



# Forests and Water

Forests. Water. Life.



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Water resources are increasingly under pressure from land-use change, growing populations and climate change. Some 4 billion people – over 50 percent of the world's population – are affected by water scarcity (Mekonnen and Hoekstra, 2016) and this number is expected to reach 6.3 billion by 2050.

Water security depends on forests. Forests help regulate the water cycle, sustain water supply and maintain water quality. Forested watersheds supply approximately 75 percent of accessible freshwater (Millennium Ecosystem Assessment, 2005) and provide water to 90 percent of the world's 100 largest cities (The Nature Conservancy, 2016). Resilient forest landscapes are an integral part of the water supply solution. Yet 75 percent of forests are not managed for water conservation, and watersheds have already lost 40 percent of their tree cover on a global scale (World Resource Institute, 2017).

The forest and water nexus has been gaining attention at the international level and is particularly relevant in the context of adaptation to climate change. Forests contribute to landscape resilience and can reduce the risks of natural disasters that can disrupt the source and supply of freshwater. Integrated management and policies, underpinned by scientific understanding, are thus needed to address the forest and water nexus in multifunctional landscapes. FAO has been a leader in bringing these issues to the forefront of international discourse and action.

## Forest and Water Programme

The Forest and Water Programme acknowledges the importance of forests in the broader landscape and

aims to mainstream considerations for water-related ecosystem services in sustainable forest management. The programme takes a holistic approach, integrating forest and water science, policy and practice. It advocates for recognition of forest–water interactions and the role of trees and forests in maintaining resilient landscapes and providing high-quality water resources, in different climatic zones and forest ecosystems and at different landscape scales.

The forest and water nexus is a cross-cutting issue, crucial not only in achieving the Sustainable Development Goals (SDGs) related to water (SDG 6), life below water (SDG 14) and life on land (SDG 15), but also in addressing those related to poverty (SDG 1), hunger (SDG 2), energy (SDG 7), economic growth (SDG 8), sustainable cities (SDG 11) and climate (SDG 13). The Forest and Water Programme contributes to FAO's Strategic Objectives 2, "Make agriculture, forestry and fisheries more productive and sustainable", and 5, "Increase the resilience of livelihoods to threats and crises".

## Vision

Sustainable management of resilient forest landscapes for water-related ecosystem services

## Goals

- Integration of forest and water management to provide a sustained supply of forest goods and services, in particular water-related ecosystem services, while ensuring the resilience of forests to global changes.

- Mainstreaming water considerations in forest management.
- Ensuring inclusion of forests as nature-based solution for water management.

## Activities

### Technical support to projects and countries

- Promotion of an integrated approach to forest and water management and ecosystem services planning.
- Development and sharing of relevant methodologies and tools for managing resilient forest landscapes for water-related ecosystem services.
- Development of an online Forest–Water Monitoring Decision Support Tool.

### Capacity Development

- Workshops and training to improve global understanding and to increase the uptake of forest–water nexus concerns in practice.
- A facilitation guide developed to support incorporation of the forest–water nexus in project activities.
- Communities of practice for stakeholder engagement.

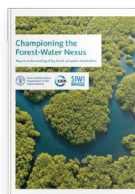
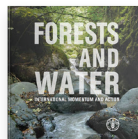
## Knowledge Management

- Collation and dissemination of data on the forest–water nexus, to maintain a high standard of knowledge and to foster continuous learning.
- Sharing of lessons learned and best practices from the field.
- Studies on the importance of forested watersheds for the water supply of some of the world's fastest-growing cities.

## Advocacy

- Promotion of the role of forests in the water cycle through coordination of regular events in collaboration with a network of partners.
- Engagement in political dialogue to increase the recognition of the forest–water nexus and to advocate for policies and institutions that create an enabling environment for integrated forest and water management.

## Publications



For more information:

[www.fao.org/in-action/forest-and-water-programme](http://www.fao.org/in-action/forest-and-water-programme)



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