme to protect air quality, preserve water and land resources, and make rational use of production waste. The key initiatives include: using trinitrotoluene (TNT) free explosives and peat-hydroxide reagents in open-pit mines; systematically irrigating open-pit mine faces, haul and municipal roads; renovating and performing capital overhauls of gas treatment equipment; and applying innovative polymeric material-based substances to bind the loose sand in tailings storage facilities

Separately, in 2020, Zaporizhstal, a joint venture received an award "For Consistency in Applying Environmental Modernisation under Sustainable Development Principles" at an event organised by the Ukrainian expert organisation Ecobusiness Group as part of the ECO Transformation Project. Ecobusiness Group recognised the entity's comprehensive approach to green production as enabling the best major industrial transformation in the industry. It included projects aimed at improving the air quality and reducing the load on water and soil resources; modernising and constructing new aspiration systems in sinter and blast furnace shops; building a new pickling line with a dipping solution recovery unit; and introducing units for processing metallurgical production waste.

"Metinvest applies a deliberate, systematic approach to the environmental initiatives that it implements at its operations. We are confident that Metinvest's environmental programme will generate new possibilities for our city and create more comfortable living conditions for the residents of Mariupol."

Serhiy Zakharov, Deputy Mayor of Mariupol

Mitigating Impact on Air Quality

Metinvest closely follows developments in environmental protection technology to select the optimal solutions for its operations. During the reporting period, we made progress on several key projects to reduce atmospheric emissions, including modernising gas treatment systems and units, blast furnaces and the aspiration systems of BOF shops.

Modernising Ilyich Steel's sinter plant

In 2020, Metinvest completed the initial scope of the environmental modernisation at Ilyich Steel's sinter plant, which took seven years. This is one of the largest environmental initiatives in the history of independent Ukraine. The overall investments are to exceed US$160 million.

Italy's Termokimik Corporation was the equipment and technology vendor for the project and Metinvest Engineering[11] was the general contractor.

The technical solution implemented as part of the project involves a complex, two-stage gas cleaning system. In the first stage, a coarse dust-scrubbing system uses modern Hurriclone cyclones to capture coarse dust particles for reuse in production. In the second stage, powerful bag filters clean dust and sulphur compounds from the gas, reducing dust emissions more than ten-fold.

The aim of the work was to reduce the sinter plant's dust emissions by 90% and sulphur dioxide emissions by 46%. Overall, the project will help to decrease dust emissions in Mariupol by one third.

"I am grateful to everyone who has worked on this truly historical modernisation project throughout the years. Ilyich Steel's sinter plant is now not only one of the largest in Europe, but also one of the most environmentally friendly and modern."

Yuriy Ryzhenkov,
Chief Executive Officer

11 Metinvest Engineering is an engineering company that supports the Group's major investment projects, from the strategic planning phase to implementation.

In addition to modernising its sinter plant, in 2020, Ilyich Steel built new gas cleaning facilities for the casthouse and stockhouse of blast furnace no. 3, which will further reduce dust emissions. Next on the agenda is the construction of gas cleaning facilities for the casthouses of blast furnaces nos. 4 and 5. When finished, these projects should reduce dust emissions from the blast furnaces by 65% in total. Another important initiative at Ilyich Steel is modernising the gas cleaning facilities at the mixer department, which is expected to cut dust emissions by 25%.

In 2020, Azovstal reduced its dust emissions by almost 11% year-on-year by modernising blast furnace no. 3, the gas treatment system in the hot metal desulphurisation department, and the aspiration system for the mixer department in the BOF shop. Further plans include upgrading the gas cleaning facilities for the rotary kilns and BOFs, as well as building aspiration systems to eliminate fugitive emissions from this shop. In the coming years, Azovstal also plans to build a system to clean coke gas from hydrogen sulphide using the ammonia sulphide circuit method.

