Nitrous Oxide Emissions, With 300 Times The Warming Power of CO2, are On the Rise

More than 100 million tonnes of nitrogen fertilizer is sprayed on crops every year. When sprayed, the nitrogen releases nitrous oxide into the atmosphere. Over recent years Nitrous Oxide emissions from natural sources have remained stagnate, whereas emissions from human causes have skyrocketed over the last couple of decades. Concentrations of nitrous oxide have reached 331 parts per billion in 2018, 22% higher than before the industrial era. Emissions are caused by the use of synthetic fertilizers.

> *The emissions are created through* ***microbial processes*** *in soils. The use of nitrogen in synthetic fertilizers and manure is a key driver of this process. Other human sources of N_2O include the chemical industry, wastewater and the burning of fossil fuels.*
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> ***New research: nitrous oxide emissions 300 times more powerful than CO_2 are jeopardising Earth's future***

Nitrous Oxide is typically destroyed in the atmosphere by solar radiation, but *The Conversation* reports that we're currently emitting it faster than it's being destroyed. Nitrous Oxide has 300 times the warming potential of carbon dioxide and stays in the atmosphere for an average of 116 years.

Research from the intergovernmental panel on Climate change has shown that we have exceeded the levels of nitrous oxide expected in all of our developed scenarios for the future. We are on track to see a global temperature increase of 3 degrees Celsius, this century.

Emissions of nitrous oxide have grown 30% globally over the last three decades. Brazil, China, and India have been some of the top contributors, with growing economies and increasing numbers of livestock and crop production. In Europe, nitrous oxide emissions have decreased over the past two decades- even while agricultural productivity increased. Europe had implemented governmental policies to reduce pollution and encourage more efficient fertilizer use.

To reduce greenhouse gas emissions we should focus on sustainable small scale agriculture that promotes carbon sequestration. Our health and environment are very intertwined. By eating locally grown organic produce that is good for your body, you can also do good for the Earth.