The global carbon cycle

Anthropogenic fluxes 2009–2018 average GtC per year

- Fossil CO₂ $E^{FF}$
- Land uptake $S^{LAND}$
- Ocean uptake $S^{OCEAN}$
- Land use change $E^{LUC}$
- Atmospheric increase $G^{ATM}$
- Budget imbalance $B^{IM}$
- Carbon cycling GtC per year

Stocks GtC

- Gas reserves 385–1135 GtC
- Oil reserves 175–265 GtC
- Coal reserves 445–540 GtC
- Permafrost 1700 GtC
- Soils 1500–2400 GtC
- Rivers and lakes
- Coasts 10–45 GtC
- Surface sediments 1750 GtC
- Organic carbon 700 GtC
- Marine biota 3 GtC
- Dissolved inorganic carbon 38 000 GtC

Budget imbalance +0.4

860 GtC

Carbon increase $385-1135$ GtC