



Simplified Global Carbon Cycle

Atmospheric Carbon Net Annual Increase
3 – 4 GtC/y

Atmosphere
(800)

  **GtC/y: Gigatons of carbon/year**

Numbers in parentheses refer to stored carbon pools.

Net terrestrial uptake
0 – 1

120

Photosynthesis

Plant biomass
(500)

Respiration

0 – 1

Microbial decomposition

Soil carbon

Soil
(2500)

6
Fossil fuels, cement, and land-use change

90

Net ocean uptake
2

Physicochemical exchange and biological pump

2

Surface ocean
(1000)

Deep ocean
(38,000)

Rock
(70,000,000)

Fossil pool
(20,000)

Reactive sediments
(3000)



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