

# NEED OF AGROFORESTRY AND IMPACT ON ECOSYSTEM

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**Abstract:** Agroforestry is a modern and scientific farming practice. It is a sustainable land use system under which food crops (annuals) with tree crops (perennials) and/or livestock are maintain simultaneously on the same piece of land to increase the total yield and this management practices are economically and ecologically sound. It is just a compromise between these two resources of forest trees and agricultural crops to maintain the need of forest cover upto 33% as per given national forest policy. Agroforestry has the potential to alter the microclimate under the tree canopy. It plays a major role in enhancement of overall farm productivity, soil fertility through addition of litter and organic matter, climate change mitigation through carbon sequestration, phytoremediation, watershed protection and biodiversity conservation. Upto some extent biodrainage plantation might have improve the soil aeration, sulphide toxicity and nutrient use efficiency. Moreover, it reduces the water logging condition and maintains the soil aeration property. Under the agroforestry system multipurpose and N<sub>2</sub>-fixing trees are played a valuable and significant role for upliftment of productivity and combating the soil health problem. Generally, farmers are used N<sub>2</sub>-fixing trees like some leguminosae family comprises *Acacia spp.*, *Dalbergia sissoo* etc. on their farmland for enhancement productivity with better soil health and generating incomes through employment. Therefore, scope and potential of agroforestry are envitable.

**Keywords:** Agroforestry, biodrainage, biodiversity, carbon-sequestration, farming system.

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