



# Carbon Offsetting: Salvation or Instrument of the Devil?

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**Travel Carbon Project: Towards Net Zero and Tackling Poverty**

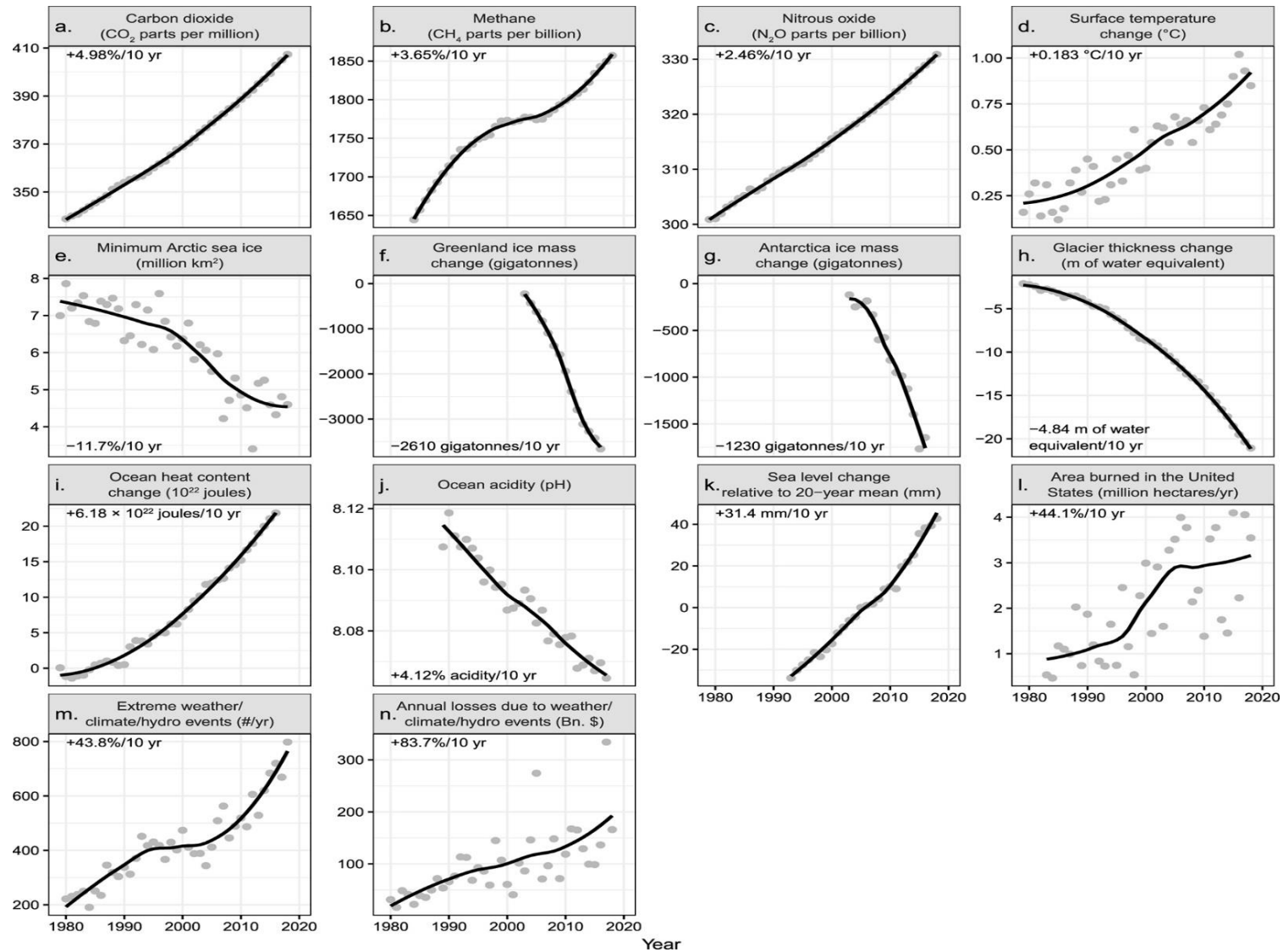
Bristol Poverty Institute Meeting

2D1, Priory Road Complex

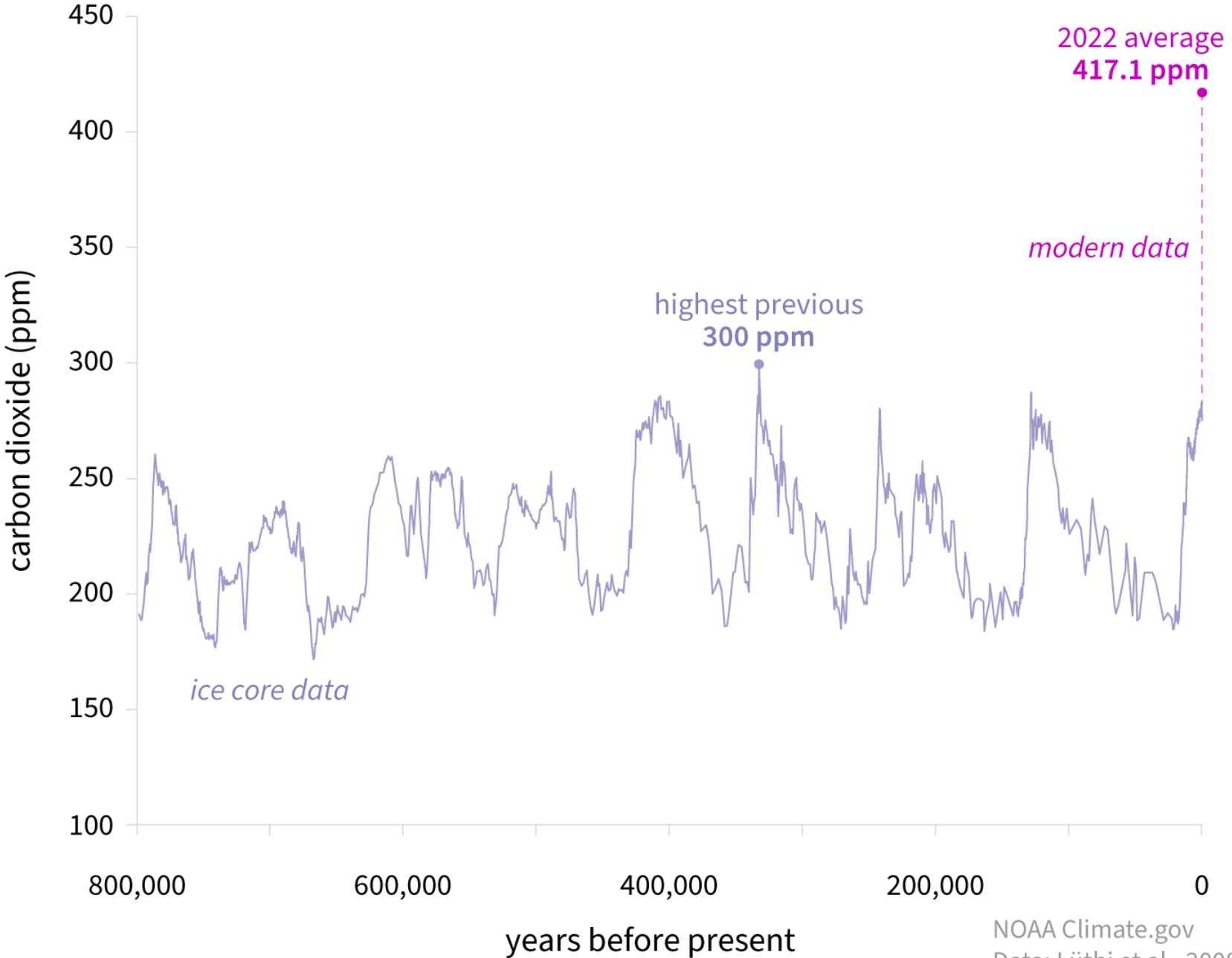
2<sup>nd</sup> November 2023

# Climatic and environmental changes from 1979 to the present.

The rates shown in the panels are the decadal change ...



# CARBON DIOXIDE OVER 800,000 YEARS



NOAA Climate.gov  
Data: Lüthi et al., 2008

## Professor Alan Heywood's Summary of Pliocene Climate: Royal Meteorological Society Meeting- April 2019

- Intervals within the Pliocene epoch were warmer and wetter than the pre-industrial era, although the character of climate change was time specific and related to the pacemaker of orbital forcing.
- Global annual mean temperature was ~1.8 to 3.6°C warmer, and global annual mean precipitation rates enhanced by up to 6%.
- A clear pattern of polar amplification is reconstructed as well as simulated.
- The Arctic Ocean may have been ice free in the summer, and forests reached the Arctic coastline.
- The Greenland and Antarctic Ice Sheets lost mass, and therefore sea-level increased, but the exact nature of ice sheet and sea-level change is very challenging to reconstruct as well as simulate.
- Statistical studies confirm the utility of the Pliocene as a geo-historical analogue for the near future.

