

Problemi del Mondo



Segni vitali della Terra

Buco dell'Ozono

Effetto serra e gas serra

Piogge acide

Scioglimento ghiacciai

Degradazione del suolo

Crescita e sviluppo economico

Perdita di biodiversità

Cambiamento Climatico

Picco del Petrolio e delle risorse

Segni vitali della Terra

6/10/2020



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Understanding our planet to benefit humankind

Carbon Dioxide

↑ **419** parts per million (current)

+

Global Temperature

↑ **1.01** °C since 1880

+

Arctic Sea Ice Minimum Extent

↓ **12.6** percent per decade since 1979

+

Ice Sheets

↓ **427** billion metric tons per year

+

Sea Level

↑ **4** inches since January 1993

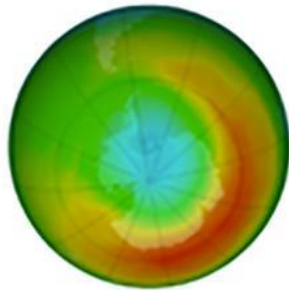
+

Ocean Warming

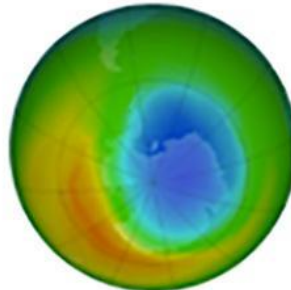
↑ **337** zettajoules since 1955

+

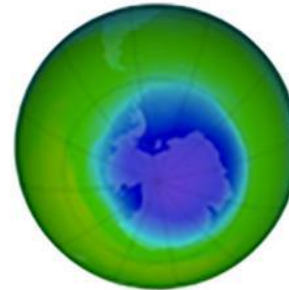
Ozono



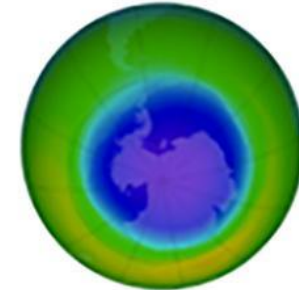
