Deforestation of tropical forests results in less carbon storage and more carbon emissions

Undisturbed tropical forest

Total carbon absorption (by photosynthesis) 30.4
Total carbon emission (by respiration) 24.5

Carbon stored in above-ground biomass 180

Carbon stored in below-ground biomass 64

Total carbon absorption (by photosynthesis) 12.3
Total carbon emission 25.1

Respiration 6.8
Burning, decay of slash and soil erosion 18.3

Carbon stored in above-ground biomass 43
Carbon stored in below-ground biomass (soil and biomass) 12

Units are in tonnes of carbon per ha per year for fluxes, and tonnes of carbon per ha for stocks

Massive deforestation in Indonesian Borneo


Source: Values based on Yadvinder Malhi and John Grace, 2000.; Frédéric Archard et al., 2004.

Note: flux values are reported as a 10 year average.

Logging concession
Oil palm concessions

Source: Riccardo Pravettoni - RHIPTO 2016