

The carbon fallacy

Cows are not cars

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In discussions about global warming and climate change, all carbon emissions are seen as equally bad. FAO estimated that greenhouse gas (GHG) emissions from livestock total 7.1 gigatons of CO₂-equivalent per year, i.e. 14.5% of all anthropogenic GHG emissions (1).

In comparison, the transport sector is estimated to contribute 14% of all GHG emissions (2). This has led to press headlines such as “Cow 'emissions' more damaging to planet than CO₂ from cars” (3). However, such comparisons are misleading.

Carbon released by livestock, mostly methane and CO₂, is largely derived from plants. This “surface carbon” will be incorporated from the atmosphere back into plants and other photosynthetic organisms within days, years or perhaps centuries. However, the “deep carbon” released by combustion engines, mostly from oil, coal and gas, will not be put back in its original form (buried deeply under the surface, inaccessible to the atmosphere) for millions of years.

Cycling of “surface carbon” by herbivores and plants has been part of life almost since its inception. Large ruminants, such as the bison roaming US prairies in the past, have been belching methane into the atmosphere for millions of years. However, only since the industrial revolution mankind has released “deep carbon” into the atmosphere. If humans want to control carbon levels in the atmosphere, capturing carbon in million-year repositories is the way to go.

References

1. FAO <http://www.fao.org/news/story/en/item/197623/icode/>
2. IPCC https://www.ipcc.ch/pdf/assessment-report/ar5/wg3/ipcc_wg3_ar5_summary-for-policy-makers.pdf
3. Independent <http://www.independent.co.uk/environment/climate-change/cow-emissions-more-damaging-to-planet-than-co2-from-cars-427843.html>