



## **Comparison of carbon uptake estimates from forest inventory and Eddy-Covariance for a montane rainforest in central Sulawesi**

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Rainforests in general and montane rainforests in particular have rarely been studied over longer time periods. We aim to provide baseline information of a montane tropical forest's carbon uptake over time in order to quantify possible losses through land-use change. Thus we conducted a re-inventory of 22 10-year old forest inventory plots, giving us a rare opportunity to quantify carbon uptake over such a long time period by traditional methods. We discuss shortfalls of such techniques and why our estimate of 1.5 Mg/ha/a should be considered as the lower boundary and not the mean carbon uptake per year.

At the same location as the inventory, CO<sub>2</sub> fluxes were measured with the Eddy-Covariance technique. Measurements were conducted at 48m height with an LI 7500 open-path infrared gas analyser. We will compare carbon uptake estimates from these measurements to those of the more conventional inventory method and discuss, which factors are probably responsible for differences.