During the reporting period, Northern GOK began replacing the gas cleaning facilities of its Lurgi 552-A roasting machine, which is expected to reduce dust emissions by 40%. It also launched several important projects, including modernising the gas cleaners in the limestone and bentonite grinding facility, as well as the gas cleaning systems in the pellet dispatching unit.

In addition, to modernise the laboratory equipment used to monitor air emissions and air quality on the boundary of Northern GOK's sanitary protection zone, it will launch two investment projects entailing the purchase of 11 units of laboratory measurement equipment in 2021.

Kryvyi Rih Machining and Repair Plant replaced the bag filters in the gas cleaning system for furnace no. 6 and automated the cleaning process, including installing a signal system in steel foundry shop no. 1 that increased the efficiency of dust cleaning. The plant also expects to reduce dust emissions by performing capital overhauls and modernising the gas cleaning systems in its foundry shops, as well as the aspiration systems for the drying kilns in its drop-hammer plant.

In 2020, Avdiivka Coke finished assembling the gas cleaning equipment in the area of line no. 4 of the crystallisation department of its phenol and naphthalene production facility. This project will continue in the area of lines nos. 1-3 of the facility.

During the reporting period, Metinvest continued to implement a systematic programme of major maintenance on the coke furnace chambers at Azovstal, Avdiivka Coke and Zaporizhia Coke. In 2020, Dnipro Coke was added to this programme after it became part of Metinvest. The project's goal is to ensure that dust and gas emissions remain well below the acceptable regulatory concentrations.

GRI 305-7

Air emissions, '000 tonnes (excluding GHG emissions)

Year	Nitrogen oxides (NO_x)	Sulphur oxides (SO_x)	Carbon monoxide (CO)	Solids (dust)	Total
2018	16	20	271	30	**345**
2019	15	18	288	26	**354**
2020	15	18	299	23	**362**

During the reporting period, air emissions increased by 2% year-on-year, driven by greater output of the Group's main products. Notably, over the past three years, there has been a gradual reduction in the volumes of dust emissions, including a 12% year-on-year decrease in 2020.

This trend is the result of our long-term environmental programme, the most significant contribution of which was the modernisation of Ilyich Steel's sinter plant, as well as several initiatives at Azovstal, Northern GOK and Central GOK.

Managing Water Resources

GRI 303-1; 303-2

We strive to minimise our impact on water resources in the regions where we operate. We carefully monitor water quality, as well as the amount of water we use and return to the environment.

Metinvest's production assets use fresh and salt water from surface and ground water sources and utility systems. We do not consume water from areas undergoing water stress.

We seek to proactively identify the potential impact of our assets on water resources to prevent or reduce the existing impact. This requires a comprehensive assessment of investment projects from the standpoint of the efficiency of water resource use and with an aim to decrease negative factors. For instance, while modernising gas cleaning facilities to reduce the use of water, the priority is primarily given to using dry methods and local water recycling.

Metinvest's production processes mainly use water to cool equipment or substances without direct contact with the raw materials or products. Systems are designed to require insignificant fresh water intake to replenish the reverse cooling cycles when water evaporates. Water resources are also used for technological purposes. For example, the Group's mining and processing plants use recycled water to prepare a mixture with milled ore before separating the valuable components from the tailings. In addition, the BOF production process uses water to purify the gas from steel production. This recycled water is cleaned in storage ponds and returned to the production process.

We carefully monitor the quality of water resources that are used and withdrawn by Metinvest's assets to ensure compliance with existing environmental legislation. It is vital for us to ensure that our impact on water resources is within the boundaries specified in environmental standards. We monitor our impact and regularly modernise our laboratories to ensure the accuracy of our measurements.

GRI 303-3; 303-4; 303-5

In 2020, Metinvest's systematic efforts to improve and mitigate its impact on water resources, increase operating efficiency and ensure proper maintenance resulted in a share of reused and recycled water withdrawn from all sources, including previously recycled, of 81%, up one percentage point year-on-year.

