

Emissions from Russian Permafrost Could Spike Tenfold if Leaders Ignore UN Climate Report Warning

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Experts believe that as permafrost melts, it will release an increasing amount of carbon, setting off a cycle of warming nearly impossible to stop. **Taken / pixabay**

Russia's permafrost could deteriorate fast and spark an accelerating loop of warming if world leaders don't heed UN climate scientists' call to drastically cut global carbon emissions, an expert told The Moscow Times.

The Intergovernmental Panel on Climate Change (IPCC) report [published](#) Monday shows unequivocally that climate change is progressing more quickly than feared — with temperatures already 1 degree Celsius above pre-industrial levels — and that time is running out to prevent catastrophic warming. It expands upon the IPCC's 2013 climate assessment, which came two years before nearly 200 countries signed the Paris Climate Agreement in hopes of keeping warming below 1.5 C.

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“This IPCC report studies climate feedback effects in much more detail than the previous report,” the World Wildlife Foundation (WWF) Russia’s head of climate and energy research Alexei Kokorin said.

Large amounts of carbon are stored within permafrost, the layer of soil that stays frozen year-round and covers nearly 65% percent of Russia’s territory.

While this permafrost doesn’t currently emit much carbon, Kokorin said its emissions could increase tenfold by 2100 if global greenhouse gas emissions continue to rise at their current pace.

Experts believe that as permafrost melts, it will release an increasing amount of carbon, leading to warming that in turn melts even more permafrost — setting off a cycle of warming nearly impossible to stop.

Kokorin also said Russia can expect to see extreme weather events with increasing frequency, with once-in-a-decade heat waves happening every five years if global temperatures rise 2 C beyond pre-industrial levels and happening nearly every year if the planet warms by 4 C.

“That could affect whether people will choose to live in Moscow. If a heatwave like the [current one](#) happens every five years, you can see it as bearable. But what if it happens almost every year? Would we have to move the Russian capital to another location?” Kokorin said.

More detailed information will be available when Russia’s national climate assessment comes out sometime next year, Kokorin said.

While the IPCC report relied mostly on scientific articles published in English, the Russian report will also include a lot of material that hasn’t been translated into English yet, potentially offering a deeper understanding of Russia’s unique climate dynamics.

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