*“After studying the Pliocene for 21 years, and all things being equal in the decades ahead, I will experience first hand a climate state that has not existed for more than 3 million years.”*

# Carbon Offsetting: A Sorry History of Disappointment and Fraud

FRANCE

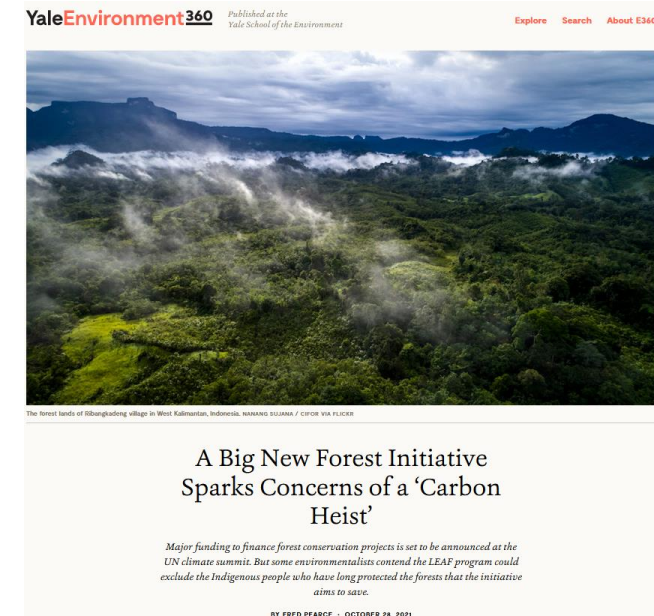
## Trial of carbon tax 'fraud of the century' opens in Paris

Between 2008 and 2009, 1.6 billion euros were swindled in a huge carbon quota market scam dubbed the "fraud of the century". On Monday, 36 people suspected of running the scheme's largest operation went on trial in Paris.

Issued on: 29/01/2018 - 18:19



Anthony Lucas, AFP | An incineration plant in Ivry-sur-Seine, near Paris. On January 29, the trial of 36 people suspected of involvement in a huge carbon-trading fraud opened in Paris.



The world's largest carbon offset program the Clean Development Mechanism (CDM), set up in 1997 as part of the Kyoto Protocol, has supported more than \$90 billion of renewable energy investments in developing countries, equivalent to 13% of their total renewable energy investments.

*“we estimate that at least 52% of approved carbon offsets were allocated to projects that would very likely have been built anyway. This is a substantial misallocation of resources.”*

(Calel et al, 2021, *Do carbon offsets offset carbon?* Centre for Climate Change Economics and Policy Working Paper No. 398)

# Carbon Offsetting and Corporate Green Washing

The UN carbon-trading system never implemented the REDD framework —“reducing emissions from deforestation and forest degradation in developing countries”

A Washington D.C. Based NGO (called VERRA), provided a source of accreditation (Verified Carbon Standard - VCS) . It adopted the U.N.’s accounting methodologies, *“promising to apply them with a lighter touch.”*

*“If you require perfection, you’ll have a hundred million dollars’ worth of climate action. If you’re more pragmatic about it, you might have two billion or five billion.”* (David Antonioli CEO, VERRA)

The Voluntary Carbon Markets Integrity Initiative (VCMI), was launched by Alok Sharma on 31 March 2021 at COP26 – it launched guidelines ‘*Core Carbon Principles*’ in June 2023, which aim to deter dubious offsetting schemes and ‘greenwashing’ claims by large companies.

Trove Research analyses of 470 large companies using current carbon credit schemes found that only;

