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27 January 2025

Extractive industry in the Russian Arctic fuels the war in Ukraine and damages the local environment and the global climate

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“Arctic LNG 2”. Credit: LaNataly / shutterstock.com

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Arctic extractive value for Russia

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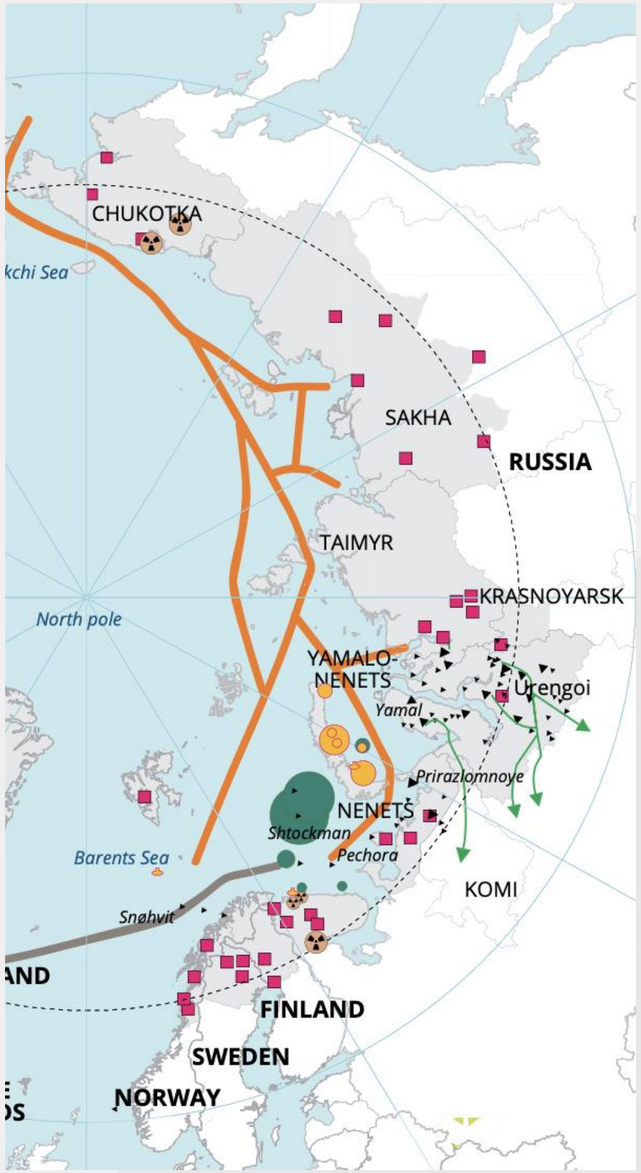
- **~83%** of natural gas
- **~17%** of oil
- **~100%** of diamonds
- **90%** of nickel & cobalt
- **60%** of copper

28% of Russian land

7-10% of GDP



Map: Bellona

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Industrial pollution legacy

Four most known heavily polluted Arctic regions in Russia.

Bellona's article.

Norilsk, credit: Alex Del Art

Since 1953

Norilsk

Mining and production of nickel, cobalt, copper, platinum group metals, etc.

10.5% of all emissions from stationary sources in Russia (mostly SO2, heavy metals)

Since 1930s

Murmansk region

Mining and production of copper, nickel, cobalt, sulphur.

Most polluted – cities Nickel, Zapolyarny, Monchegorsk. SO2, heavy metals. No vegetation 40 km around, severe water pollution

Since 1980s

Usinsk district

Oil production.

1994 – largest onshore oil spill in world history. Large number of oil spills on pipelines.

Since 1931

Vorkuta

Coal mining.

8th most air polluted city. Methane, heavy metals, groundwater pollution

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300 enterprises (30 in the Arctic) - > 60% emissions

