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Methodology for Presented Numbers

Number of Mangroves Planted:

Own Records

CO2 Removed:

From Bernal et al., 2018: Restored mangrove ecosystems remove $23.1 \frac{t\,CO_2}{ha \cdot year}$ in the first 20 years post restoration.

Mangroves are planted in equilateral triangles with side lengths of approx. 1m. Therefore it is assumed that 11,548 seeding are plated per hectare. This leads to a removal rate of $0.005476649912 \frac{kg\,CO_2}{seedling \cdot day}$. For each planting event held by BEO, the time in days since the event is calculated. The CO2 removed by each event is then calculated as:

$$number\ of\ seedlings\ planted \cdot days\ since\ the\ event \cdot 0.005476649912 \frac{kg\,CO_2}{seedling \cdot day}$$

The sum of the CO2 removed by all events is presented as CO2 removed.

Area Restored:

Mangroves are planted in equilateral triangles with side lengths of approx. 1m. Therefore it is assumed that 11,548 seeding are plated per hectare.

$$\frac{Number\ of\ mangroves\ planted}{11{,}548 \frac{seedings}{hectare}}$$

References:

Bernal, B., Murray, L.T. & Pearson, T.R.H. Global carbon dioxide removal rates from forest landscape restoration activities. *Carbon Balance Manage* 13, 22 (2018). https://doi.org/10.1186/s13021-018-0110-8