In 2020, we reduced the total volume of water intake and discharge by 4% and 3% year-on-year, respectively.

Another positive factor was the ongoing investment programme, which included installing a new cooling system at Azovstal's blast furnace no. 3 and performing capital overhauls of Avdiivka Coke's recycled water supply systems.

During the reporting period, Azovstal switched its cooling systems to use chemically purified recycled water, including pre-commissioning work and putting the system into operation. This initiative reduced the volume of water drawn from the Sea of Azov by almost 4% year-on-year.

Water consumption[12], million m³

Year	Surface water	Ground water	Utilities	Other sources	Total
2018	617	3	44	8	**672**
2019	555	3	44	12	**614**
2020	533	4	41	7	**585**

12 Water consumption is defined as the use of water withdrawn from water bodies in production operations and for household purposes.

To decrease costs and make more rational use of water resources, Avdiivka Coke also replaced a cooling fan tower.

In 2020, the Group's iron ore assets in Kryvyi Rih conducted scheduled maintenance on tailings storage facilities and pipelines that transport clarified water and sludge. In particular, Ingulets GOK began constructing a pumping facility to withdraw drainage water and return it to the water recycling system. It also installed a variable frequency driver to regulate the pressure in pumps during the day.

Central GOK continues to develop and implement measures to rehabilitate the bed of the Ingulets River and enhance the water quality in the Karachunivske Reservoir.

In the near future, we plan to amend Metinvest's existing Policy and Principles in the Field of Health, Safety and the Environment to harmonise the approach to such issues as managing or decreasing water consumption and discharge with our objectives and tasks in this area. The Group is currently working to develop conceptual technological solutions in order to decrease the impact of our assets on water resources. We will use the results of these efforts to determine relevant key target indicators.

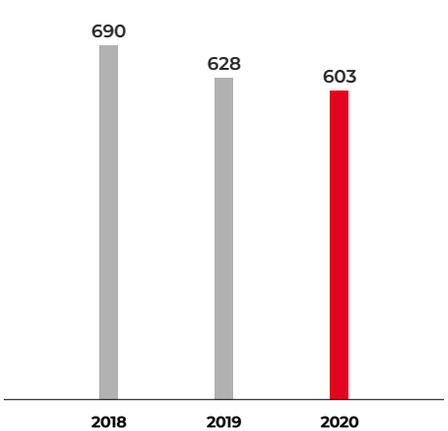
Expanding the environmental monitoring system in the Donbas region

In 2020, Avdiivka Coke and Inkor Chemicals[13] participated in a project to increase the capabilities of environmental monitoring systems in the Donbas region, which was implemented by the coordinator of the Organisation for Security and Co-operation in Europe (OSCE) in Ukraine.

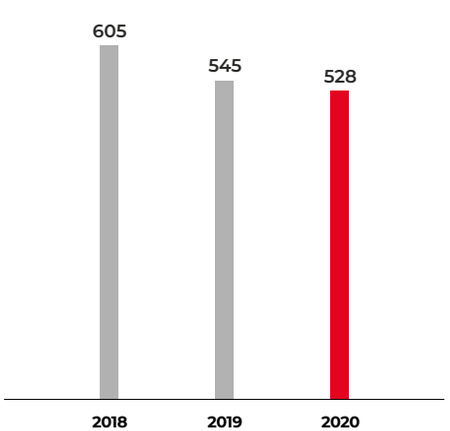
One of the initiative's main goals is to enhance the collection, accumulation, processing and reporting of environmental data in order to identify ways to improve natural resource use and compliance with environmental protection requirements in the conflict area in Eastern Ukraine.

The project analysed the sludge collectors of these Metinvest assets to determine their potential cross-border impact on local water resources.

