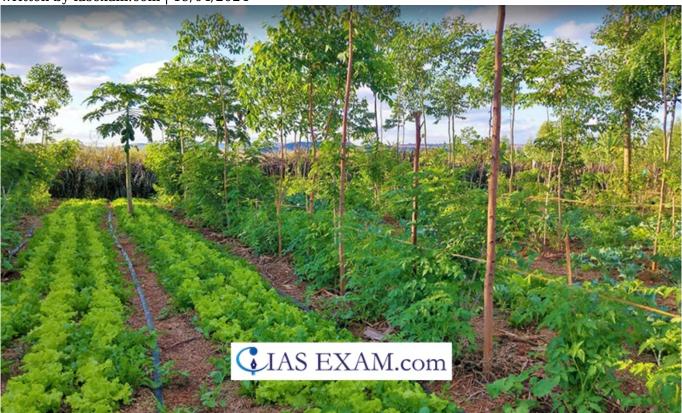
Benefits of Small-Scale farmers from Agroforestry

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Context

Agroforestry, which involves combining trees with crops and livestock, has great potential to benefit small-scale farmers in India by improving their livelihoods and land use practices.

Details about Benefits of Small-Scale farmers from Agroforestry

Small-scale farmers can reap numerous benefits from integrating trees into their farms, a practice known as agroforestry.

Key advantages

- **Diversification of Income:** Trees can provide additional sources of income through the sale of fruits, nuts, timber, and other non-timber forest products.
- Enhanced Food Security: Fruit and nut trees can contribute to the nutritional needs of farming households.
- Soil Health Improvement: Trees help with soil fertilisation by fixing nitrogen into the soil and providing acidified matters via the leaves' litter.
- Climate Resilience: So, trees on the fields can support adaptation to climate change through regulating subclimates, managing water in the best way possible and installing absolute resistance to severe weather hazards.

- **Biodiversity:** The existence of trees for sure maintains the diversity locally by becoming the home for numerous birds, insects, and other animal inhabitants.
- Carbon Sequestration: The trees are the super hero who has all the superpowers like absorbing the carbon dioxide and thereby helping to regulate greenhouse gas emissions which is the root cause of climate change.
- Livestock Welfare: The trees can provide shade and shelter for livestock allowing the livestock to create a comfortable environment, consequently they will thrive. The productivity of the livestock will be high due to the comfort of its environment.
- Water Management: Trees are able to better the handling of water most importantly by enhancing the abstraction of groundwater and space consumption at the same time.
- **Sustainable Farming:** Agroforestry notion that enables land utilisation that concurs with productivity for a long period of time.

Government Policies

The Government of India has recognized the importance of agroforestry and has implemented several policies to support and promote this practice among farmers, especially small-scale farmers.

- National Agroforestry Policy (2014): This is the first time in India the government has made agroforestry as a standalone policy. which is intended to be a platform of integrating trees and shrubs in farms and villages that will sustain and improve farming and ecological system productivity and profitability, as well as such system diversity and sustainable ecosystem.
- National Forest Policy (1988): Despite being an older policy, this initiative tends to foster more tree growing in forests and it gives an insight of the role of agroforestry in attaining this objective. Agroforestry is also shown to have the ability to reduce effects of climate change by using land to store carbon.
- National Bamboo Mission (2002): The agency that constitutes this mission is the Ministry of Agriculture and its focus is increasing the propagation of bamboo as a major agroforestry component for the socioeconomic and ecological benefits it can bring.
- Rashtriya Krishi Vikas Yojana (RKVY): Under this plan, the central government would be urging the states to bump up public funding into the agricultural and allied sectors.
- National <u>Horticulture</u> <u>Mission</u> (NHM): NHM helps the introduction of vegetables farming, which are part of agroforestry practice that is one of the types of agroforestry, into farmlands.
- **Green India Mission (2010):** A part of National Action Plan on Climate Change is this objective of increasing forest cover including agroforestry practices as well as biodiversity and nature of ecosystems, to improve the services, allotment and sequestration of carbon.

Agroforestry

- Agroforestry is a sustainable land management system that combines agricultural crops or livestock with trees in the same area.
- It involves intentional integration of trees into farming systems to create ecological,

economic, and social benefits.

- Unlike traditional agriculture where trees are often cleared, agroforestry promotes their presence to enhance soil fertility, water conservation, biodiversity, and carbon sequestration.
- This practice offers multiple advantages such as increased crop yields, improved resilience to climate change, diversification of income sources, and preservation of natural resources.
- Agroforestry systems vary widely depending on the local climate, soil conditions, and the specific needs of farmers, but they generally involve the strategic planting of trees alongside crops or livestock to maximise productivity and sustainability.

Conclusion

For small-scale farmers, especially in regions like India, the adoption of agroforestry practices is supported by policies such as the National Agroforestry Policy, which aims to enhance tree cover and provide financial support for transitioning to agroforestry. Despite challenges like water availability and financial barriers, solutions are within reach, and initiatives like the 'Trees Outside of Forests India' (TOFI) are working to overcome these obstacles.

Source: The Hindu

UPSC Mains Practice Question

Q. Discuss the significance of agroforestry in enhancing the livelihoods of small-scale farmers. How does the integration of trees into farming systems contribute to increased resilience, improved productivity, and sustainable agricultural practices?