

Role of Mangrove Forests in Blue carbon in Climate Change mitigation: A case study in Sri Lanka

The team



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Introduction

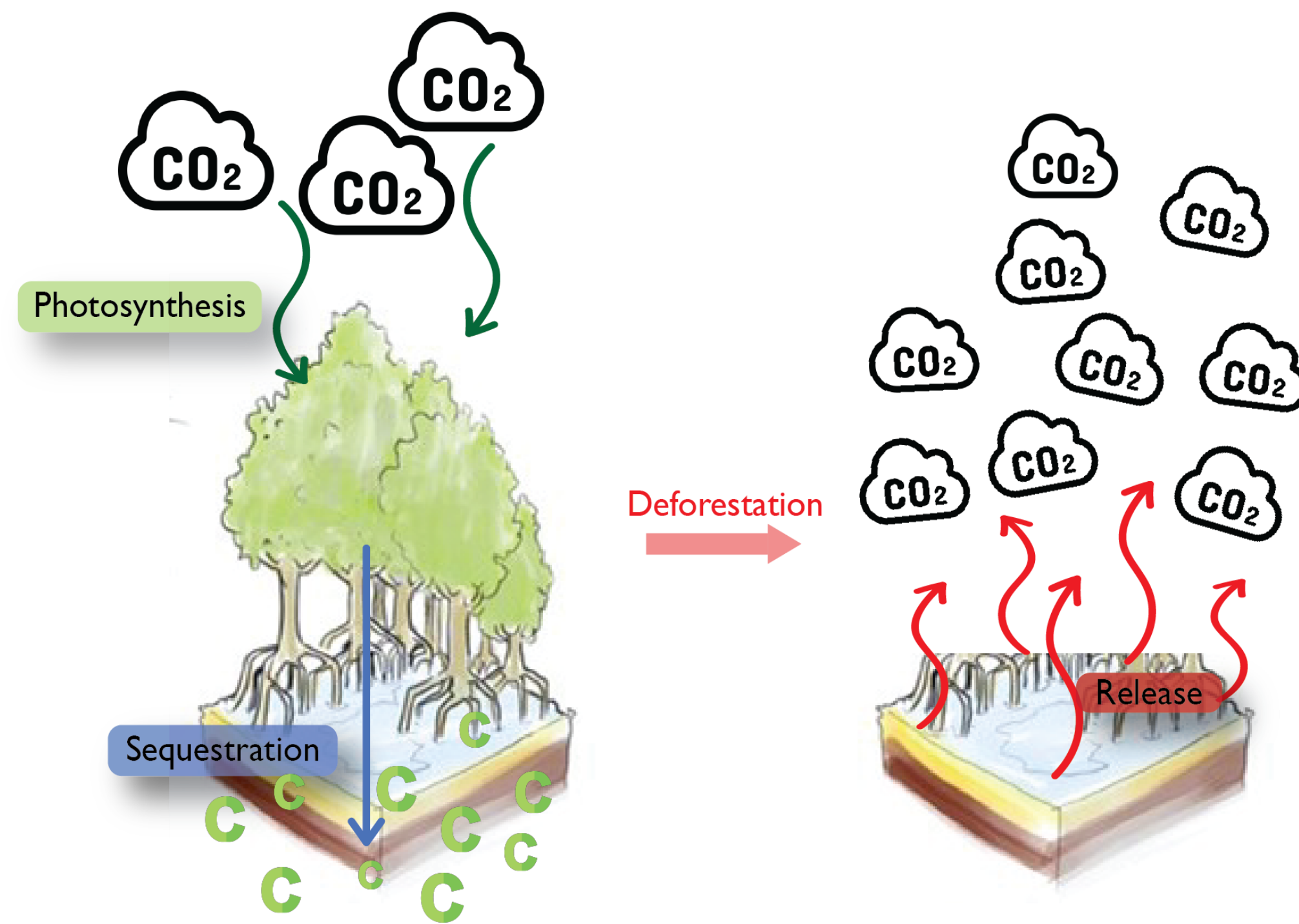
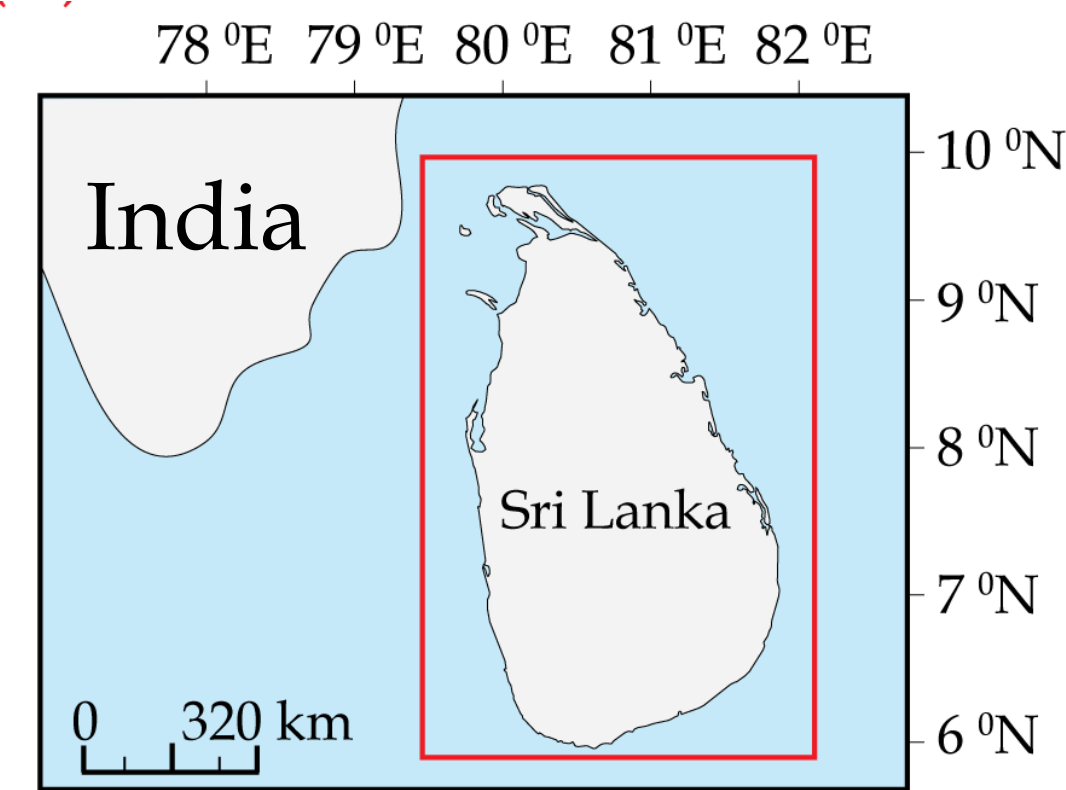