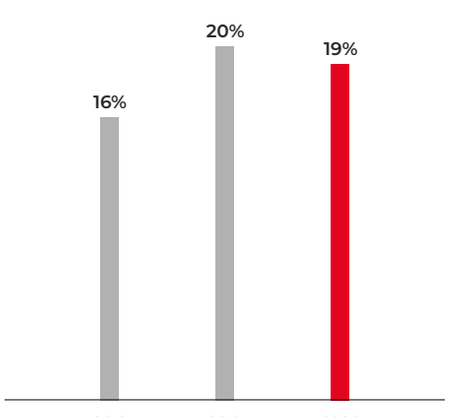
Total volume of water intake[14], million m³



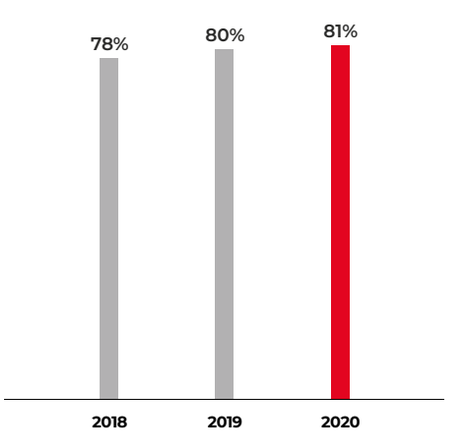
Total volume of wastewater discharge, million m³



Share of fresh water consumption



Share of recycled water



13 Inkor Chemicals was merged with Avdiivka Coke in late 2020.
14 Water intake is defined as water withdrawal from water bodies for consumption or storage.

Managing Waste

GRI 306-1; 306-2

Responsible waste management is one of Metinvest's priorities. The production cycle generates a certain volume of industrial waste, including overburden and treatment sludge (tailings) from ore extraction and enrichment, chemical by-products from coke production, as well as slag and iron-containing sludge from hot metal and steel production. Our facilities also generate other types of waste, such as fluorescent lamps, batteries, used oil and household waste.

Throughout our operations, we strive to minimise the volume of waste that we generate, store waste safely in specially designated areas, maximise its reuse and recycling through replacement of iron ore raw materials with scrap and the production of crushed rock for road repair and construction.

In accordance with applicable legislative requirements and the Group's internal regulations, all assets regularly collect data about the volumes and types of waste that they generate. Such information is collected daily for most technological waste and quarterly for other types of waste. Each asset has coordinators responsible for gathering the required information and uploading the digital forms into Metinvest's centralised database.

We work with various waste management contractors, who are subject to a multi-level review for compliance with our internal procedures. We also work carefully to ensure that waste processing, recycling and disposal procedures comply with applicable legislation and regulations. To prevent violations by contractors, Metinvest closely checks all required documents both before and during the performance of waste management services. In addition, our environmental function performs random on-site audits of the largest specialised organisations to ensure the compliance of their hazardous waste management facilities with all regulatory requirements.

The Group deposits its waste in specially designated areas, such as slag and sludge storage facilities. In addition, three of our iron ore assets have tailings storage facilities (TSFs). These structures are commonly located in areas that feature relatively low seismic activity and exposure to strong rains. All of the Group's TSFs have sufficient size to ensure many years of operation. Metinvest fully complies with regulatory requirements and applicable legislation to retain the licences required to operate such facilities. We closely monitor storage facilities and minimise potential risks. We also designate employees responsible for checking each TSF twice a day. External control is performed by a special commission that conducts on-site audits twice a year, as well as government bodies that analyse the condition of the TSFs once a year.

Ensuring the long-term safety of tailings storage facilities

Following the tragic collapse in 2019 of a tailings dam in Brazil, companies throughout the world have worked to ensure the long-term safety of such facilities and revise their operating procedures.