1971



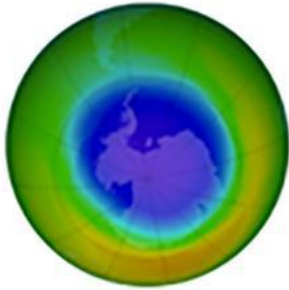
1982



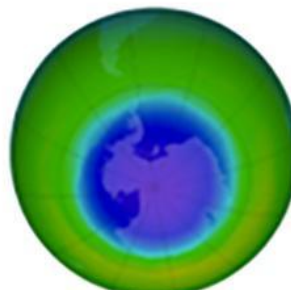
1985



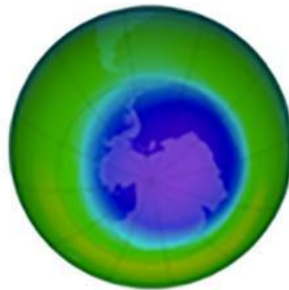
1987



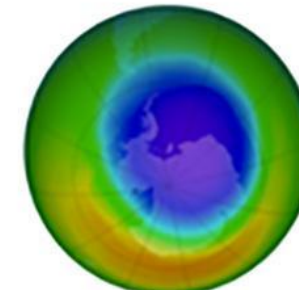
1989



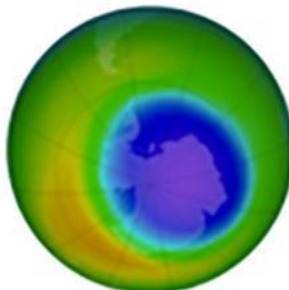
1990



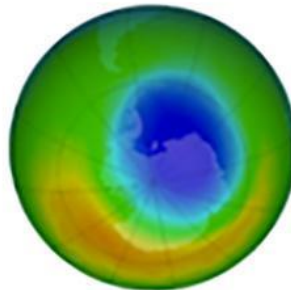
1998



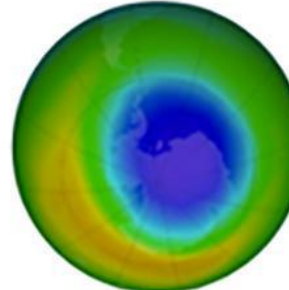
2000



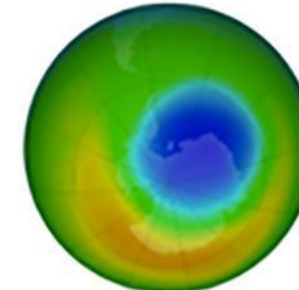
2009



2012



2017

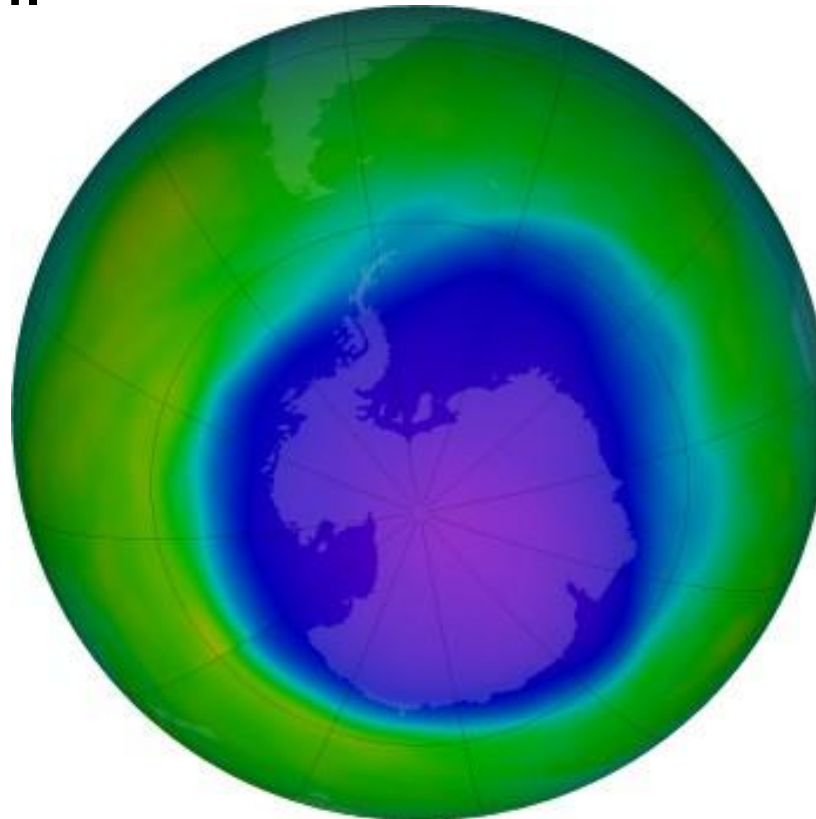


2019

Ozono Ottobre 2022

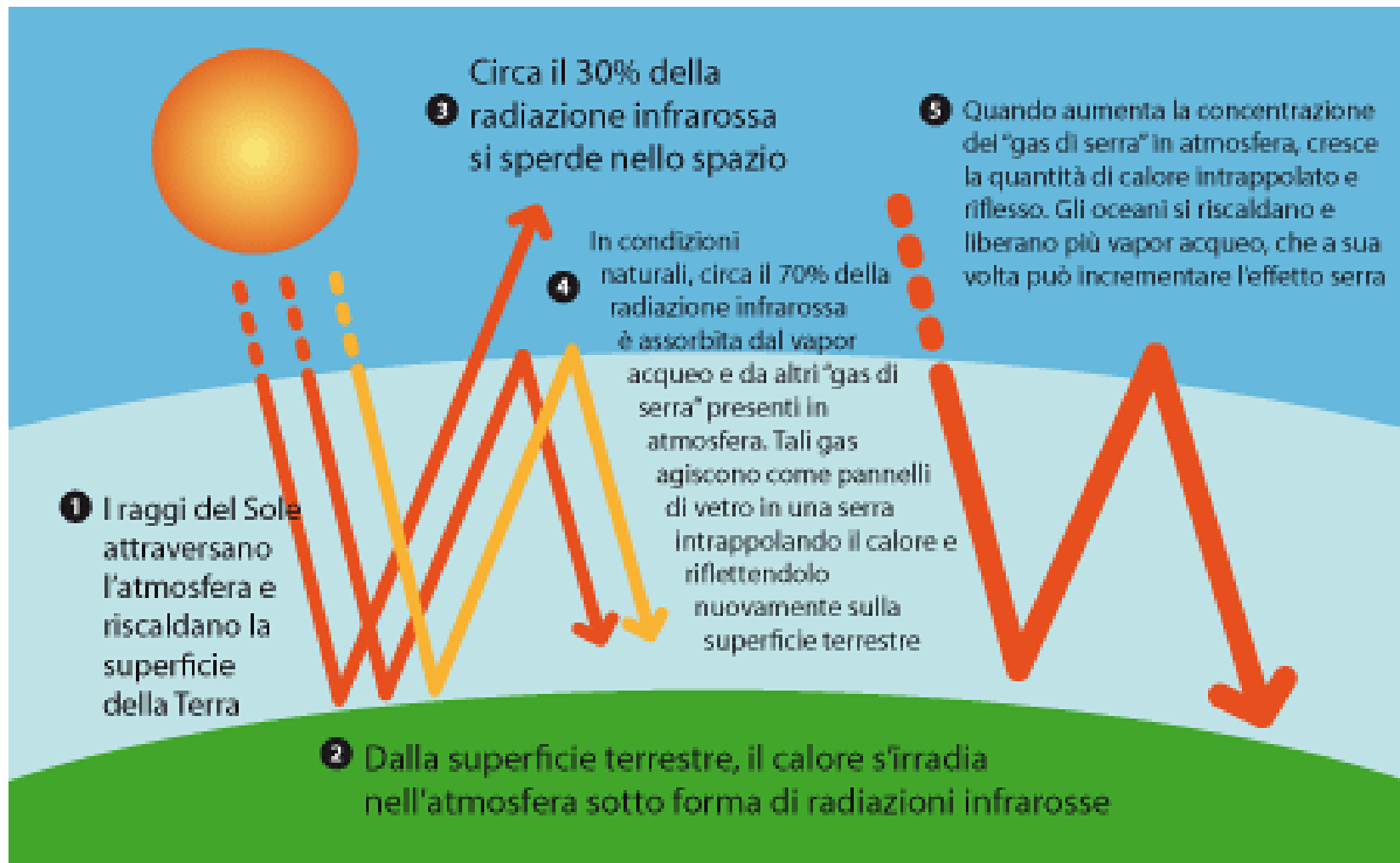


- <https://ozonewatch.gsfc.nasa.gov/monthly/SH.html>



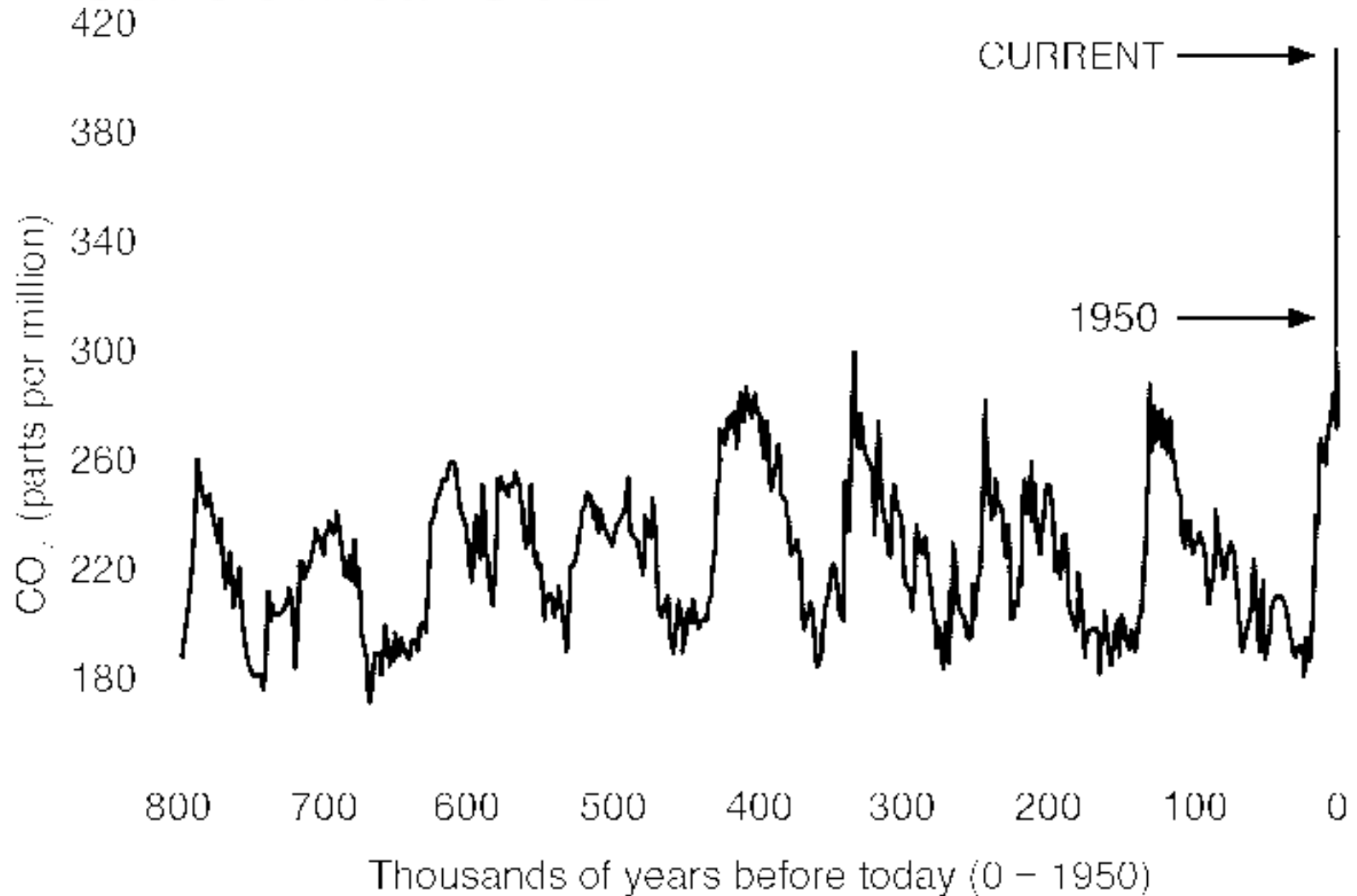
CO₂, N₂O, CH₄, SF₆, HFCs e PFC

Effetto Serra

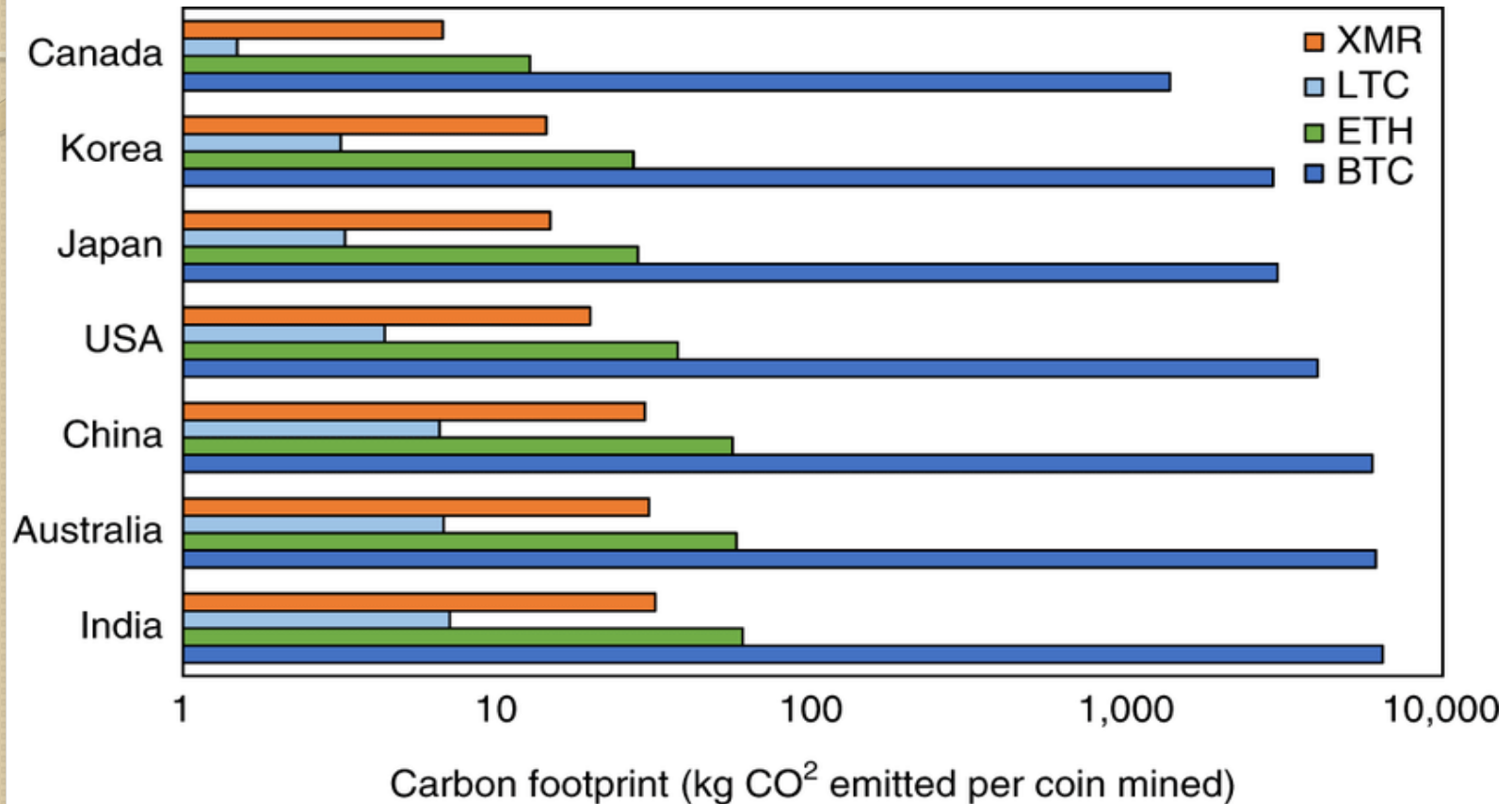


CO₂, N₂O, CH₄, SF₆, HFCs e PFC

Gas serra: Anidride Carbonica CO_2



Gas serra: Anidride Carbonica Co2



Bitcoin (BTC) produces significantly more CO₂ emissions than Ethereum (ETH), Litecoin (LTC) or Monero (XMR)

