



Drilling for oil and gas has caused long-lasting damage to ecosystems across Canada and the US, according to a study published today. The findings lend new weight to longstanding concerns over the resurgence in domestic fossil fuel production, as well as the complex land use regulations that make environmental monitoring more challenging.

The paper, published in the journal *Science*, examines the impact of oil and gas production on terrestrial plant growth, using a metric called net primary production (NPP). NPP can be used to gauge the health of the ecosystem.

Using satellite data from 2000 to 2012, the authors found that oil and gas production reduced NPP by about 4.5 Tg of carbon or about 10 Tg of biomass through the loss of vegetation — the mass equivalent of 30 Empire State Buildings. Croplands lost the equivalent of 120.2 million bushels of wheat over that period — about 13 percent of all US wheat exports in 2013 — while rangelands lost vegetation totalling more than half the public grazing lands managed by the Bureau of Land Management.

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