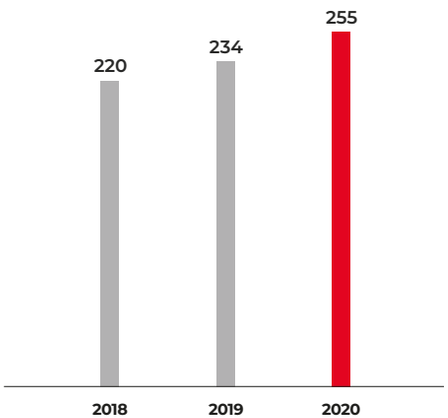
As Metinvest's number one priority is to ensure the safety of its employees and communities, the Health, Safety and Environmental Committee of the Supervisory Board tasked the management to have an independent survey of its tailings storage facilities conducted. We engaged competent international experts, SRK Consulting Limited (UK), to perform a dam safety operational review audit in accordance with the relevant governing principles of the Mining Association of Canada (MAC) guidelines and Canadian Dam Association (CDA) dam safety guidelines, which are currently considered to represent international best practice.

During the audit, a field observation of the dams at all tailings storage facilities was performed to check their resilience. Specialists of SRK Consulting Limited assessed the existing methods and measures in place to monitor the condition of the dams currently in use by the assets. The audit found that the Group is in compliance with local regulations. We received recommendations regarding further metrics to study through instrumental surveys and samples, which will be conducted using specialised equipment.

We will continue to track available technological solutions that make it possible to enhance the safety of our TSFs in line with international best practice and to ensure they remain safe for both communities and the environment for generations to come.

GRI 306-3; 306-4; 306-5

Total volume of waste generated, million tonnes



Total weight of waste, million tonnes

Year	Total weight of landfill waste[15]	Weight of waste transferred to third parties[15]	Weight of recycled waste[15]	Total weight of generated waste
2018	159	1	60	**220**
2019	166	3	66	**234**
2020	193	3	60	**255**

In the reporting period, Metinvest generated 255 million tonnes of industrial waste from production, 97% of which was non-hazardous, mostly overburden and tailings from the iron ore producers.

The 9% year-on-year increase in the volume of generated waste in 2020 was caused by a change in the share of overburden in the total volume of extracted materials, as the share of waste rock and valuable ore during quarrying depends on the natural conditions of mineral deposits. This factor also has a significant effect on the amount of recycled or transferred waste. All non-hazardous waste is deposited in special slagheaps and tailings storage facilities and some of it can be to construct haul roads in open-pit mines and for mine restoration.

In 2020, the volume of recycled waste was 24%, down 4 percentage points year-on-year. This decrease is the result of two factors. First, more intensive utilisation of slag products from the Mariupol steelmakers and a higher volume of construction waste at Northern GOK in 2019. Second, greater iron ore production in the reporting period.

GRI 306-1; 306-2

During the production process, Azovstal generates by-products such as slag, which is stored in slagheaps. It uses equipment from AMCOM (the US) to extract ferrous materials from the slag for further processing in the BOF shop, which helps to reduce the use of pellets and sinter. This technology was introduced as part of Mariupol's environmental programme for 2012-20. In addition to processing metal-containing components, since 2008, Azovstal also uses BOF slag in the blast furnace process, which helps to reduce the total volume of slag generated.

Under the Memorandum of Cooperation with the Municipality of Mariupol on Joint Development of the City and Regional Programmes, Azovstal and Ilyich Steel continued to implement the Social Slag project, which involves the transfer of slag products free of charge to the utility assets of the city and region to be used for road repairs. In 2020, a total of 436,000 tonnes of slag products were transferred under the programme.

In 2020, Mariupol Machining and Repair Plant engaged qualified auditors to conduct a waste inventory to identify new types of waste and determine the extent to which they posed an environmental hazard. In addition, it developed and implemented measures aimed at minimising negative impacts. This included updating the waste management guidelines, establishing storage areas for newly identified waste at structural units, updating temporary storage schemes and arranging for initial accounting, as well as resolving the issue of waste transfer for recycling by specialised assets.

Consistent with the aim of the Stockholm Convention on Persistent Organic Pollutants to eliminate the use of polychlorinated biphenyl (PCB) in equipment such as electric transformers, condensers or other receiving units that contain liquid substances, Ilyich Steel transferred 9 electric transformers containing PCBs for recycling during the reporting period, leaving it with 60 more such electric transformers in use.

