НОРНИКЕЛЬ

MMC Norilsk Nickel

ENVIRONMENTAL AND CLIMATE CHANGE STRATEGY

2025

Approved by the Sustainable Development and Climate Change Committee of the Board of Directors

Key milestones

2020

Environmental and Climate Change **Strategy** drafted

2021

Strategy **approved** by the Board of Directors

2023

Board-approved Environmental and Climate Change Strategy updated and **divided into mandatory and voluntary parts**

2024

Resolution on annual update

Logistic assets included in the Strategy, SO_2 emission and land rehabilitation targets updated

2025

Strategy planning horizon expanded **to 2035** with **targets** updated for both mandatory and voluntary parts

New activities added

Goals of the Environmental and Climate Change Strategy

Mandatory part

Compliance with Russian environmental laws, regulations, and environmental obligations of the Company

Dimension	Targets	Updated values			Risks (in accordance with the Russian laws)
		Baseline 2020	Actual 2024	Goal[4]	
EMERGENCIES	1 Number of interregional and federal emergencies affecting the environment in the regions of operation	1	✓ 0	0	Previous damage recovery of ca. RUB 148 bn
AIR	2 SO_2 emissions, kt	1,911	1,269	198	Suspension of operations CEP revocation Fines Charges for excess effluents Damage remediation
	3 Reduction of SO_2 emissions, %	0	34	90	
WATER	4 Compliance with the Russian standards as regards pollutant concentration in discharges, %	–	59	100	
	5 Compliance with fresh water withdrawal limits, %	100	✓ 100	100	
TAILINGS AND WASTE	6 Compliance of waste disposal facilities (WDF) with Russian regulatory requirements, %	90	98	100	Suspension of operations Licence revocation Fines Damage remediation
LAND	7 Rehabilitation of disturbed territories (reclamation, reforestation, sanitation, landscaping), ha	0	1,356[2]	4,064	Fines Damage remediation
BIODIVERSITY	8 Achievement of net zero biodiversity losses as a result of the Company's operations (Δ Integral Indicator of Ecosystem Health (IIEH))[1]	0.89	0[3]	≥0	Fines
STOCK EXCHANGE REQUIREMENTS	9 Compliance of the Group business units with stock exchange sustainability requirements	–	✓ 100	100	Reduced liquidity of products

4 TBU

1. Calculated as Δ IIEH = $IIEH_{rep}$ – $IIEH_{base}$, i.e. the difference in IIEH of the reporting year relative to the baseline year of the survey.
2. Cumulative figures in line with the Strategy goals
3. Baseline indicator of $IIEH_{base}$ of 2022.4. Including the new EPEP for Polar Division and previous obligations of the Company. Targets across the dimensions are to be achieved in different periods until 2035.

WATER (1/2)

Target update

☑ Mandatory part

Previous version

Dimension	Targets	Updated values		
		Baseline 2020	Actual 2024	Goal
WATER	Compliance with the Russian standards as regards pollutant concentration in discharges, %	–	59	100
	Compliance with fresh water withdrawal limits, %	100	100	100

Basis for adjustments

− No industry peers disclose pollutant concentration data in their reports

− Data integrity issues due to a high number of discharge points and monitored indicators

− Deviation in any indicator puts all targets at risk

\+ The indicator factors in treatment facilities to be built or reconstructed

\+ Implementation oversight simplified at the division level

\+ Water recycling and reuse rate disclosed annually in the Company's Sustainability Report

Proposed version

Dimension	Targets	Updated values		
		Baseline 2020	Actual 2024	Goal
WATER	Construction (reconstruction) of treatment facilities at wastewater discharge points, %	–	17	100
	Water reuse rate (closed water circuit, reduced water withdrawal), %	86	81	Min. 80[1]

1. Maintaining the indicator while production grows.

WATER (2/2)

Mandatory part

Construction completion and commissioning outcomes

8 ✓
local treatment facilities

ca. **RUB 3.5 bn**
total cost of projects

Over **10** mcm per annum
Company wastewater treated to standard

NTEC's treatment facilities

Planned construction of local treatment facilities and

38[1] treatment facilities
need construction/upgrade until 2035

9 major projects of wastewater treatment facilities
at various implementation stages at Mayak, Oktyabrsky, Anhydride, Kayerkansky, Zapolyarny, Severny mines, Lebyazhye tailing dam, Monchegorsk site, NMP discharge points 41 and 145