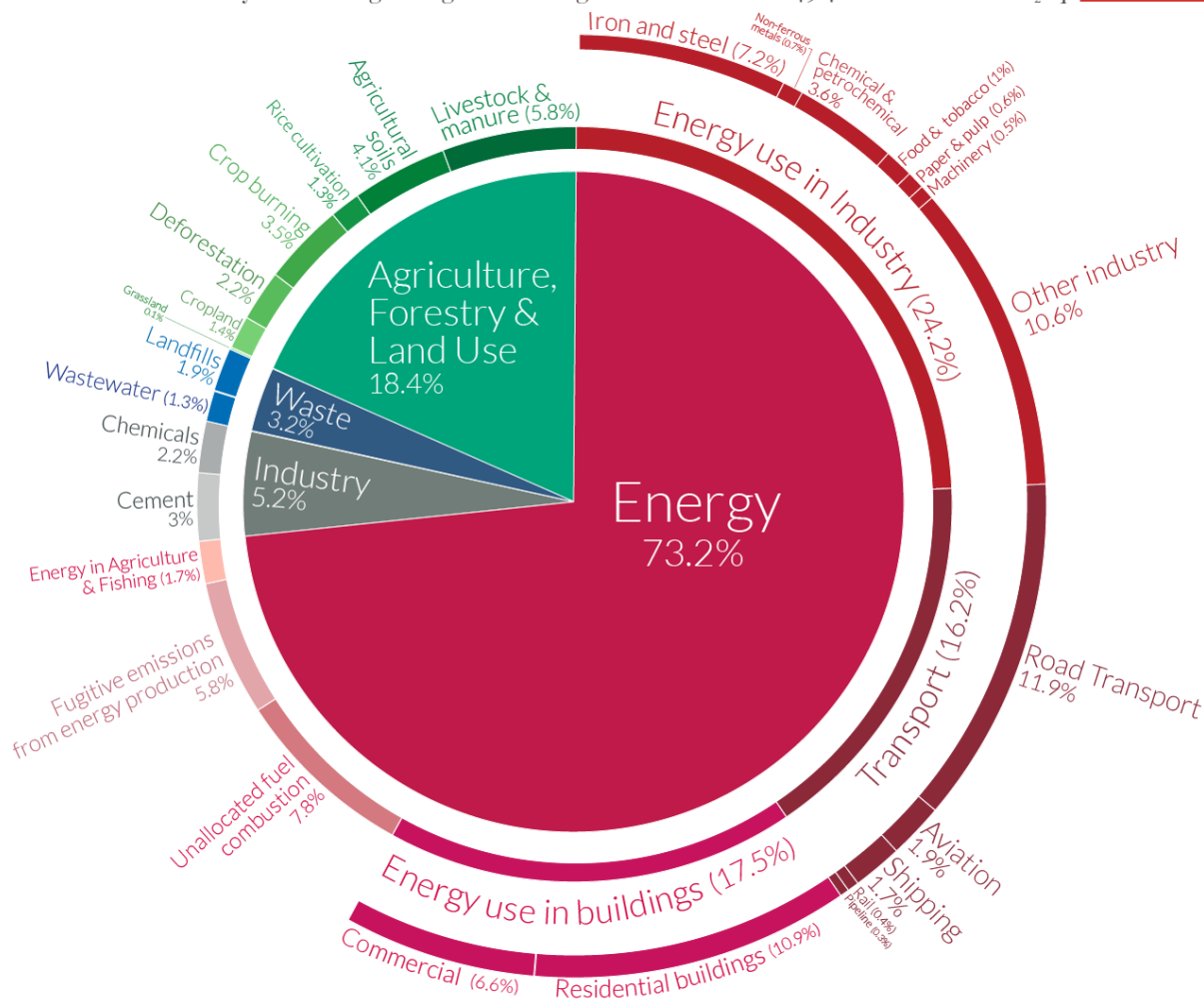
https://www.researchgate.net/figure/The-carbon-footprint-of-any-cryptocurrency-would-depend-on-the-energy-demand-of-the_fig3_328744792

Gas serra: Anidride Carbonica Co2

Global greenhouse gas emissions by sector

This is shown for the year 2016 – global greenhouse gas emissions were 49.4 billion tonnes CO₂eq.

Our World
in Data



OurWorldinData.org – Research and data to make progress against the world's largest problems.

Source: Climate Watch, the World Resources Institute (2020).

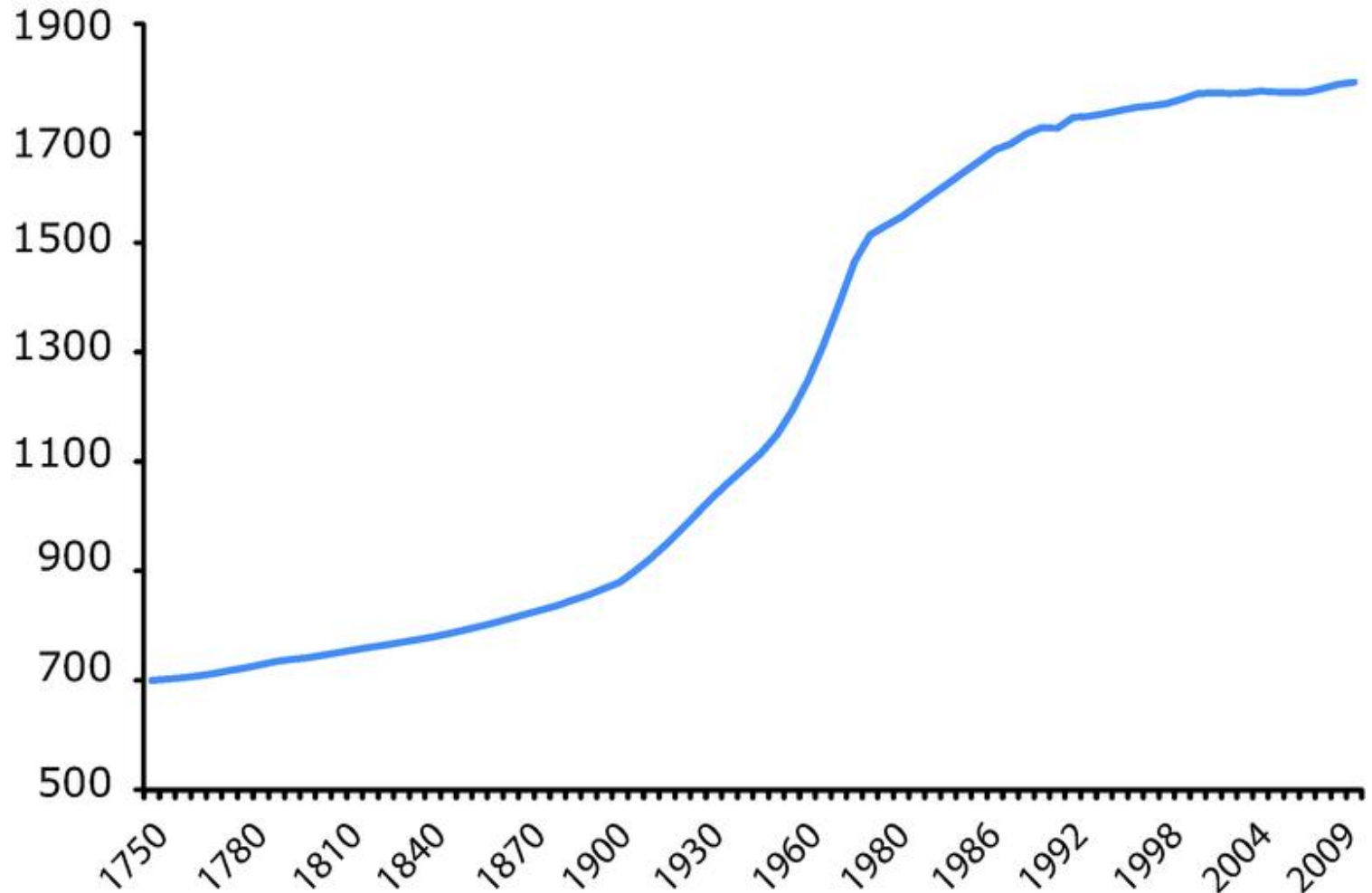
Licensed under CC-BY by the author Hannah Ritchie (2020).

<https://ourworldindata.org/emissions-by-sector>

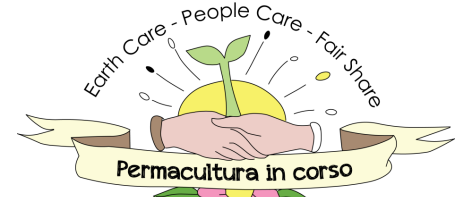
Gas serra: Metano CH₄



CH₄ concentration (ppb)



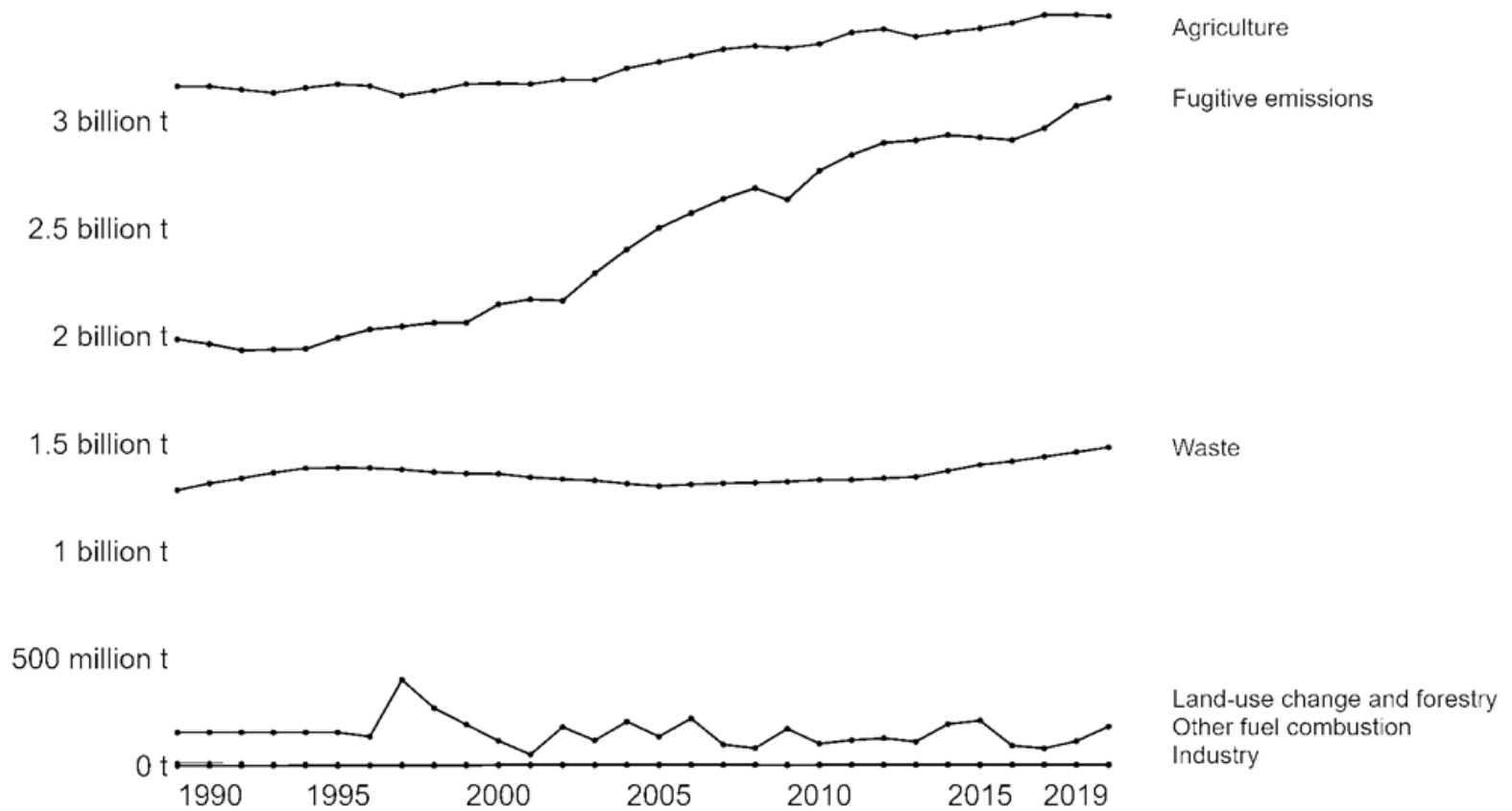
Gas serra: Metano CH₄



Our World
in Data

Methane emissions by sector, World

Methane (CH₄) emissions are measured in tonnes of carbon dioxide equivalents (CO₂e) based on a 100-year global warming potential value.