In 2020, Northern GOK implemented projects to reuse overburden from Annivskyi open-pit mine. These measures are aimed at ensuring the rational use of the plant's mining allotment and reducing the areas used for depositing industrial waste. Overburden and tailings were used to construct and repair of roads and rail links at mines, as well as dams of tailings storage facilities. Similar measures were undertaken at Central GOK.

In the near future, we expect to fully automate the process of collecting data about the weight and types of waste in a centralised database in the existing SAP Enterprise Resource Planning (ERP) system.

15 This may include waste generated in previous periods.

Biodiversity and Landscape Restoration

GRI 304-1; 304-2; 304-3; 304-4

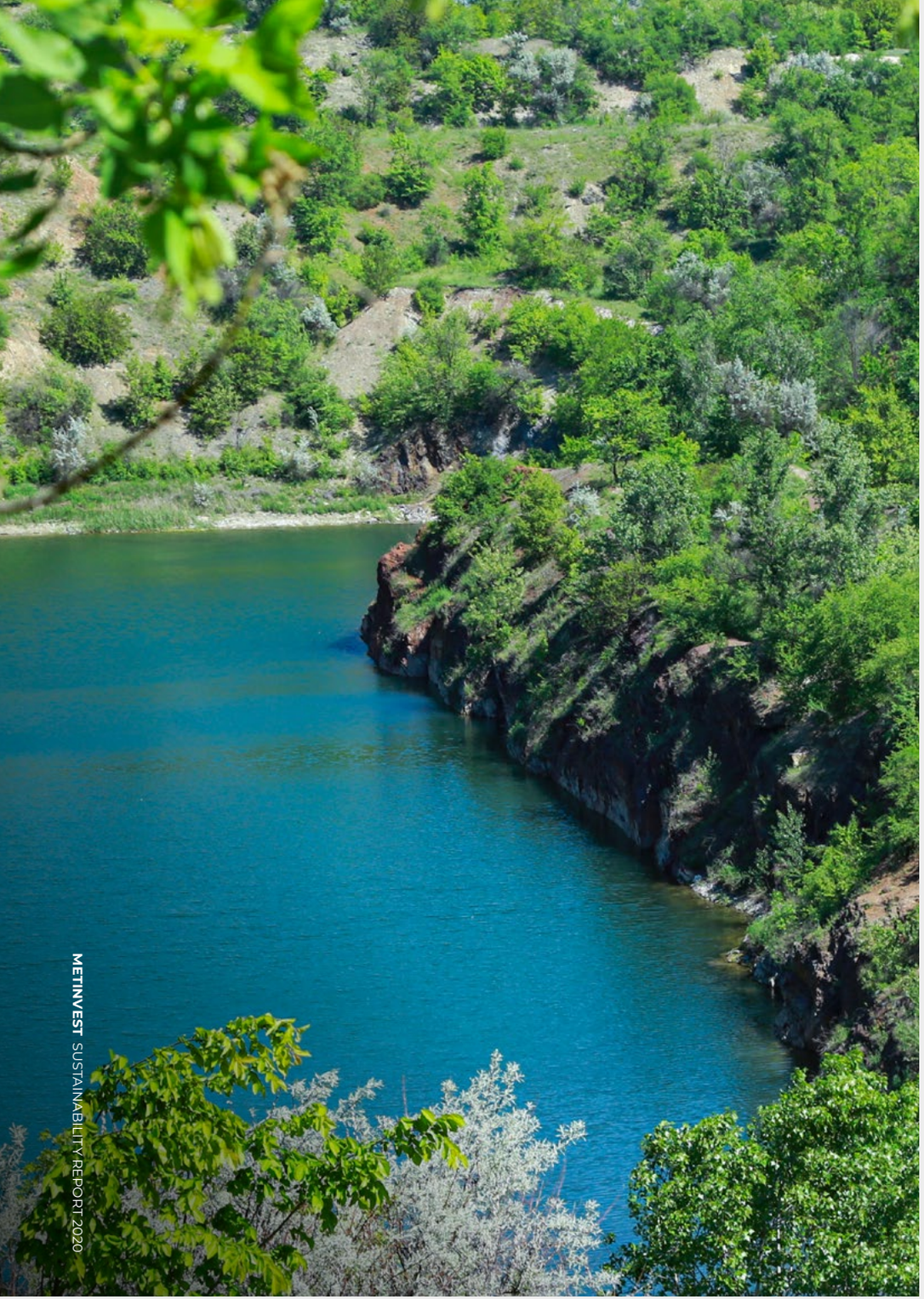
We care about preserving biodiversity and monitor the efficiency of the measures that we take to reduce our impact on it. Our assets do not operate in any protected natural areas and areas of high biodiversity value. In addition, their activities do not affect the habitats of species on the International Union for Conservation of Nature (IUCN) Red List or national conservation list.