Modular treatment facilities for suspended solids, discharge point 170, Oktyabrsky mine

11 effluent discharge points
to be eliminated

16.6 mcm per annum
environmental effect after elimination of discharge points (reduction of wastewater discharge)

1. Excluding facilities expected to come online in 2025

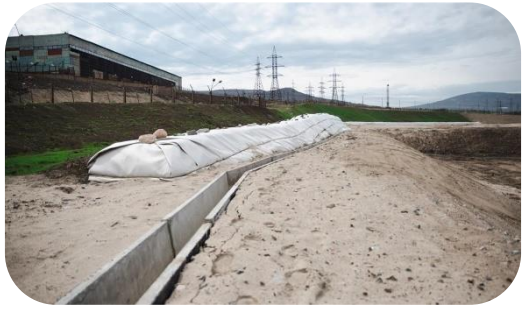
WASTE

Mandatory part

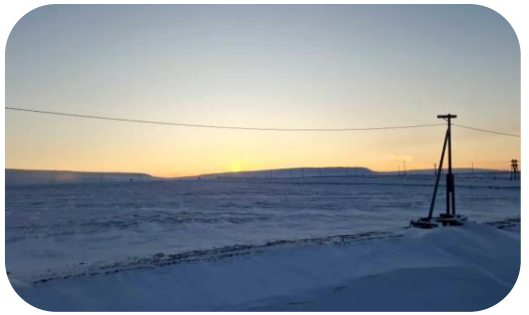
5 compliance assessment criteria

1. Waste management **licence** in place
2. **WDF design documentation developed and approved following state environmental expert review** (for facilities commissioned after 2008)
3. **WDF registered** in the state waste disposal facility registry
4. **Sanitary buffer zone** established around the WDF
5. No **outstanding orders** issued by environmental authorities

Division	Number of waste disposal facilities compliant with Russian regulations	Number of waste disposal facilities non-compliant with Russian regulations	Compliance, %
Polar Division (Norilsk site)	**27**	**0**	✓ **100**
Polar Division (Kola site)	**6**	**0**	✓ **100**
Energy Division	**3**	**1** (Norilsktransgaz)[1]	**66**
Trans-Baikal Division	**7**	**0**	✓ **100**
TOTAL FOR THE COMPANY	**43**	**1**	**98**



In 2024, a 5.8 ha **industrial waste landfill** with a capacity of 26.8 ktpa was commissioned in Monchegorsk



Industrial Waste Dump No. 3, Norilsk.

1. No approval by State Environmental Expert Review Board or State Expert Review Board

BIODIVERSITY (1/2)

Current projects (selected examples)

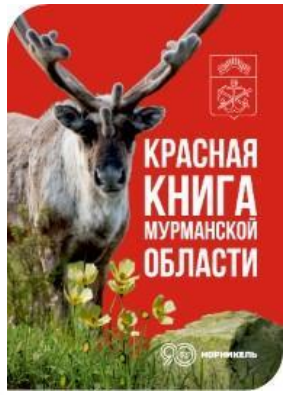
☑ Mandatory part

Innovative fish-stocking methodology

Biologists install incubator nests for eggs of valuable fish species to develop before being released into water bodies.

Science volunteering

Volunteering redefined: students working and conducting research alongside scientists in nature reserves.



Red Data Book of the Murmansk Region

Russia's first Red Data Book with net zero carbon footprint + digital version for children's education.

Reintroduction of endangered species

Study underway to restore the population of the freshwater pearl mussel in the Murmansk Region
Consultations held on the feasibility of reintroducing the bison in the Trans-Baikal Territory

Rescue service

Unique expertise accumulated in rescuing endangered species, including the world's first humpback whale rescue.

Restoring ecosystems

Water and air quality confirmed — around 50 Red Data Book swans on Lake Kuotsjärvi near Nickel.

