

## Agroforestry: A Sustainable Practice for Integrated Agriculture

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Agriculture has been practiced in riverian plains since time immemorial. In the past century, man encroached the natural forest and grasslands indiscriminately for cultivation of cereal crops. Due to indiscriminate use of artificial fertilizers, chemical pesticides and overexploitation of soil resources, agricultural lands degraded at a large extent. Increase in human population, overgrazing and nutrient deposition results in decrease of ecological stability and functioning of natural food chains. Uncontrolled grazing further intensifies the problem and prevented natural regeneration of vegetation in cultivated plain areas. Deforestation and Climate changes further exaggerate the situation and make the agricultural practices harsher.

Therefore, in the quest of optimizing productivity, the multi-tier system came into existence. The origin of agroforestry practices, i.e. growing trees with food crops and grasses, is believed to have been existing since Vedic era. Farmers have been growing trees on their farms for generations to maintain healthy soil and secure food supplies and for timber and fuel. Agro-forestry is the science of manipulate and developing an integrated, self-sustainable land-management systems that involves the cultivation of multipurpose woody components such as trees, shrubs, bamboos, canes and palms along with agricultural crops including pastures or animal husbandry, simultaneously or sequentially on the same piece of land and time, to satisfy the ecological as well as socio-economic needs of people. But the practice of agroforestry has been declining sharply in India in the past few decades. Intensive cropping

causes degeneration of well-established traditional agroforestry ecosystems. It becomes need of the hour to integrate the traditional agroforestry with advanced modals and techniques to make the agriculture sector more sustainable and productive.

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