An integral part of Metinvest's activities is the complete restoration of disturbed lands as a result of its mining operations in the regions of its presence. We undertake a range of measures aimed at preserving landscapes, reducing the area of disturbed lands, and restoring sites to their previous condition.

In 2020, Ingulets GOK performed various work at its tailings storage facilities and waste dumps. This included planting 4 hectares of rye and 0.7 hectares of rapeseed; landscaping 5 kilometres of tailings storage facility braces using fertilisers and rapeseed; planting 7,000 young acacia, ash, mulberry and pine trees; planting more than 100 kilogrammes of field, pasture and nectar-bearing grass seeds; and working to eliminate ragweed from 3 hectares of land.

The Group's other mining and processing plants also performed landscaping projects in their sanitary protection zones. To fulfil the environmental protection aspects of a 2016-25 programme of the city of Kryvbas to resolve environmental issues and enhance the natural environment, Northern GOK planted 20,000 young trees as part of a landscaping project covering a total area of 10 hectares in the sanitary protection zone of Pervomaiskiy open-pit mine. It also planted about 3,000 shrubs as part of a landscaping project covering a total area of 1.3 hectares in the emergency storage pond of its TSF.

Central GOK planted 900 trees and shrubs and used overburden to conduct mine restoration work at depleted deposits in open-pit mine no. 2.



Protecting the Vizyrka Nature Preserve

Mine restoration is a vital process for restoring a site's ecosystem and natural appearance. This includes landscaping to provide normal living conditions for plants and animals.

The Vizyrka nature preserve is Metinvest's mine restoration showpiece. Since its creation in 2001, Ingulets GOK has provided comprehensive support to ensure the development of this protected landscape, providing a practical example of a new method for restoring land disturbed by human business activities.

The mine restoration approach applied at the Vizyrka open-pit mine is called renaturalisation, a method that is gaining popularity in the EU. Unlike the standard restoration process, instead of backfilling the open pit, it is allowed to fill with natural ground water. Afterward, the fauna gradually begins to recover. In such areas, additional minor human intervention helps this natural process to take place much more efficiently.

During the project's implementation, we significantly improved the health of the water bodies and enhanced the fertility of the land in the nature preserve. In addition, the area has become home to 103 new species of animal life.

In 2020, Ingulets GOK also built a paved road to open-pit mine no. 3 in the Vizyrka nature preserve and released 3,000 juvenile carp into the open-pit mine lake. In summer and autumn, clean-up work was organised at the preserve together with the Kryvyi Rih Foundation of the Future.

The clean-up work was performed by volunteers from local NGOs and neighbourhoods.

"The Vizyrka preserve is a unique place where you can watch nature being restored. You can even see animals there that are not typical for this region. This is clear proof of the fruits of Metinvest's care for the conservation area."

Ivan Naidenko, Regional Ethnographer