3.8% of firms would meet VCMI silver or above

2.7% of firms would meet VCMI gold or above

2.3% of firms would meet VCMI platinum

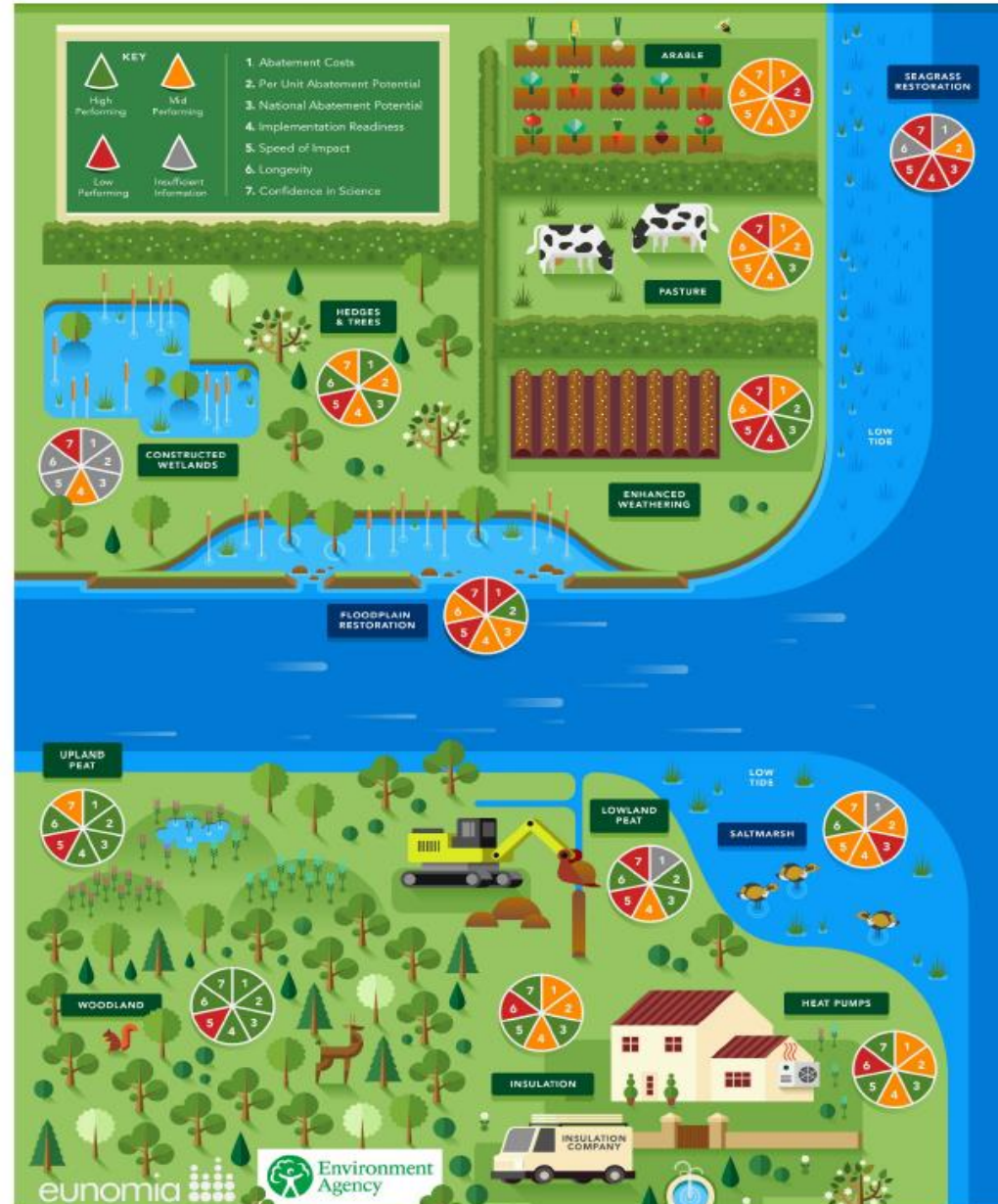


# Achieving net zero -

A summary of the evidence behind potential carbon offsetting approaches



eunomia



Source: Environment Agency (2021)  
Achieving net zero  
A review of the evidence behind  
potential carbon offsetting  
approaches.

[https://assets.publishing.service.gov.uk/media/60cc698cd3bf7f4bcb0efe02/Achieving\\_net\\_zero\\_-\\_a\\_review\\_of\\_the\\_evidence\\_behind\\_carbon\\_offsetting\\_report.pdf](https://assets.publishing.service.gov.uk/media/60cc698cd3bf7f4bcb0efe02/Achieving_net_zero_-_a_review_of_the_evidence_behind_carbon_offsetting_report.pdf)

## Carbon Offsetting University of Bristol Work Related Flights

Reducing Poverty and Greenhouse Gas Emissions, Improving Living Conditions and Saving Lives?

Section Name	Flight CO2	Total Flight CO2 in tonne (1,000 kg)	% Contribution	Estimated Offsetting cost (£11.50p per tonne)	Number of years of Life Saved (DALYS) in Gabon	Number of years of Life Saved (DALYS) Average for SSA
Bristol Medical School	571,376	2,116	16.27	£24,331	270	136
School of Civil, Aerospace and Mechanical Engineering	314,768	1,166	8.97	£13,404	149	75
School of Computer Science, Electrical and Electronic Engineering and Engineering Maths	301,724	1,117	8.59	£12,848	142	72
School of Physics	220,006	815	6.27	£9,368	104	52
International	171,387	635	4.88	£7,298	81	41
School of Chemistry	161,153	597	4.59	£6,862	76	38
School of Geographical Sciences	160,535	594	4.57	£6,836	76	38
School of Earth Sciences	129,430	479	3.69	£5,511	61	31
School of Economics, Finance and Management	127,511	472	3.63	£5,430	60	30
School of Education	119,613	443	3.41	£5,093	56	28
School of Cellular and Molecular Medicine	105,044	389	2.99	£4,473	50	25
School of Biological Sciences	99,006	367	2.82	£4,216	47	24
School of Law	97,280	360	2.77	£4,142	46	23
School of Humanities	85,126	315	2.42	£3,625	40	20
Bristol Veterinary School	78,515	291	2.24	£3,343	37	19
School for Policy Studies	78,005	289	2.22	£3,322	37	19
<b>UoB Total</b>	<b>3,510,828</b>	<b>13,000,000</b>	<b>100.00</b>	<b>£149,500</b>	<b>1,657</b>	<b>835</b>