

## Hintergrund

[www.klimaseite.info](http://www.klimaseite.info), 14.12.2022

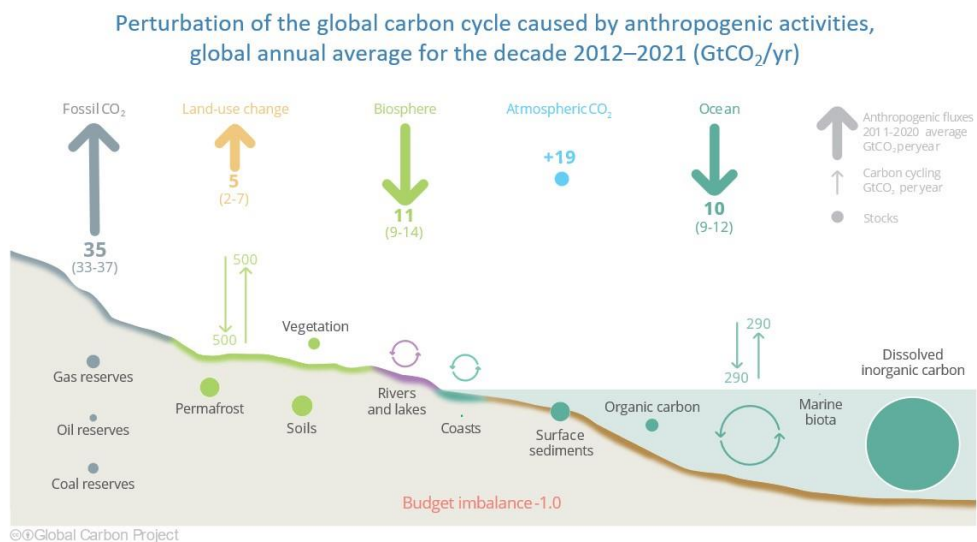
### Sechs Grafiken, die die Welt verändern (sollten)

Schneller als der IPCC inventarisiert das „Global Carbon Project“, eine Kooperation von rund 100 WissenschaftlerInnen weltweit, die jährlichen Emissionen der wichtigsten Treibhausgase und berechnet das verbleibende, stetig schrumpfende Budget zum Erreichen des Klimaschutzziels von Paris 2015 (COP 21). Die folgenden Grafiken stammen von der GCP-Website [www.globalcarbonproject.org](http://www.globalcarbonproject.org).

### 1. Quellen und Senken für Kohlendioxid



### Anthropogenic perturbation of the global carbon cycle



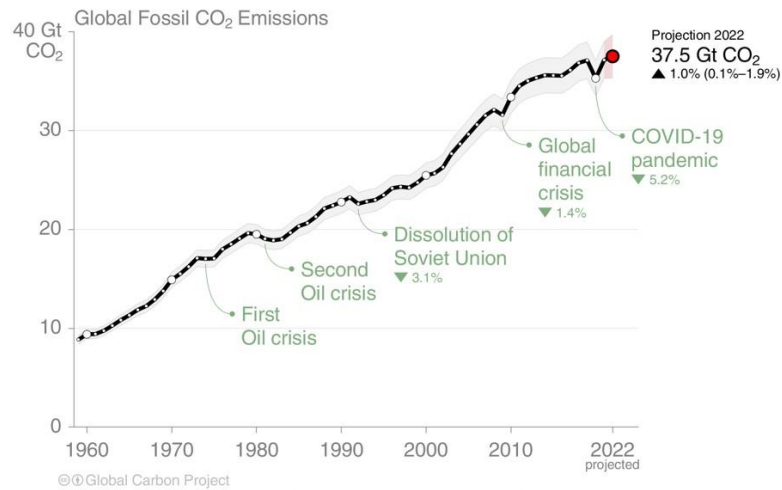
The budget imbalance is the difference between the estimated emissions and sinks.

Source: [NOAA-ESRL](#); [Friedlingstein et al 2022](#); [Canadell et al 2021 \(IPCC AR6 WG1 Chapter 5\)](#); [Global Carbon Project 2022](#)

## 2. Kohlendioxid-Emissionen aus fossilen Quellen

### Global Fossil CO<sub>2</sub> Emissions

Global fossil CO<sub>2</sub> emissions have risen steadily over the last decades. Emissions are set to grow again in 2022.

