

# FOREST CO<sub>2</sub> REMOVALS METHODOLOGY

**ACTIVITY DATA**  
(Area stratified by forest type x age class)

- Pre-2000 oil palm (Removed from forest extent)
- Mangroves
- Forest Type (Europe)
- Plantations/Tree Crops
- Forest Type (United States)
- Young (<20 yr) Secondary Forests
- Primary Forests
- Old (>20 yr) Secondary Forests

X

**REMOVAL FACTORS**  
(Stratified by forest type x age class)

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**# YEARS OF GROWTH**

- No loss or gain: 23
- Loss only:  $\text{Loss Year} - 1$
- Gain only: 10
- Loss+gain:  $(23 - \text{Loss Year}) / 2 + (\text{Loss Year} - 1)$

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**GROSS CO<sub>2</sub> REMOVALS, 2001-2023**

**Biomass Gain Before Loss**

**C DENSITY IN YEAR OF LOSS**

- Aboveground biomass
- Belowground biomass
- Dead Wood
- Litter
- Soil organic Carbon

**NET FOREST GHG FLUX, 2001-2023**

# FOREST GHG EMISSIONS METHODOLOGY

**ACTIVITY DATA**  
(Loss stratified by disturbance type)

**Loss Driver**

- Commodity-Driven Deforestation
- Shifting Agriculture
- Urbanization
- Forestry
- Wildfire

**Burned Areas**

- Loss x Burned Area

**Plantations**

- Loss x Plantation x Organic Soil

**Organic Soil**

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**EMISSION FACTORS**  
(by disturbance type x C density in year of loss)

**C density in year of loss**

- Commodity-Driven Deforestation
- Shifting Agriculture
- Urbanization
- Forestry
- Wildfire

- Soil type?
- Mineral ΔC factors
- Organic drainage factors
- Fire?
- Organic soil burn factors
- Biomass combustion factors

**GROSS GHG EMISSIONS, 2001-2023**

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