

ESTIMATION OF CARBON SEQUESTRATION POTENTIAL OF TREES IN SOUTHERN EASTERN GHATS OF TAMIL NADU, INDIA (MoES/16/25/2013 – RDEAS Dt. 03.07.2014)

The project aims to estimate carbon (C) stockpile and short-term C sequestration potential of trees in Pachamalai, Javvadhu and Kolli hills in Southern Eastern Ghats of Tamil Nadu, South India. A 10 hectare study plot will be established in each of the three hill ranges. In the experimental plots all trees with diameter at breast height (dbh) ≥ 10 cm will be measured, tagged, and identified with available floras. Aboveground biomass of trees will be estimated by a regression equation which will be developed after destructive sampling in study area. Satellite remote sensing data on biomass storage of trees in the study area will be obtained through the help of remote sensing institutes. Short-term C sequestration potential of trees will be estimated by the difference of C storage between year x and $x+1$ and $x+2$. Trees of better growth rate with efficient C sequestration potential will be identified. Results obtained from this study will be highly useful to the forest department activities regarding Agro-forestry as well as developing policy documents for REDD+. Trees with high potential of biomass, C storage, sequestration, and growth will be useful for urban forestry department to mitigate the increasing carbon dioxide concentration in the atmosphere.