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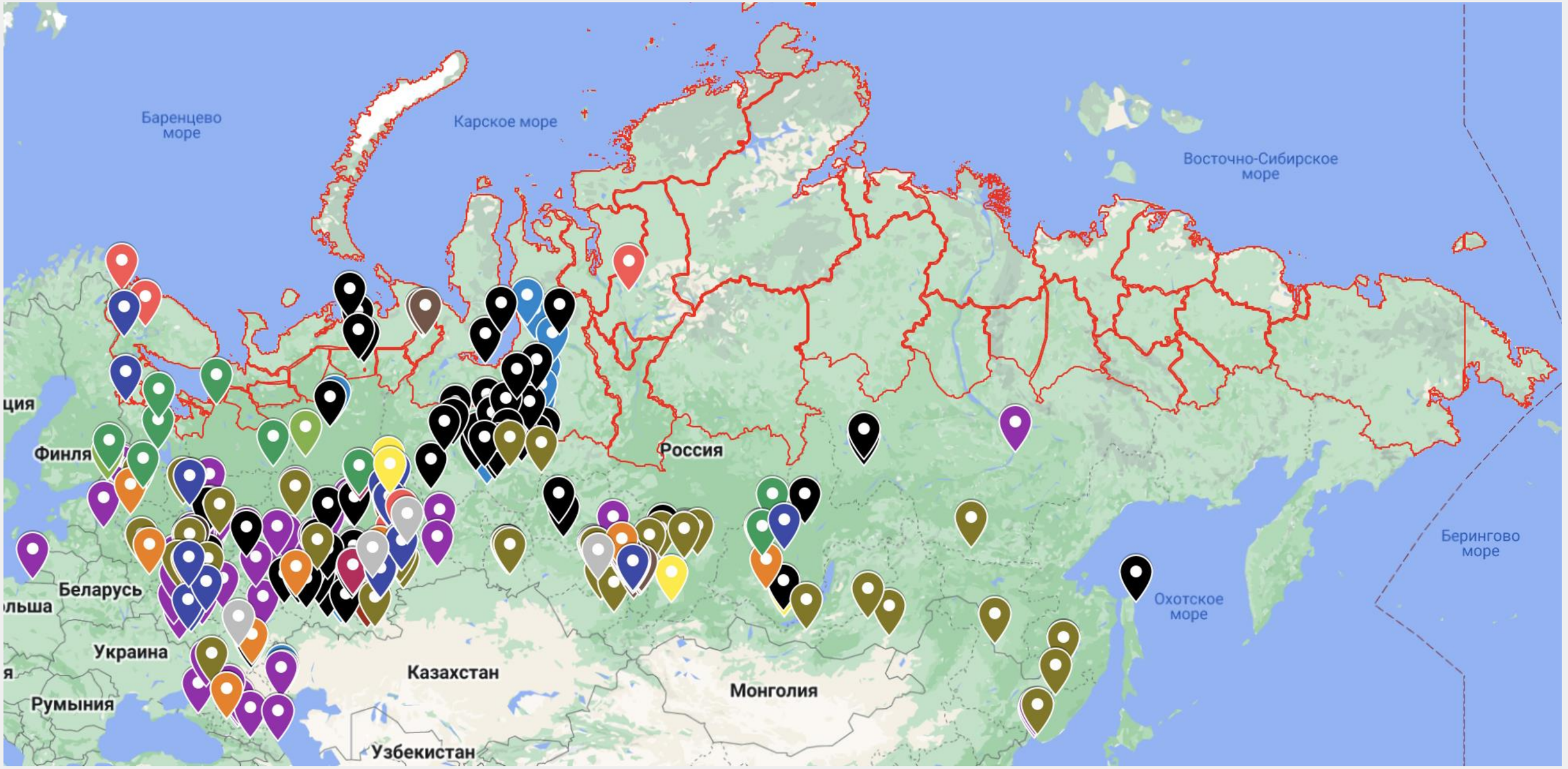

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Emissions and discharges from companies' Arctic enterprises

Company	GHG emissions, in thousands of tons CO2-eq per year, 2021	Pollutant emissions, in thousands of tons per year, 2021	Wastewater discharges, in millions of tons per year, 2021
Norilsk Nickel (3 industrial complexes in Norilsk, Monchegorsk and Nikel)	? (0 as per self reporting)	1933,9	268,2
Gazprom (9 oil and gas fields)	36993,995	2381,825	0
Lukoil (8 oil fields)	24340,345	190,635	0
Novatek (2 oil and gas fields)	10828,435	70,525	0
Vorkutacoal (5 mines and enrichment factories	695,48	417,72	17,1
Evrokhim (Kovdorsky mining and enrichment mill)	64,65	13,99	6,2
Severstal (Karelian Pellet)	603,82	84,11	16,8
AFK Systema (SEGEZH PULP AND PAPER MILL)	275,92	10,12	35,2
Archangelsk Pulp and Paper Mill	? (0 as per self reporting)	7,14	20

https://bellona.org/news/industrial-pollution/2023-10-norilsk-nickel-and-gazprom-are-the-biggest-polluters-in-the-arctic

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Extractive plans for the Russian Arctic