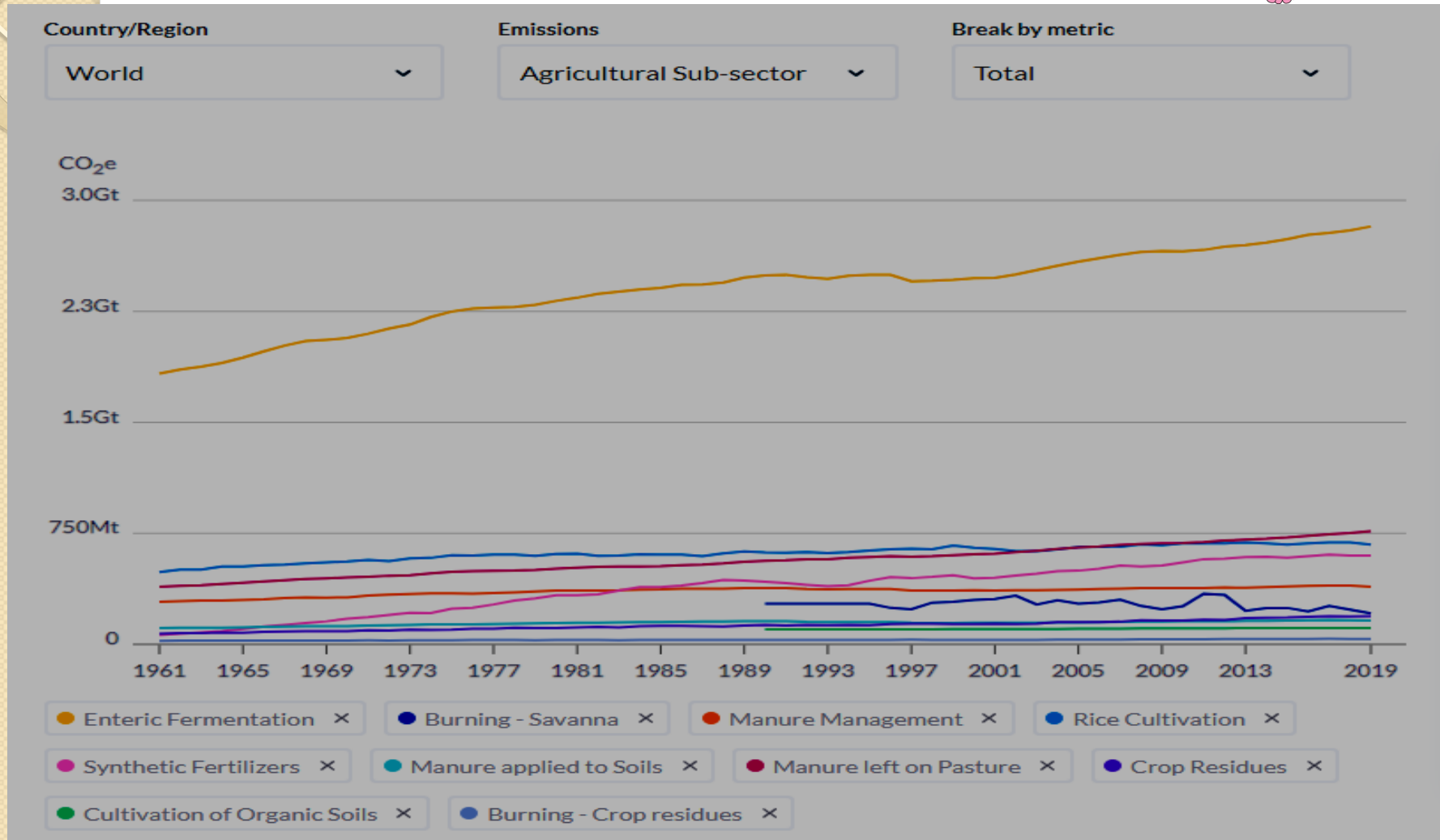


Source: Our World in Data based on Climate Analysis Indicators Tool (CAIT).

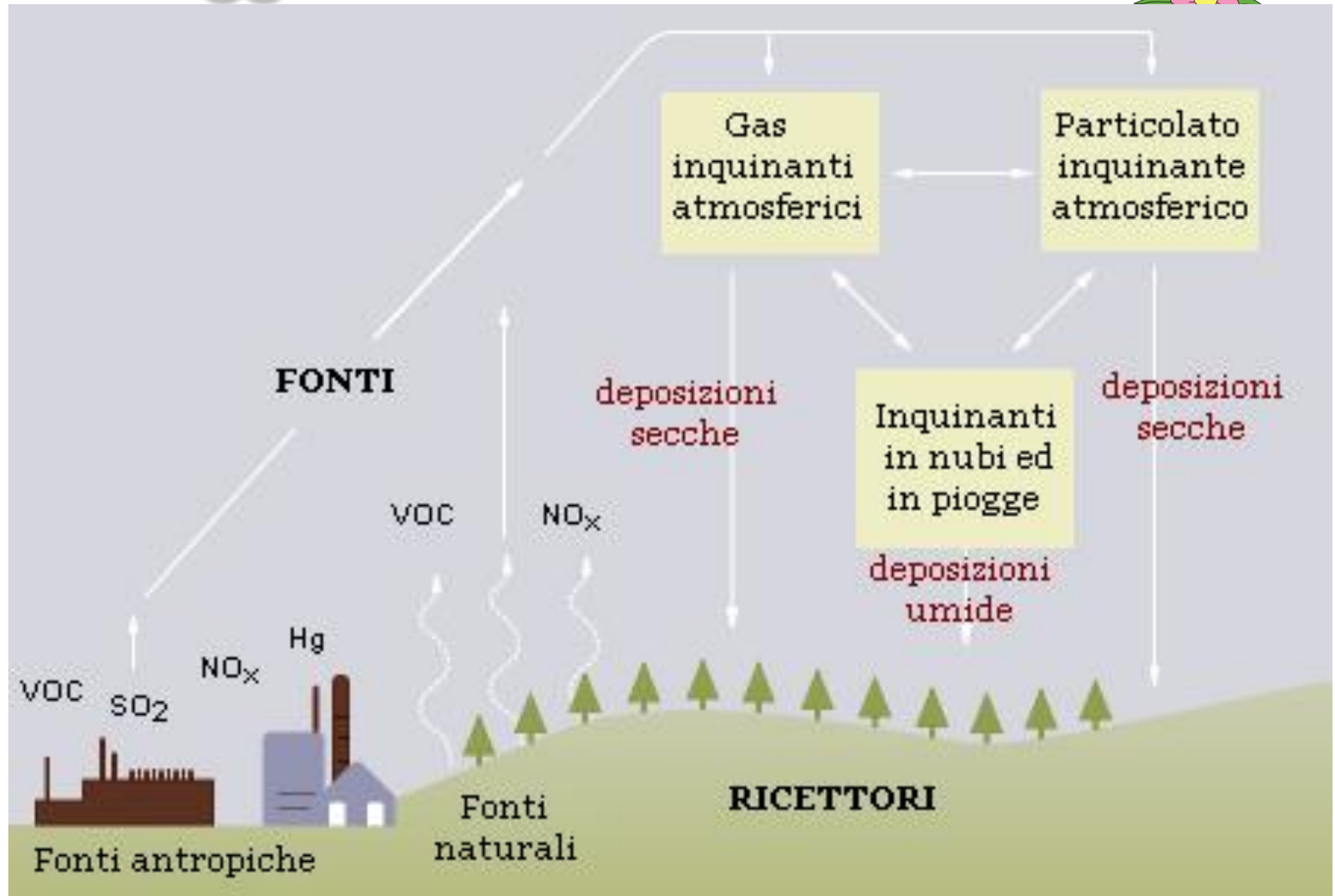
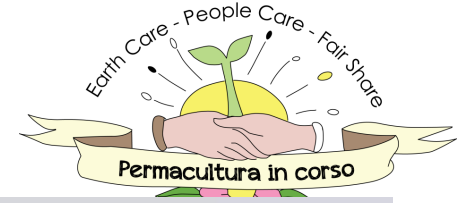
[OurWorldInData.org/co2-and-other-greenhouse-gas-emissions](https://ourworldindata.org/co2-and-other-greenhouse-gas-emissions) • CC BY