Figure 1: The process of carbon capture, sequestration and storage by mangroves and the emission of CO₂ in the phase of deforestation (Image credit: S.Ahalya)

Site description



Methodology

- Diameter at breast height measurement (DBH > 6cm)**
Allometric equations – Floral carbon
- Sediment cores (up to 45 cm depth)**
Along 10 m transects
Partitioned to three (15 cm each)
- Bulk density oven-dried (60°C)**
Measured for dry weight and volume
- Total organic carbon (%):**
(105°C); elemental analyzer
- Sediment organic carbon:**
SOC = Bulk density * soil depth interval * (%C) * TOC%

Total Ecosystem Carbon (TEC) = Aboveground carbon + Belowground carbon + Sediment organic carbon

Figure 2: Study location (above) and Research process flow diagram (below)

Key findings

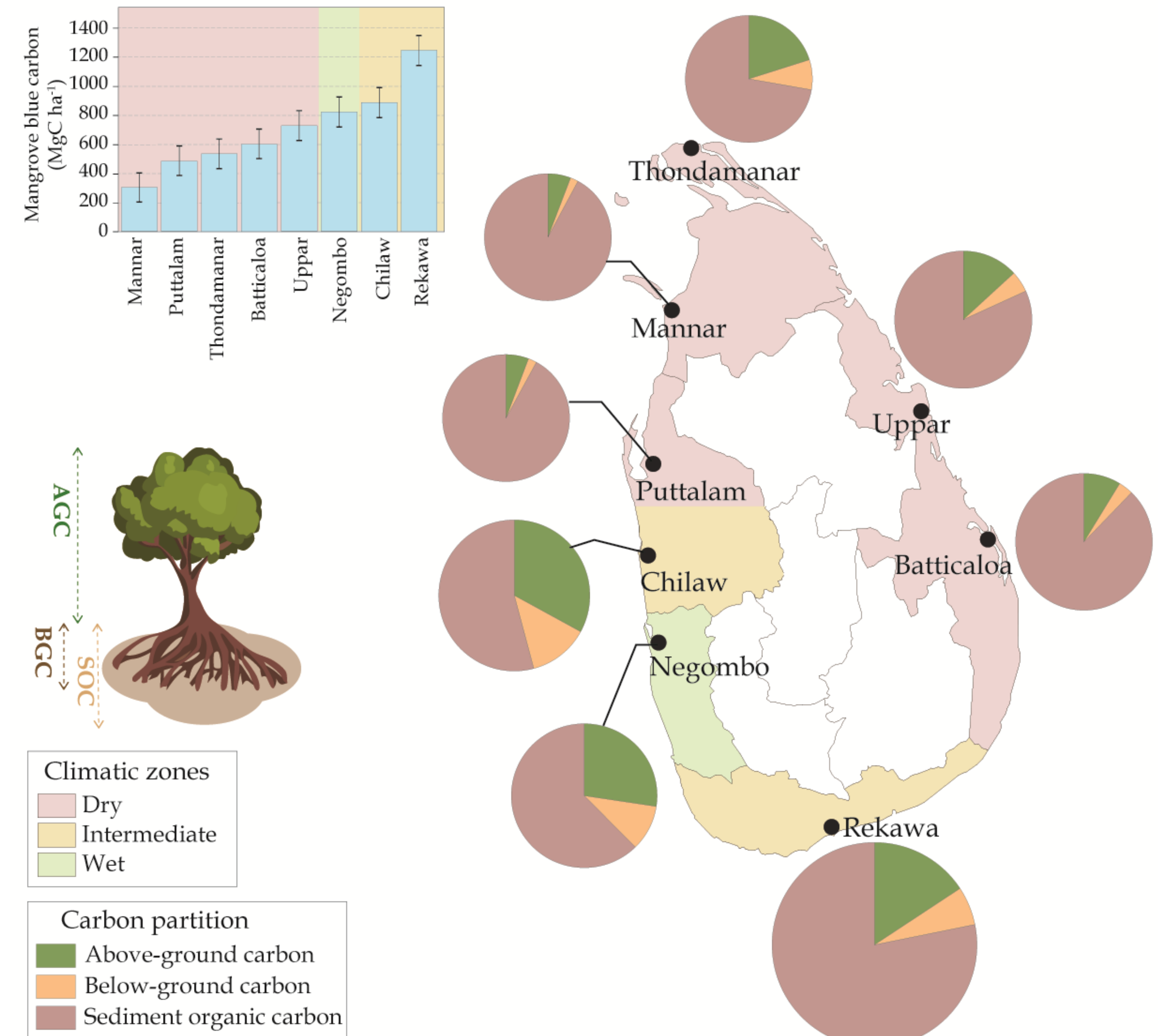


Figure 3: Key findings related to total ecosystem carbon (bar chart) and carbon partition in the study sites (pie charts)

Acknowledgements

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