Accumulated expertise and project scale enable a 10-year long-term Biodiversity Programme

BIODIVERSITY (2/2)

Prospects by 2035

☑ Mandatory part

Implementation stages

2025: Assessing current and completed biodiversity projects

Drafting a long-term biodiversity conservation programme until 2035 (the "Programme")

Programme approval

2026: Updating the Board of Directors Position Statement on biodiversity

2026–2035:

Implementation of Programme projects and activities

Key focus areas

1. Flagship projects in cooperation with nature reserves:
   - monitoring and restoration of certain biodiversity areas
   - infrastructure development in specially protected natural areas
   - promotion of science volunteering
   - IIEH testing
2. Divisions' independent projects: ecosystem restoration and reproduction of certain species

Performance measurement

Key biodiversity performance metric: Integral Indicator of Ecosystem Health (IIEH)

Annual monitoring **assesses positive/negative changes** via the delta (Δ) of IIEH

Divisions	2022	2023	2024	2025	2026	2027	2028	2029	2030–2035	Goal
Polar Division (Norilsk site)	$IIEH_{base}$ = **0.826**	Δ = **0**	–	–	–	–	Δ ≥ **0**	Δ ≥ **0**	Δ ≥ **0**	**Δ ≥ 0**
Polar Division (Kola site)	$IIEH_{base}$ = **0.93**	Δ = **0**	Δ = **0**	Δ ≥ **0**	Δ ≥ **0**	Δ ≥ **0**	Δ ≥ **0**	Δ ≥ **0**	Δ ≥ **0**	**Δ ≥ 0**
Energy Division	$IIEH_{base}$ = **1**	Δ = **0**	–	–	–	–	Δ ≥ **0**	Δ ≥ **0**	Δ ≥ **0**	**Δ ≥ 0**
Trans-Baikal Division	$IIEH_{base}$ = **0.913**	Δ = **0**	–	–	–	–	Δ ≥ **0**	Δ ≥ **0**	Δ ≥ **0**	**Δ ≥ 0**

The baseline value is set as $IIEH_{base}$ for 2022. The actual value is calculated using the formula: $\Delta\ IIEH = IIEH_{rep} - IIEH_{base}$, i.e. the difference between the reporting year's IIEH and the baseline year's IIEH. An increase in biodiversity is anticipated due to the implementation of the Sulphur Project in Norilsk and the decommissioning of the smelter shop in Nickel. This recovery is expected as ecosystems self-restore following the elimination of the stress factor.

Mandatory part of the Strategy for 2026–2035

9 targets | **182 measures** | **Total indicative budget for 2026–2035: RUB 237 bn**

Dimension	Polar Division (Norilsk site)	Polar Division (Kola site)	Energy Division	Trans-Baikal Division	Logistic assets
	64 measures	44 measures	41 measures	9 measures	24 measures
WATER	27	8	25	3	11
AIR	11	8	1	4	3
TAILINGS AND WASTE	5	8	3		5
LAND	13	16	10	1	4
NUMBER OF EMERGENCIES	2				
BIODIVERSITY	6	4	2	1	1
INDICATIVE BUDGET, RUB bn OPEX/CAPEX	14.4 / 124.7	9.9 / 73.8	1 / 9.5	0.4 / 0.8	0.8 / 2

Goals of the Environmental and Climate Change Strategy

Voluntary part

Compliance with international standards, public image events, climate change

Dimension	Targets	Updated values			Prerequisites for goal achievement
		Baseline 2020	Actual 2024	Goal	
CLIMATE CHANGE	GHG emissions (Scope 1 and 2), mt of CO_2 equivalent	**8.5**	**8.6**	**TBU**[2]	• Federal Law No. 296 dated 2 July 2021 • Strategy of Socio-Economic Development of the Russian Federation with Low Greenhouse Gas Emissions until 2050 (No. 3052-r dated 29 October 2021) • Evolution of carbon regulations in Russia and foreign markets • Russia's Climate Doctrine
	Share of renewable energy use, %	**46**	**55**		
TAILINGS AND WASTE	Share of non-mineral waste recycling, %	**16%**	**17%**	**20%**	• Russian Government Resolution No. 1589-r dated 25 July 2017
	Share of mineral waste recycling, %	**20%**	**16%**	**20%**[3]	
STANDARDS	Compliance with sustainability standards	**Implementation of the Roadmap** for Ensuring the Company's Compliance with International Sustainability Standards and the Climate Change **Action Plan**[1]			• IFRS S2 Climate-related Disclosures • Requirements of the London Metal Exchange, Moscow Exchange • Recommendations of the Russian Ministry of Economic Development, Bank of Russia, ASI, RAEX, ACRA, Expert RA, EcoVadis

2026 budget | Voluntary part

RUB **0.12** bn
OPEX

RUB **4.5** bn
CAPEX

1. The current Action Plan expires in 2025
2. TBU in 2026
3. Maintaining the indicator despite the Group's increased waste generation until 2035

Climate change

Voluntary part

Nornickel remains committed to reducing GHG emissions.