<https://ourworldindata.org/>

Gas serra e agricoltura



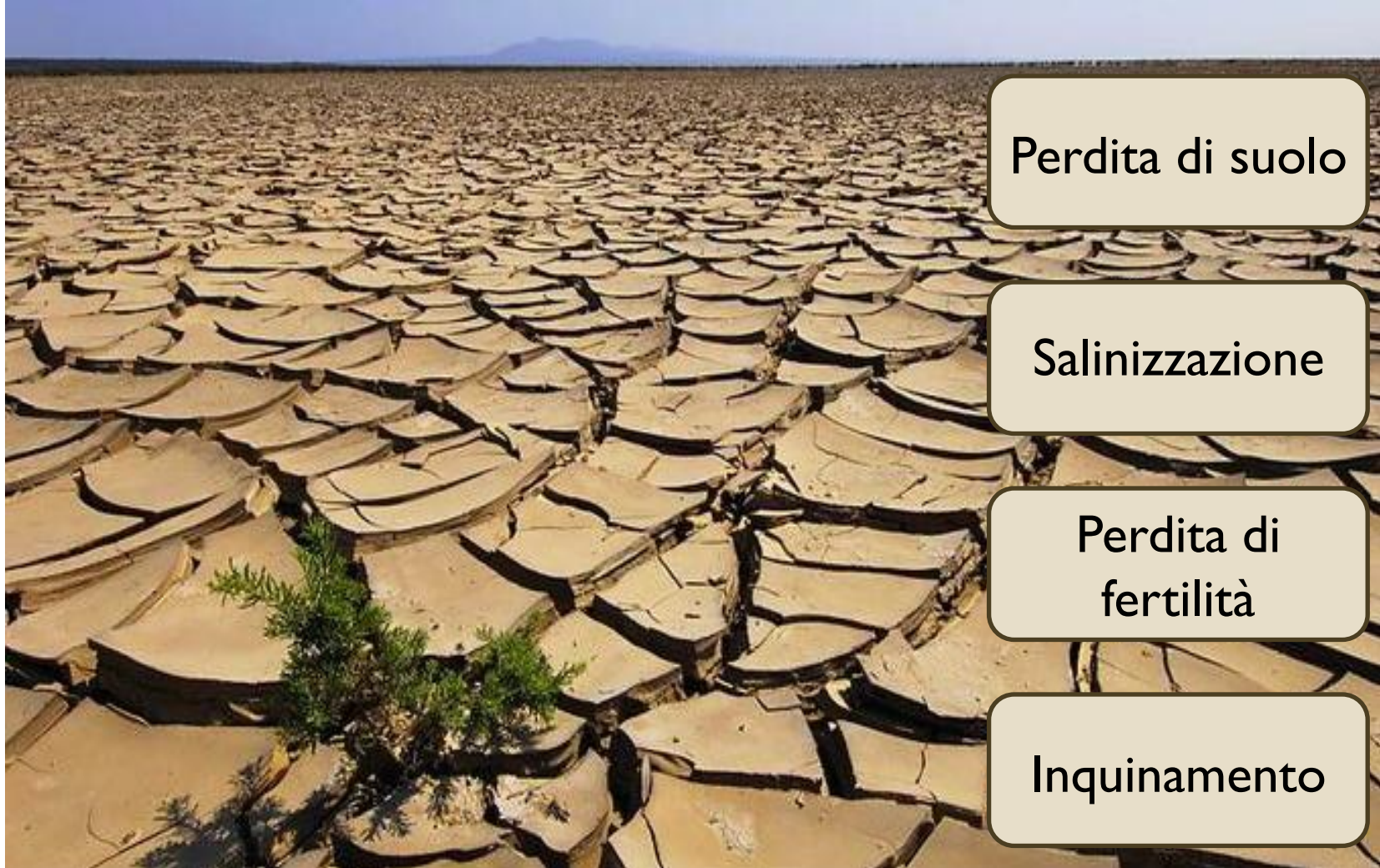
Piogge acide



Scioglimento ghiacciai



Degradazione del suolo



Perdita di suolo

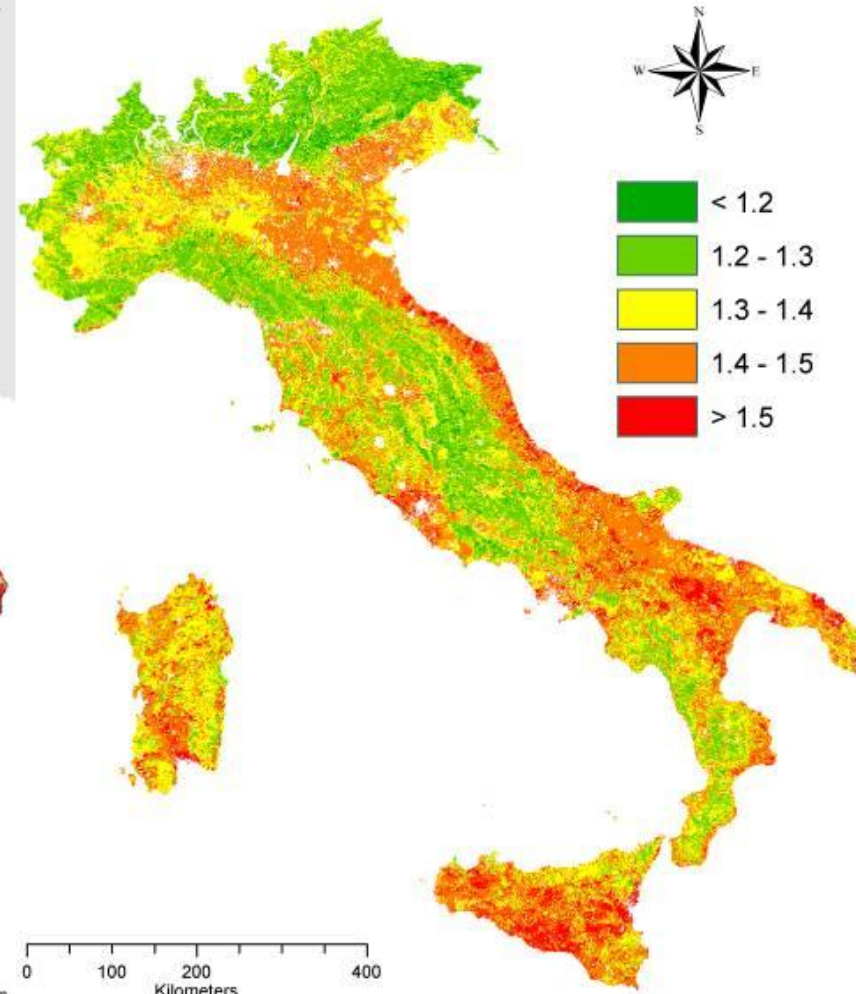
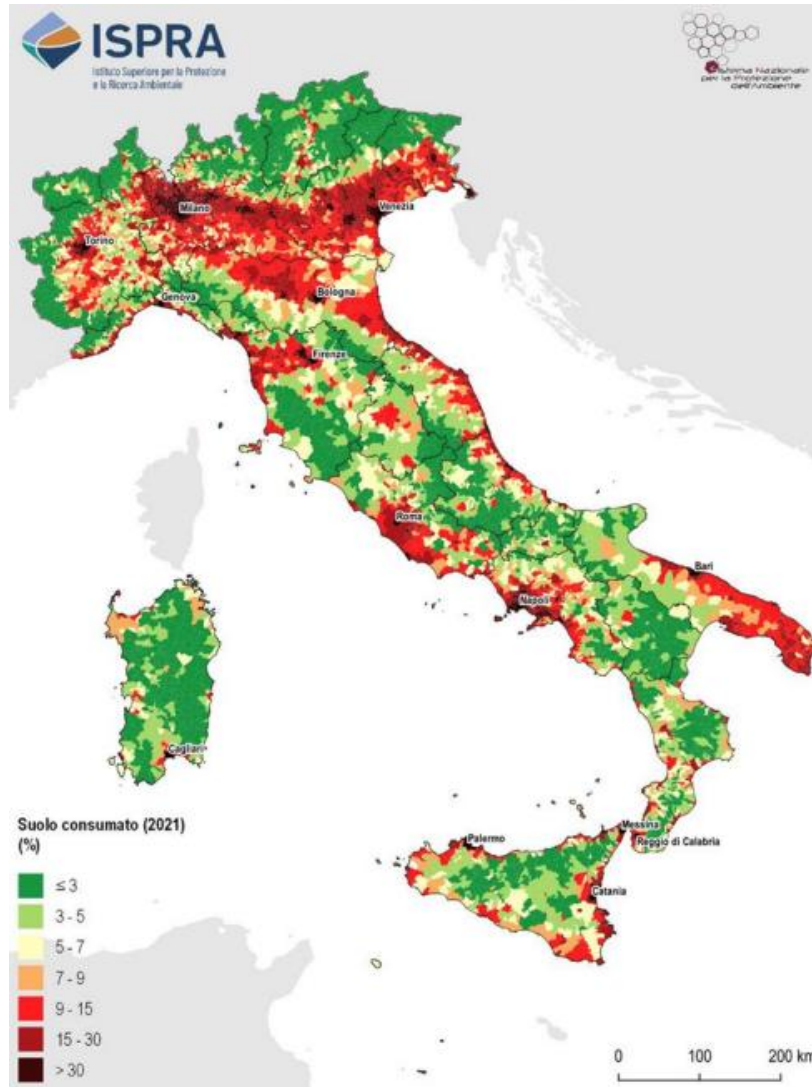
Salinizzazione

