

Green Audit Report of Karnatak College Campus, Dharwad 2019-20 & 2020-21

A total of 98 tree species belonging to 83 genera of 33 families were studied in 68 quadrats in the campus. Tree species such as *Peltophorum pterocarpum*, *Delonix regia*, *Senna siamea*, *Tamarindus indica* and *Pongamia pinnata* are spread throughout the campus. Whereas species such as *Bombax ceiba*, *Butea monosperma*, *Couroupita guianensis*, *Kigelia africana*, *Santalum album*, *Saraca asoca*, *Swietenia mahogany* and *Tabebuia impetiginosa* are also present. In case of *Adansonia digitata* and *Guaiacum officinale* are cultivated have representing a single specimen each in the campus or Dharwad city as such. Total number of individuals of all the tree species measured for carbon sequestration and importance value index are **1387** trees. Among these Fabaceae has the highest IVI of 3510.29 followed by Ulmaceae with IVI of 250.06 which is followed by Meliaceae with IVI of 180.27. In Karnatak College Campus the study resulted in showing *Senna siamea* is the highest carbon sequestering tree species (carbon storage of 359834.71 g/tree) followed by *Peltophorum pterocarpum*, *Tamarindus indica*, *Delonix regia* and *Holoptelea integrifolia* being the top five highest carbon sinking tree species respectively, and also with maximum tree biomass in the campus. Analysis of its habit shows that, trees are dominant followed by shrubs, herbs and then climbers. Estimation of tree biomass through non – invasive and allometric methods leads to estimation of carbon sequestered. The total carbon storage in Karnatak Campus is **163.2** tons (163149358.3 g) in all standing tree species of Karnatak Campus, Dharwad.

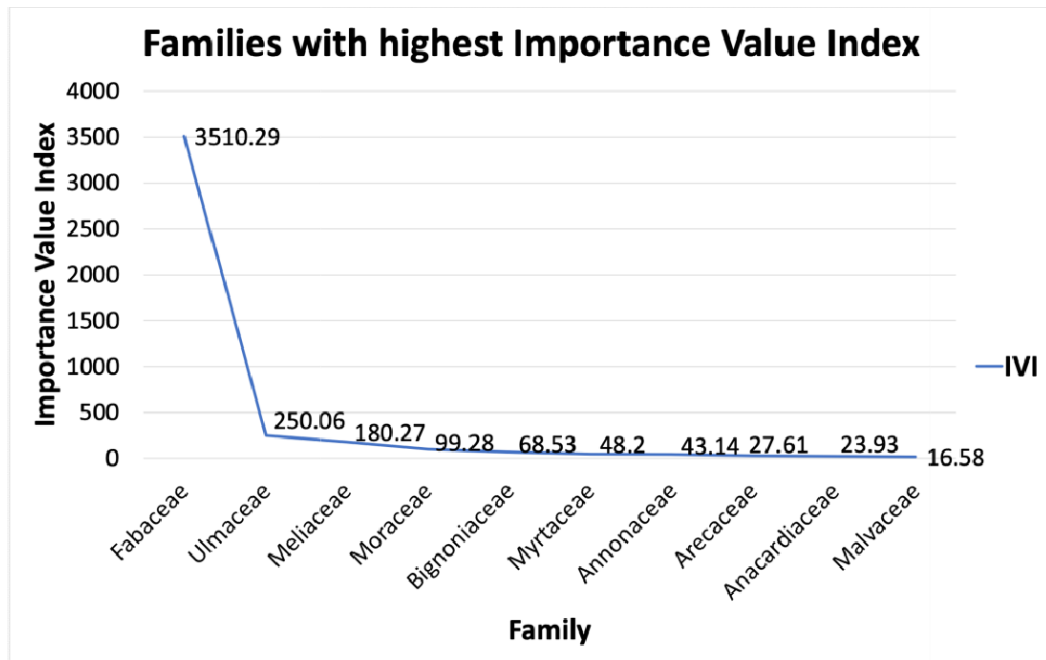


Fig.1: Families with highest Importance Value Index in Karnatak College Campus, Dharwad

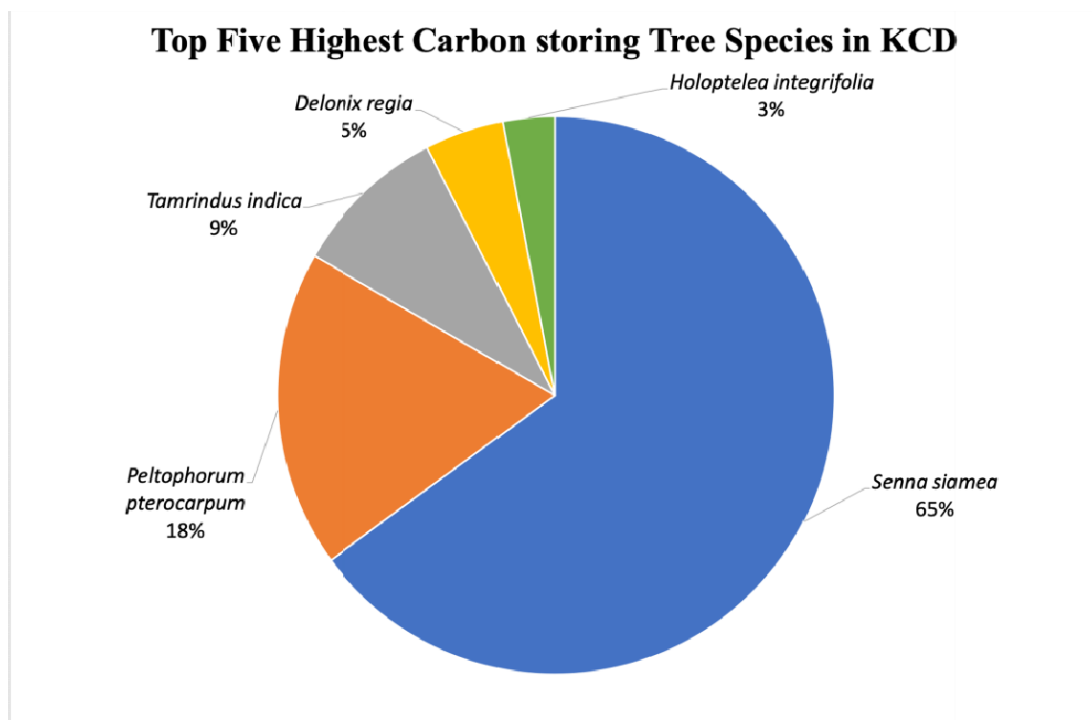


Fig.2: Top five highest carbon sequestering tree species of Karnatak College Campus, Dharwad