Climate change issues proposed to be addressed in a separate Strategy

Prerequisites for development	Key areas	Potential benefits from implementation
Losses from accidents caused by environmental changes	**ADAPTATION**	**Improving the reliability of existing facilities** through geotechnical monitoring and ground surface movement monitoring
Evolution of Russian regulations on climate change adaptation (monitoring systems, infrastructure resilience, risk assessment, etc.)		**Construction/reconstruction** of climate-resilient facilities
		Integrating corporate approaches into national climate change adaptation regulations
Costs associated with potential expansion of carbon regulations in Russia and sales markets	**DECARBONISATION**	**Reducing energy consumption** through energy efficiency
Lack of access to advanced foreign low-carbon technologies reduces decarbonisation potential		**Reducing the Company's carbon footprint** through climate projects
Non-compliance with IFRS S2 climate-related disclosure requirements	**REPORTING**	**Reducing labour costs and calculation time** for GHG emissions (Scopes 1, 2, 3) and carbon footprint of products through automated solutions

Tailings and waste

Voluntary part

Share of mineral waste recycling

Goal 2035:

20%

Share of non-mineral waste recycling

Goal 2035:

20%

Prerequisites for goal achievement (circular economy)

The share of non-mineral waste recycling needs to increase. Starting 2021, landfilling of plastic, glass, paper, automotive tyres, etc., is prohibited. The recycling is currently outsourced

Division	Description	Target deadlines	Status
Polar Division (Kola MMC)	Discontinuation of mineral waste disposal at waste facilities by integrating waste into production	**2031**	Options are explored for integrating ferrous cake and neutralisation cake
	Incorporation of crushed stone production services in contracts with demolition companies	**2031**	Recycled crushed stone used for site levelling
	Pilot project for waste sorting with subsequent sale or recycling	**2027**	Waste management project: procuring containers, shredders, and compactors for waste processing
	Utilisation of a facility for processing fabric waste from synthetic polymer textiles	**2026**	Acquisition and commissioning of a facility for anode bag processing

Voluntary part of the Strategy for 2026–2035

5 targets | **95 measures** | **Total indicative budget for 2026–2035: RUB 10 bn**

Dimension	Polar Division (Norilsk site)	Polar Division (Kola site)	Energy Division	Trans-Baikal Division
	32 measures	50 measures	5 measures	8 measures
CLIMATE CHANGE	29	32	5	6
TAILINGS AND WASTE	3	11		2
STANDARDS		7		
INDICATIVE BUDGET, RUB bn OPEX/CAPEX	0.01 / 6	0.14 / 0.4	0.34 / 1.6	0.12 / 1.8

Once implemented, the Strategy will systematically address the decades-old environmental legacy, paving the way to becoming a green company

Environmental Monitoring Programme

27 stations

Installed in Norilsk and Monchegorsk. The system has been transferred to local administrations with public online access to real-time air quality data

Automated monitoring and control of emissions and discharges

35 stationary sources

equipped with automated monitoring systems in compliance with environmental laws

Land rehabilitation and reforestation

4,064 ha

Restoration of 100% of disturbed lands – equivalent to 5,708 football pitches[1]

Reduction of SO_2 emissions

-1.7 mt

Leading participant of Clean Air federal project in emission reduction

Water treatment

138 mcm per annum

Full compliance with the Russian standards, one of the industry's best water reuse rates

Non-mineral waste

1.6 mt accumulated over 50 years

100% of waste accumulated over 50 years either disposed of at environmentally compliant facilities or recycled

Climate change, GHG emission reduction

Solar power plant commissioned at GRK Bystrinskoye

Buildings and foundations

Over 1,500 buildings and structures

100% of industrial buildings and structures provided with automated monitoring

1. Note: A football pitch has an area of 0.7 ha.


НОРНИКЕЛЬ
Thank you!