Perdita di
fertilità

Inquinamento

Affligge circa 3.5 miliardi di persone

Consumo del suolo



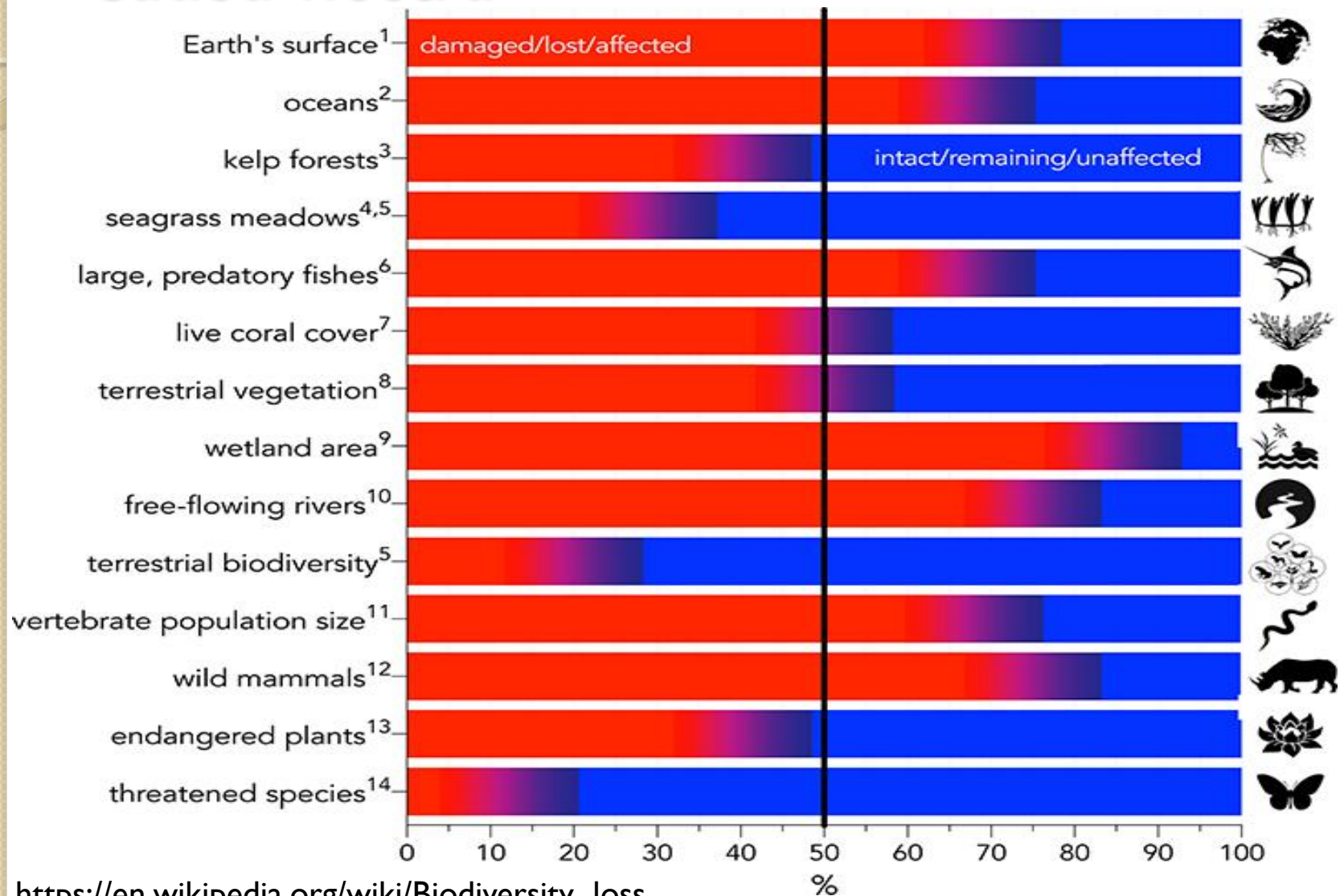
Suolo consumato a livello comunale (% 2021).
Fonte: elaborazioni ISPRA su cartografia SNPA

<https://protectaweb.it/ambiente/paesaggio-e-desertificazione-la-geografia-del-rischio-in-italia/>

Crescita e sviluppo economico



Perdita di biodiversità a causa nostra



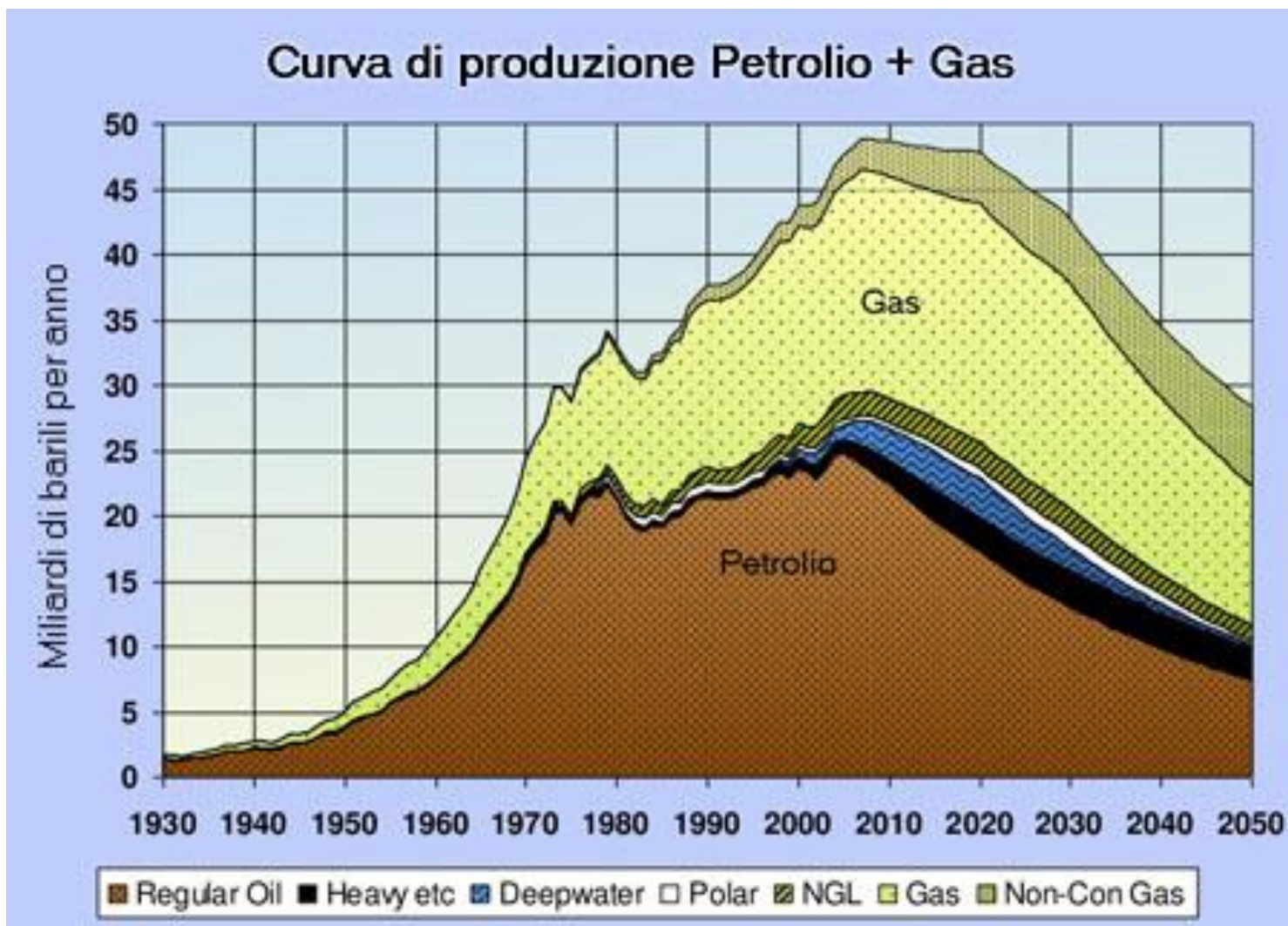
https://en.wikipedia.org/wiki/Biodiversity_loss

Cambiamento Climatico



Eventi intensi e poco prevedibili, concentrati in pochi giorni invece che su mesi, calamità “naturali” estreme in periodi dove prima erano assenti.

Picco del Petrolio e Gas



Picco delle risorse



- **Fosforo: 2033**

https://www.researchgate.net/figure/Peak-phosphorus-curve-indicating-a-peak-in-production-by-2033-derived-from-US-Geological_fig4_227439251

