EMERGÈNCIA CLIMÀTICA

Gabinet d’Innovació i Comunitat

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Examples of declines in nature:

- **Ecosystem extent and condition**: Natural ecosystems have declined by 47% on average, relative to their earliest estimated states.
- **Species extinction risk**: Approximately 25% of species are already threatened with extinction in most animal and plant groups studied.
- **Ecological communities**: Biotic integrity—the abundance of naturally-present species—has declined by 23% on average in terrestrial communities.*
- **Biomass and species abundance**: The global biomass of wild mammals has fallen by 82%.* Indicators of vertebrate abundance have declined rapidly since 1970.
- **Nature for indigenous peoples and local communities**: 72% of indicators developed by indigenous peoples and local communities show ongoing deterioration of elements of nature important to them.*
Què és el canvi climàtic?
Composite Antarctic CO₂ record (0-800 kyr before present) with current Mauna Loa readings

You are here: ~410 ppm

Natural Variability

Emergence of homo sapiens

Global temperature anomalies averaged and adjusted to early industrial baseline (1881–1910)
Source: NASA GISS, NOAA NCEI, ESRL
The Greenhouse Effect

1. The sun’s radiation travels toward the earth.
2. About half is reflected or absorbed by clouds and the atmosphere.
3. The rest reaches the earth, where it is absorbed by oceans and land.
4. The earth also releases heat back toward space.
5. Some of this heat passes directly through the atmosphere.
6. But most of it is captured and retained by greenhouse gases.
Anomalia de la temperatura mitjana anual a Barcelona (1780-2018)
A 4°C rise in global average temperatures would force humans away from equatorial regions

Canada, Siberia, Scandinavia, and Alaska
The vast majority of humanity will live in high-latitude areas, where agriculture will be possible.

Southern Europe
Saharan deserts will expand into southern and central Europe.

Hindu Kush, Karakoram and Himalayas
Two-thirds of the glaciers that feed many of Asia’s rivers will be lost.

New Zealand, Tasmania, Western Antarctica and Patagonia
Some of the only habitable parts of the southern hemisphere – likely to be very densely populated.

Equatorial belt
High humidity causing heat stress across tropical regions will render them uninhabitable for much of the year. To the north and south will lie belts of inhospitable desert.

Oceanic dead zones
Coral reefs, shellfish and plankton will be wiped out by rising acidity and algae starving the oceans of oxygen. Without prey, larger sea life will decline rapidly.
CO₂ emissions from passenger transport

grams of CO₂ per passenger kilometre

Note: The figures have been estimated with an average number of passengers per vehicle. The addition of more passengers results in fuel consumption – and hence also CO₂ emissions – penalising the vehicle becomes heavier, but the final figure in grams of CO₂ per passenger is obviously lower. Inland ship emission factor is estimated to be 245 gCO₂/km but data availability is still not comparable to that of other modes. Estimations based on TRACCS database, 2013 and TERM027 indicator.

Source: EEA report TERM 2014
eea.europa.eu/transport