

On Earth, carbon cycles through the land, ocean, atmosphere, living and dead biomass and the planet's interior. The global carbon cycle can be divided into the tectonically driven geological cycle and the biological/physicochemical cycles. The former operates over millions of years, whereas the latter operate over much shorter time scales (days to thousands of years). Within the geological cycle, atmospheric carbon dioxide concentration is controlled by the balance between weathering, biological drawdown, size of sedimentary reservoir, subduction, metamorphism and volcanism over time periods of hundreds of millions of years