

# Relying on native trees to cut carbon in air

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Ahmedabad: A study carried out by an agricultural university indicated that trees such as Nilgiri have high carbon dioxide (CO<sub>2</sub>) sequestration capacity and could be best bet when it comes to reducing atmospheric carbon.

The study, carried out by researchers at Sardarkrushinagar Dantiwada Agricultural University, focussed on native tree species and found that while a six-year-old Nilgiri plant can absorb about 1,600kg of carbon dioxide, a saru tree, also identified as she-oak or Australian pine tree, can absorb about 1,200kg in the same period.

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The study 'Growth, biomass production and CO<sub>2</sub> sequestration of some important multipurpose trees under rainfed conditions' by Kinjal Chaudhary, J R Jat, Tejasvi Joshi and Ankit H Chauhan from the department of soil science & agricultural chemistry at Sardarkrushinagar Dantiwada Agricultural University, was published recently in International Journal of Advanced Biochemistry Research.

The researchers explained that an experiment was conducted at agroforestry research station at the university where six-years old tree plantation consisting of five tree species commonly found in Gujarat were analysed for its properties.

The major takeaway of the study was CO<sub>2</sub> content measured in the trees and CO<sub>2</sub> sequestration.

Nilgiri topped on both counts with 439kg CO<sub>2</sub> content and 1,610kg sequestration per tree, followed by Saru tree with 335kg CO<sub>2</sub> content and 1,229CO<sub>2</sub> sequestration.

'As the tree biomass experience growth, the carbon held by the plant also increases carbon stock. As the forest biomass experiences growth, the carbon held captive in the forest stock increases... (a) tree constitutes a major carbon sink owing to the photosynthesis and storage of CO<sub>2</sub> in live and dead organic matter,' mentioned the study.

With about two-thirds of terrestrial carbon is sequestered — the process of capturing and storing atmospheric carbon dioxide — by standing forests and trees, every tree helps removal of greenhouse gases, said experts.

“Focus should be on local tree species and its qualities especially in areas with high CO<sub>2</sub> concentrations. It is also a message that mature trees should be conserved,” said a city-based ecologist.

Several earlier studies have also focussed on trees such as banyan, mango and peepal in Indian context.

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