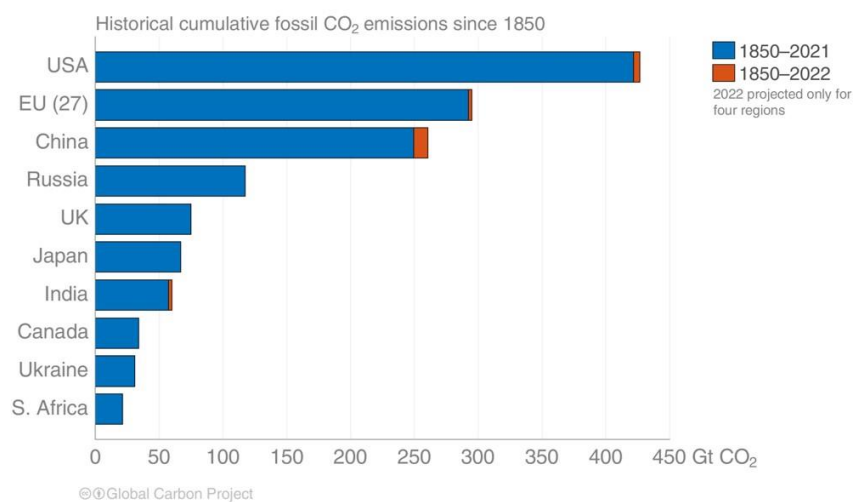


When including cement carbonation, the 2022 estimate is  $36.6 \pm 2$  GtCO<sub>2</sub>.  
 The 2022 projection is based on preliminary data and modelling.  
 Source: [Friedlingstein et al 2022](#); [Global Carbon Project 2022](#)

## 3. Historische CO<sub>2</sub>-Emissionen bis zur Gegenwart nach Ländern aufgeschlüsselt

### Historical cumulative fossil CO<sub>2</sub> emissions

The USA and EU have the highest accumulated fossil CO<sub>2</sub> emissions since 1850, but China is not far behind.



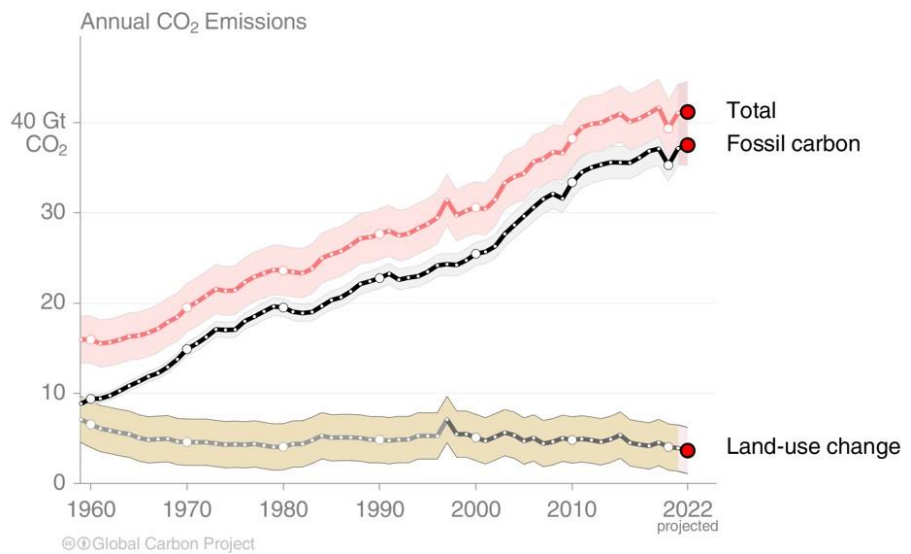
Calculated using territorial emissions.  
 Source: [Friedlingstein et al 2022](#); [Global Carbon Project 2022](#)

#### 4. Alle Treibhausgase (incl. Methan, Lachgas etc.)



### Total global emissions

Total global emissions:  $41.1 \pm 3.3$  GtCO<sub>2</sub> in 2021, 49% over 1990  
 Percentage land-use change: 41% in 1960, 11% averaged 2012–2021

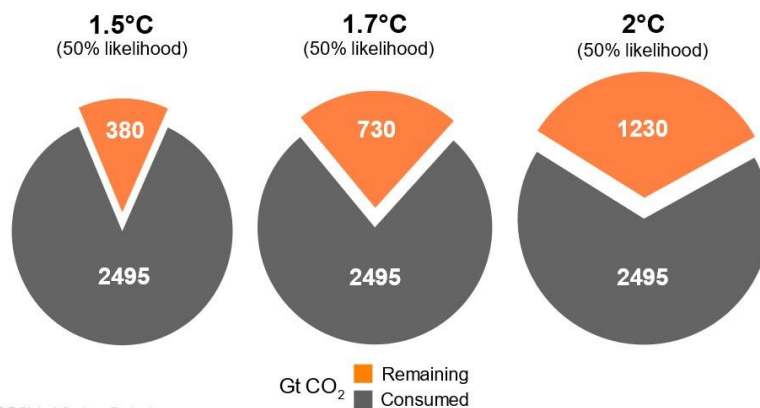


#### 5. Rest-Budget je nach Klimaschutz-Ambition



### Remaining carbon budget

The remaining carbon budget to limit global warming to 1.5°C, 1.7°C and 2°C is 380 GtCO<sub>2</sub>, 730 GtCO<sub>2</sub>, and 1230 GtCO<sub>2</sub> respectively, equivalent to 9, 18 and 30 years from 2023. 2610 GtCO<sub>2</sub> have been emitted since 1750



## 6. Absenkkurven: sportliche Talfahrten notwendig

### Remaining carbon budget

Global CO<sub>2</sub> emissions must reach zero to limit global warming