Activities	Targets*
Oil extraction	~10 new oil provinces, 26% of Arctic oil in 2035 (21.4% in 2022)
Gas extraction and LNG production	LNG: 43 mln t in 2024, 64 mln t in 2030, 91 mln t in 2035 (~23 mln t - 2024)
Mining	New mining sites of coal, lithium, gold, etc
Minimization of emissions and discharges	No targets, should be suggested by Dec 24 (no open info)
Migration	0 in 2030, 2 in 2035 (-4.5 in 2022)

*Strategy for the development of the Arctic zone of the Russian Federation and ensuring national security for the period until 2035

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Mining plans in the Russian Arctic

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Region	Production facility	Volume per year	Planned Year
Krasnoyarsk region	Vostok oil	100 mln t	2024-2030 (?)
YaNAO	Arctic LNG 2	20 mln t	2024 (?)
YaNAO	Arctic LNG 1	20 mln t	2027 (?)
Arkhangelsk region (Novaya Zemlya)	Pavlovskoe (lead, zinc)	220 thous t zinc, 50 thous t lead	2024 -> 2026
Krasnoyarsk region	Chernogorskoe (palladium, platinum)	7 mln t ore	2025
Krasnoyarsk region	Syradasajskoe (coal)	5 mln t	2023-2024
Murmansk region	Fedorova tundra (palladium, platinum)	16 mlt t ore	2027
Murmansk region	Afrikandskoe (titanium)	1 mln t ore	2027 (?)
Murmansk region	Kolmozerskoe (lithium)	2 mln t ore	2026-2030
Nenets ao	Natural gas chemical complex (methanol)	1.8 mln t	2027
Chukotsky ao	Baimski (copper, molibden)	70 mln t ore	2027
Chukotsky ao	Pyrkakajskoe (tin)	14.3 thous t	2030
Chukotsky ao	Sovinoe (gold)	3 t	2029
Yakutiya	Beenchim, Khatystakh (diamonds)	1 mln carat	2024
Yakutiya	Yanolovo (tin)	3000 t	2027
Yakutiya	Buranny, Tontorskoe (rare earth elements)	160 thous t	2029
Yakutiya	"Left Elgen" (gold)	1400 ounce	2024 (?)
Yakutiya	Kuchus (gold, tin)	10 t gold, 5000 tin	2030

+ at least **25 mln t of GHG**

+ at least **1.4 mln t of air pollutants**

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Export of the Arctic resources

16,7 mln t of LNG exported to the EU in 2024 (rise from 15,2 mln t in 2023)

1,78 mln t of UREA fertilizer (~1 bln m3 of natural gas) exported to the EU in 2024 (rise from 1,64 mln t in 2023)

Arctic oil goes to Asia on shadow fleet tankers

92 thousand t of nickel exported to the EU in 11 months of 2024 (down from 108,8 thousand t in 11 m of 2023)

Examples: gold mining

Credit: Zolotar.net

- Alluvial mining in remote areas – new mining in Arctic regions
- Water contamination
- Lack of state control (moratorium on control as a reaction to international sanctions)
- Satellite analysis to identify pollution (more than 10 thousand km of rivers contaminated as of June 2024 in Siberia and Far East)
- Profit is higher than fines

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Examples: coal pollution in Chukotka

- Open-pit mining -> toxic waste, methane emissions
- Dust – air and soil pollution -> vegetaion reduction, health problems
- Indigenous people depend on authorities and a mining company (Beringpromugol)

Loading coal before sending it for export. Ugolny port. Photo: Marina Sycheva

More: https://arctida.io/projects/Na-chernyh-beregah

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Almost no possibility for public control

Action to protect Pychim forest in Komi republic. 2022. vk.com/public214134514

- Hiding of information since 2022 (ex. daily oil extraction, detailed gold export, companies' annual reports, emissions data from industrial sites)
- Additional restrictions (ex. no drones to seek oil leaks in Komi)
- No independent strong NGOs left
- GONGOs instead of indigenous peoples associations

In 2023:

- 5 NGOs declared as "undesirable", incl. Bellona, Greenpeace, WWF
- 8 NGOs declared "foreign agents"
- More than 450 episodes of prosecution and pressure on environmental activists
- 26 criminal cases against environmental activists

Source: Ecological crisis group

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Key points

- We should expect increase in pollution and GHG emissions from extractive industry in the Russian Arctic in the coming decade.
- Russian data on industrial emissions can not be trusted.
- High risk of oil spill in the Arctic waters.
- Russian Arctic natural resources should be banned on the international markets both for environmental reason and to limit Russia’s capacity to continue its war against Ukraine.

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Thank you!

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