

Climate Change to Transform Russia's Landscape By 2100 – Study

May 18, 2021



By 2100, most of Russia's tundra and boreal zones could vanish, the Finnish scientists projected.

Pixabay

Russia's geography will dramatically change by the end of the century if climate change continues at its current pace, scientists at Aalmo University in Finland have [predicted](#) in a new study.

If the global climate warms by 3.7 degrees Celsius, radical climate zone changes will touch most of the planet's regions, threatening around one-third of the global food supply, the scientists wrote.

In this scenario, much of Russia's boreal forests and tundra could disappear by 2100 — while cities like St. Petersburg and Moscow could be surrounded by desert, the Finnish scientists projected in the study published last Friday.

During the baseline period of 1970–2000, most of Russia's territory was classified as boreal forest, tundra or cool temperate forests. But by 2100, most of the country's tundra and boreal

zones could vanish, the Finnish scientists projected in the study published last Friday.

Cool temperate forests around St. Petersburg and Moscow would transform into temperate deserts which now exist in places like Kazakhstan and the Mojave Desert in the American Southwest.

Meanwhile, Russia's steppes would be replaced by temperate deserts as they move from southern Siberia to eastern Siberia.

Most of geographical Europe (including eastern Russia) may be classified as chaparral, temperate or tropical forest zones by the century's end if current trends hold, the study said.

Related article: [‘How Can We Survive When the Land Is Gone?’ In Dagestan, a Proud People Fights the Desert](#)

Worldwide, the study's authors projected that boreal forests — which currently cover roughly 18 million square kilometers of the Earth's surface — could contract by 56% (to 8 million square kilometers) if global warming reaches 3.7 C. However, it may shrink by only 20% (to 14.8 million square kilometers) if carbon emissions are drastically cut and the planet warms by just 1.5-2 C as UN experts [hope](#).

Tundra may shrink by 75% or disappear entirely, sometimes replaced by boreal forests, the Finnish scientists warned. Meanwhile, boreal and temperate deserts are projected to grow.

While Russian officials recently [said](#) the country's Arctic regions may become arable in the next few decades, the Aalto University study said that new agricultural opportunities might not replace the loss to global food supply chains brought by radical shifts in Africa and South Asia, the regions most affected by the climate crisis.

Original url:

<https://www.themoscowtimes.com/2021/05/18/climate-change-to-transform-russias-landscape-by-2100-study-a73932>