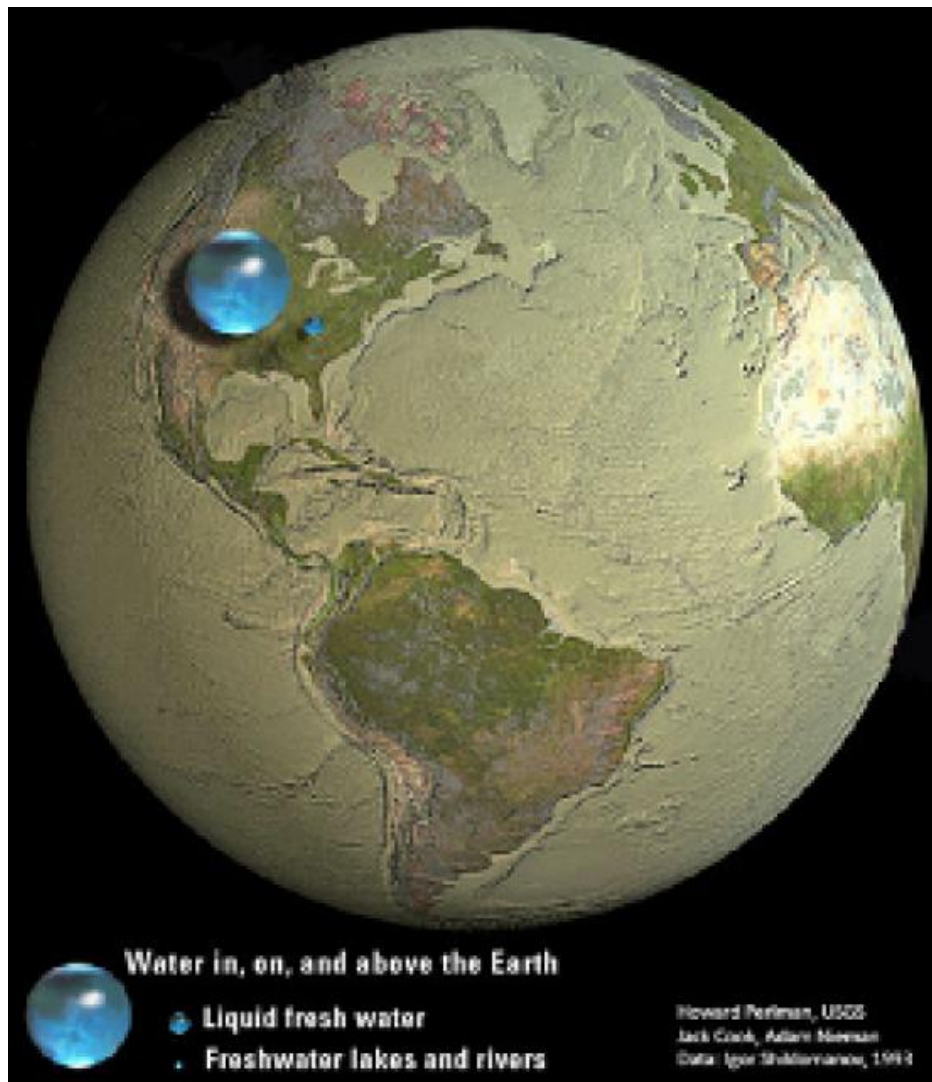
- **Oro: 2015**

- **Rame: stima 2030-2040**

- **Acqua dolce: ?**

- **Suolo: ?**

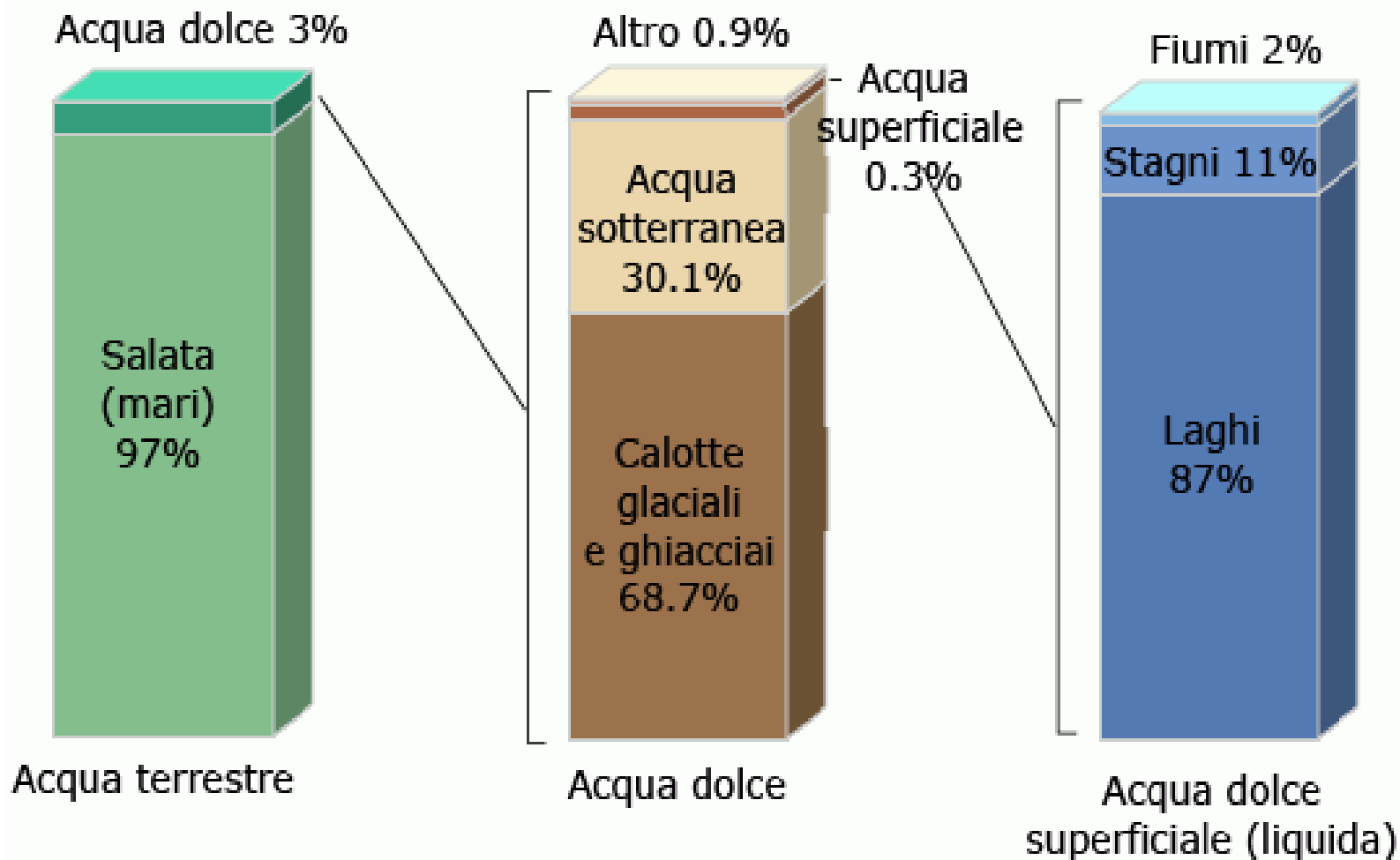
Acqua sul pianeta



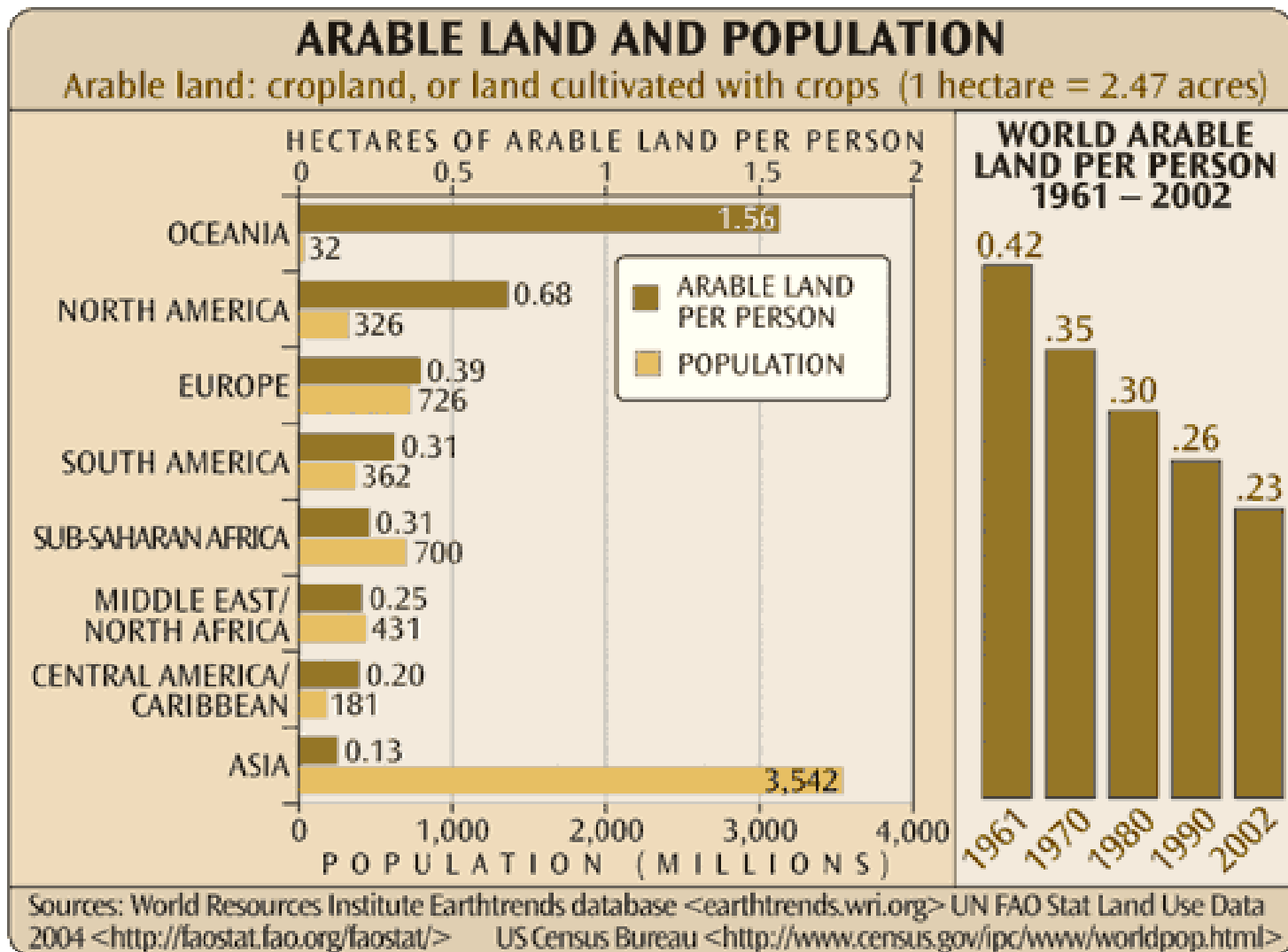
Acqua sul pianeta



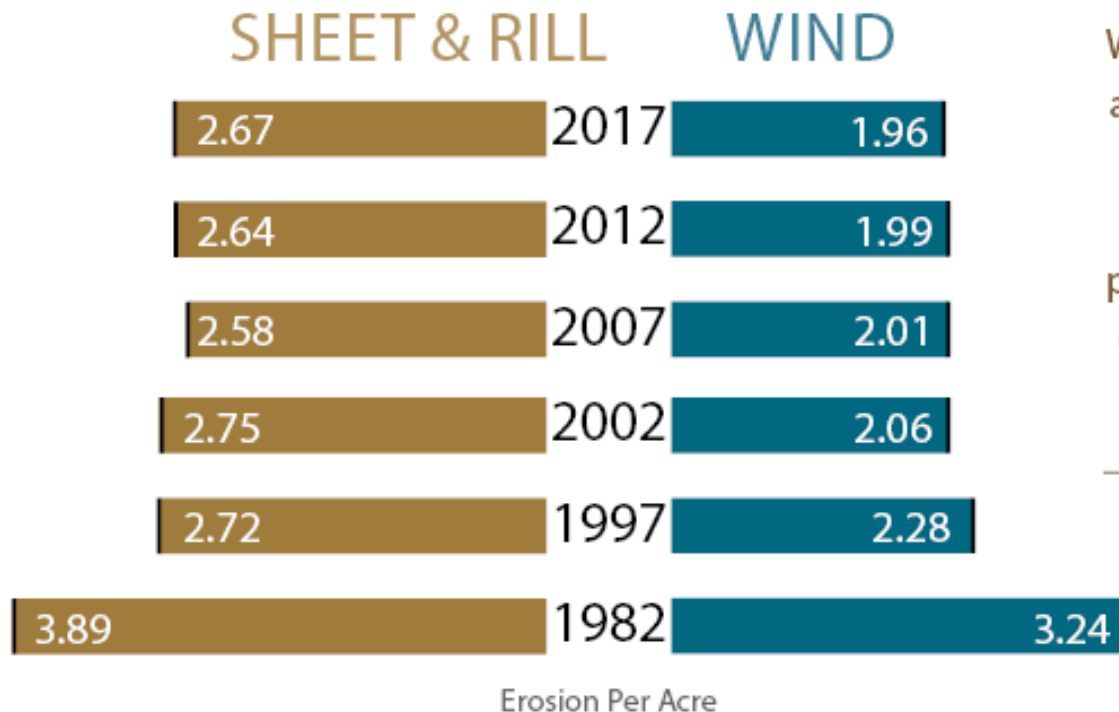
Distribuzione dell'acqua globale



Suolo 1° prodotto export dal 1940

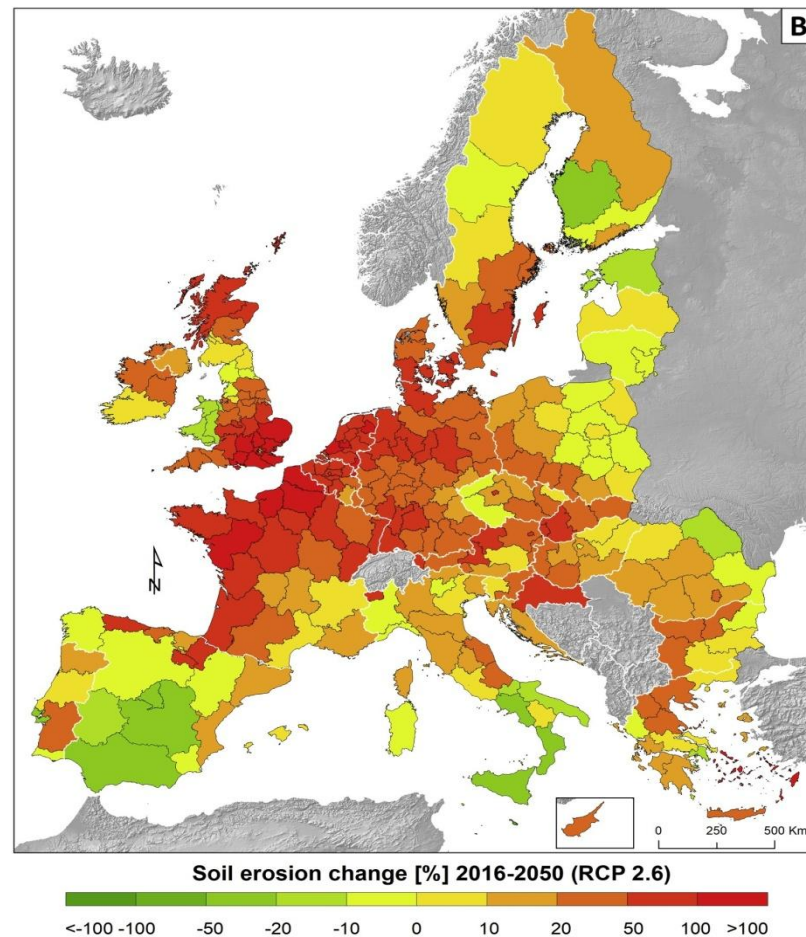
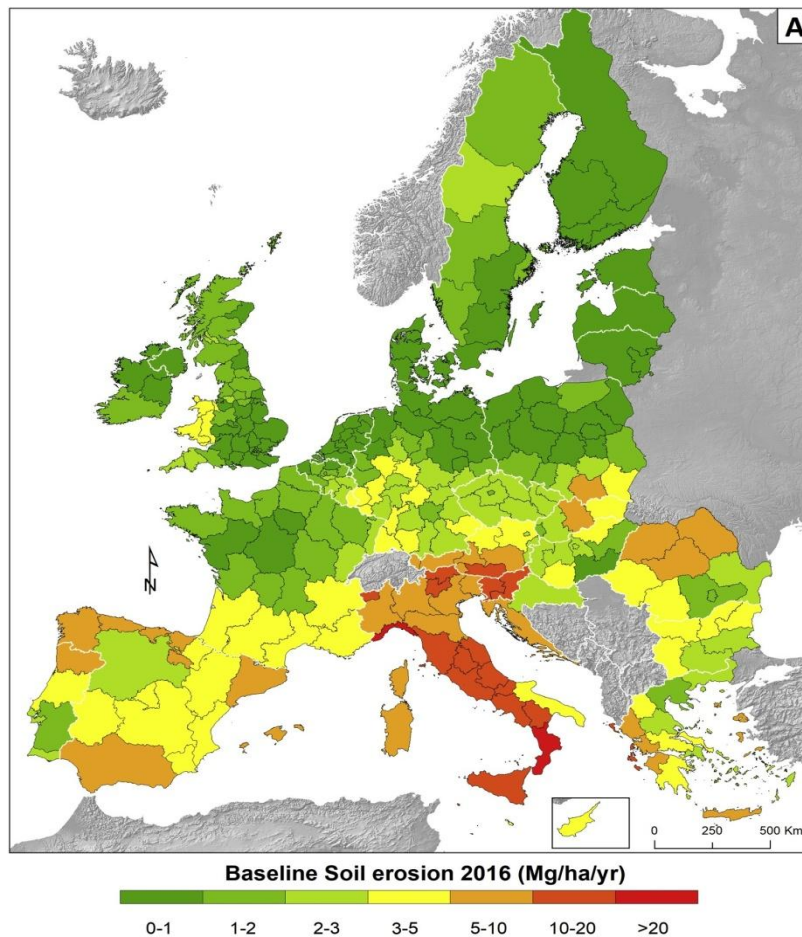


Suolo 1° prodotto export dal 1940



While soil erosion levels are improving, they still take a big bite out of U.S. farm operations' productivity. Some soils experts say current levels are unsustainable.

