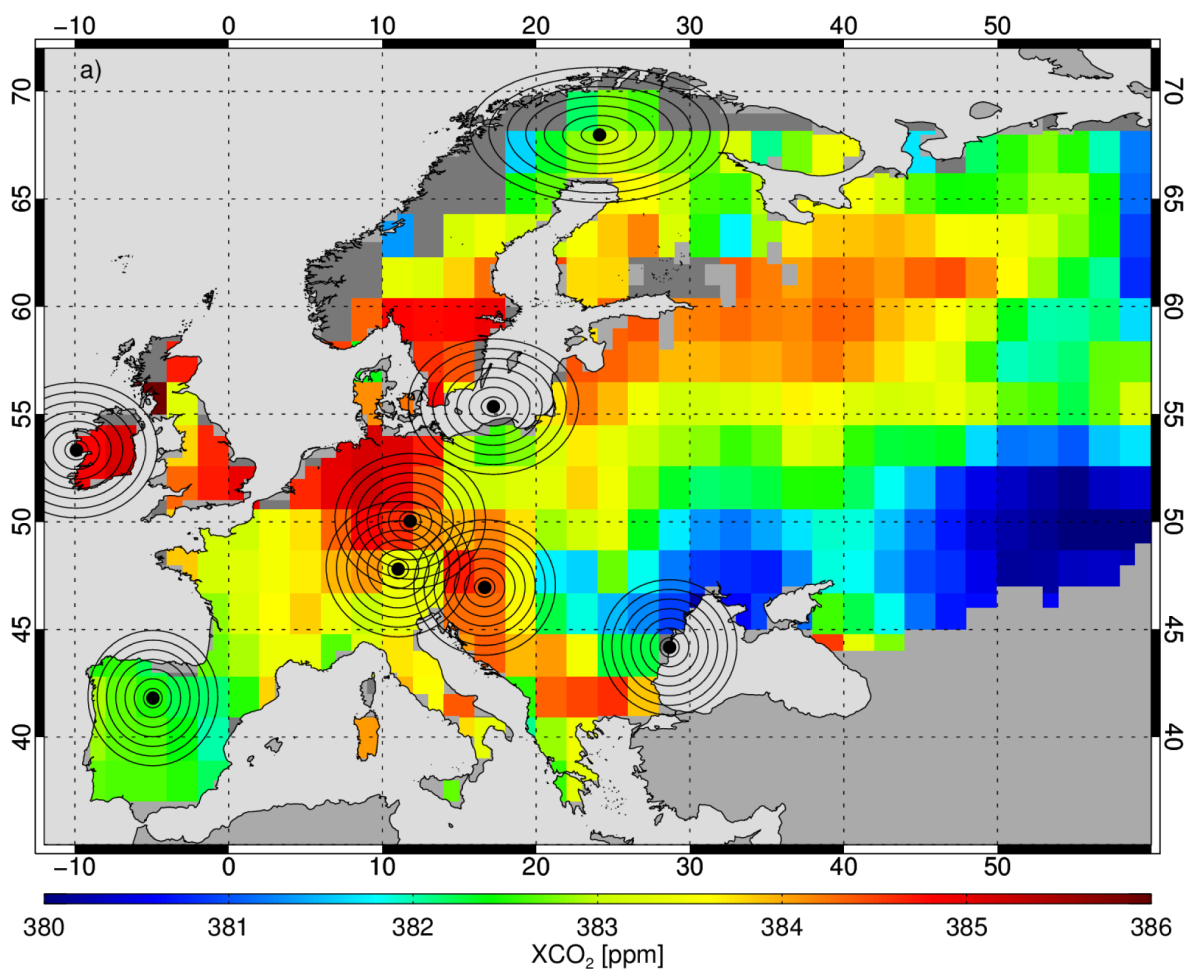


Greenhouse gases on the rise



Average satellite carbon dioxide concentrations over Europe

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18 May 2016

Satellite observations of planet Earth have shown that the amount of methane and carbon dioxide in our atmosphere is going up.

Methane and carbon dioxide are “greenhouse gases” thought to contribute to global warming. They act like a blanket around our planet, trapping heat and causing global temperatures to increase. This makes sea levels rise, and impacts people, plants, and animals.

Scientists have used ESA’s Envisat and Japan’s GoSat satellites to monitor the levels of these greenhouse gases. They found that the amount of methane in our atmosphere was fairly constant until 2007, but since then have increased at about 0.3% every year. Global carbon dioxide levels have risen by around 0.5% every year. This may not sound like much but these are worrying figures, especially as countries around the world have been trying to lower the amount of methane and carbon dioxide released.



Sentinel-5P

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Scientists are not completely sure where the extra methane is coming from, but it is likely from a few different sources such as large rice fields and farms with lots of sheep and cows. The extra carbon dioxide is probably a side effect of people burning fossil fuels like coal, oil and gas. This produces energy to create electricity and to power our cars, but also releases carbon dioxide into the atmosphere.

Monitoring the situation is important as without accurate data it will be difficult to lower the quantities of greenhouse gases. To help with this mission, an upcoming ESA satellite called Sentinel-5P will scan Earth for methane every single day, building up a more complete picture and helping combat global climate change.

Cool fact: plants absorb around 25% of the carbon dioxide that we produce.

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