

# Sustainable Management of Forest Ecosystem Services

## Situation

Forest and agroforest ecosystems play a larger role in our survival, apart from being a timber source. Water is the most critical ecosystem service for sustaining life, amongst a wide array of other services provided by forests. Forests are intrinsically linked to water as forested watersheds and provide 75 percent of our accessible freshwater resources (*Millennium Ecosystem Assessment, 2005*).

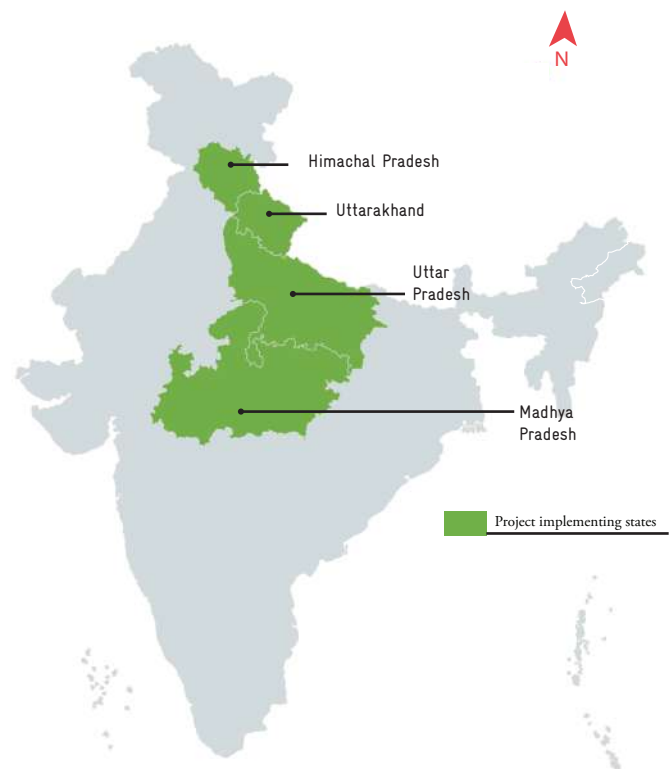
Restoring degraded forest and agroforest lands and maintaining them to regulate stream flow will improve the accessibility of water resources. Landscape approaches also emphasise the need to manage forests for ecosystem services to maximize their flow and ensure their equitable distribution. (*Advancing the Forest and Water Nexus, FAO, 2019*)

However, despite its importance, forest and agroforest management is not yet sufficiently oriented to integrate the Forest Ecosystem Services (FES) approach. It is therefore important to consider the FES approach while making forest and agroforest management decisions so that these are managed in a sustainable manner and steered towards enhancing the flow of FES, especially water availability.

The project supports **the increased orientation of forest and agroforest management** towards **FES**, with a focus on water availability.

## Objective

The main objective of the project is to strengthen the forest and agroforest management to integrate the FES approach with emphasis on water availability.





## Approach

The project is being implemented in close cooperation with the Indian Ministry of Environment, Forest and Climate Change (MoEF&CC), the Himachal Pradesh, Uttarakhand, Uttar Pradesh and Madhya Pradesh Forest Departments. The following four core areas define the implementation approach of the project:

- Institutionalisation and up-scaling of the FES approach in forest management:** This involves development of working tools such as guidelines, methodologies, templates, *etc.* to facilitate decision making for sustainable FES management. Best practices focusing on improving water availability are being documented and disseminated. Furthermore, the FES approach is being integrated in two forest working plans encompassing an area of approximately 251630 ha.
- Providing implementation support, to demonstrate the feasibility of cross-sectoral approaches and innovative approaches for FES management:** This entails developing and implementing FES management plans at the six project demonstration sites. The focus is on creating incentive-based mechanisms, establishing inter sectoral linkages and implementing physical interventions for improving water availability.
- Knowledge management, for improved access to available knowledge on sustainable FES management:** by developing digital formats for knowledge exchange on sustainable FES management such as E learning modules that are being integrated into the government's online learning platform called iGOT Karmayogi which is part of the Digital India initiative. Existing curricula for state and national forest training institutes is being revised and capacity development efforts for stakeholders including trainings and exposure visits are ongoing.

- Improving the operational conditions for ecologically and economically sustainable value chain creation from agroforestry systems in U.P. and M.P.:** by documenting and disseminating best agroforestry practices and strengthening their value chains. Working aids such as nursery manuals and guidelines for producing quality planting material are being created to assist farmers and Farmers Producer Organisations (FPOs). Along with this, FPOs are being strengthened, capacities of diverse actors are being developed, and knowledge sharing through forestry and agricultural networks is being encouraged.

## Contribution to 2030 Agenda

The FES project directly contributes to the already formulated national indicators for Sustainable Development Goal (SDG) 2: Zero Hunger:

- Value added by agricultural workers
- Share of organic farming

and SDG 15: Life on Land

- Share of forest areas in the total land area,
- Percentage of trees outside the forest in the total forest cover,
- Decadal change in the extent of water bodies within forest areas from 2005-2015.

It is of utmost importance to **integrate FES management as an essential solution** for the sustainable flow of water and related ecosystem services.

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