Suolo 1° prodotto export dal 1940



<https://esdac.jrc.ec.europa.eu/>

Altri picchi

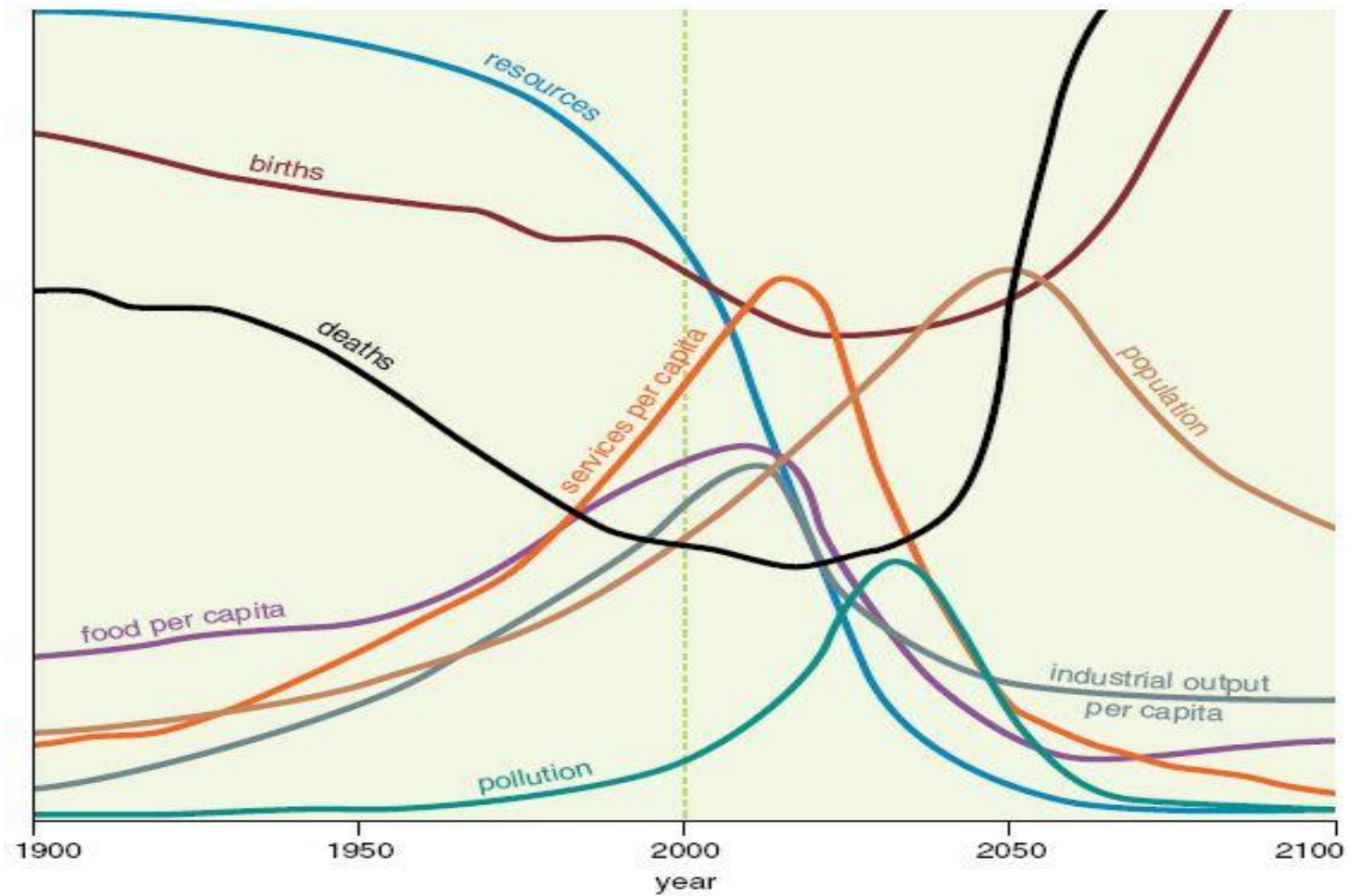


Figure 7. The original projections of the limits-to-growth model examined the relation of a growing population to resources and pollution, but did not include a timescale between 1900 and 2100. If a halfway mark of 2000 is added, the projections up to the current time are largely accurate, although the future will tell about the wild oscillations predicted for upcoming years.

Noi cosa possiamo fare?



- Vediamolo insieme!



www.permaculturaincorso.it