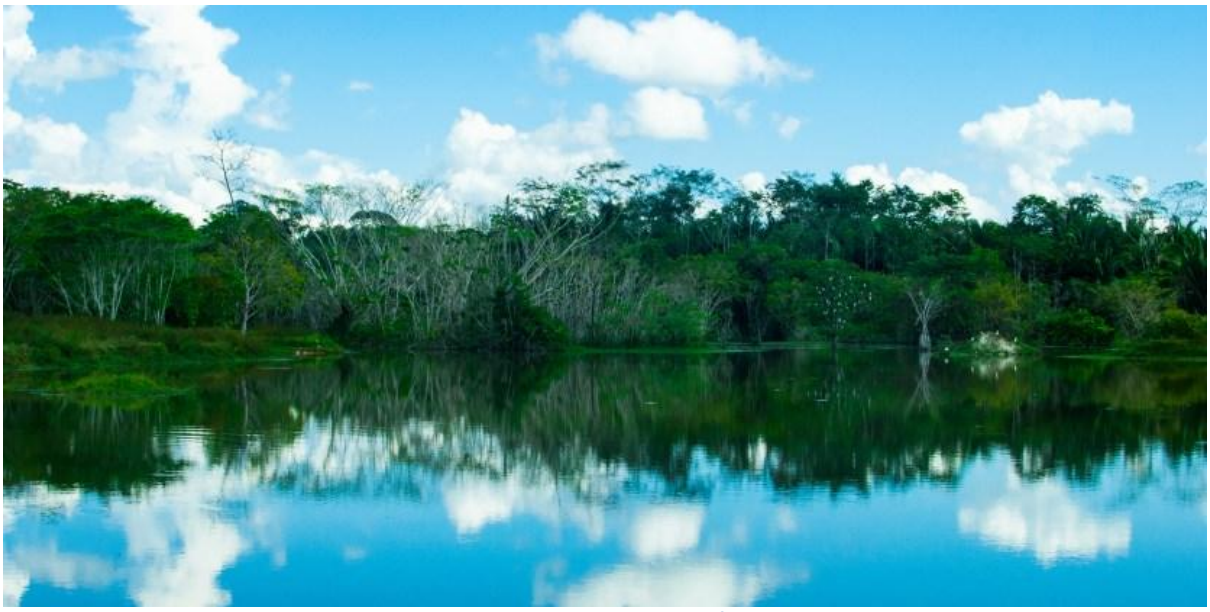
FORESTS NEWS

## Contributions of forest and water sectors overlooked in policy processes

08 October 2020



Water, trees and climate connected at a water reservoir in Brazil. CIFOR/Icaro Cooke Vieira

Despite their extensive potential — from confronting climate change to achieving the Sustainable Development Goals (SDGs) — the forest and water sectors, and particularly their interconnections, are too often overlooked within major international policy processes, experts say.

High-level agenda choices fall short in understanding and acknowledging the forest-water nexus; that is, the interactions between forests and water that create a range of dynamic ecosystem services. These services heavily contribute towards successful landscape restoration and climate change mitigation/adaptation actions.

Such myopia is a grave error: proper management of the forest-water nexus is integral to achieving U.N. targets, including the climate goals of the Paris Agreement, the 2030 Agenda for Sustainable, the post-Aichi Biodiversity Targets — which are now being negotiated — and for success of the Decade on Ecosystem Restoration that begins in 2021.

Within the sector, it is generally recognized that only by recognizing the interlinkages between forests and water, and how integrated management of these resources influences productive, multi-functional landscapes can appropriate actions on agriculture, environment, and storing carbon be effectively designed for long-term benefits.

International negotiations should already be fully using existing initiatives connected with the forest-water nexus.

“A transformation is needed, from conventional forest management approaches focused on biomass production, to the recognition of forests as natural infrastructure where ecosystem services delivery, especially water, is a primary management objective,” said Elaine Springgay, a forestry officer with the U.N. Food and Agriculture Organization (FAO).

She is a member of the expert network Forest Water Champions (FWC), initiated and coordinated by FAO, the International Union for Conservation of Nature (IUCN), the Stockholm International Water Institute (SIWI) and the Center for International Forestry Research (CIFOR). The network advocates better understanding of the forest-water nexus, with a focus on interactions and consequences of forest-water interlinkages.

For example, altering the landscape changes the way water flows, both above and below ground, while restoring ecosystems can improve water availability, storage and quality. However, this will only be achieved if the hydrological functions and water services that ecosystems provide are considered. Failure to do so puts the goals of the U.N. restoration decade at risk; no restoration or protection activity can succeed without protecting and improving hydrological functions and water management and services.

The potential of forest-water linkages were captured at SIWI's annual World Water Week. Building on that momentum, a series of webinars hosted by FWC on the forest-water nexus, starting Oct. 15 with Forest-Water Nexus Supporting Biodiversity, will examine and highlight the connected natural capital inherent in forests and water; and the implications for biodiversity.

Forests and trees regulate water systems, reduce soil erosion and water sedimentation. The water ecosystem services of forests are important for maintaining healthy ecosystems, landscapes and communities. Forests, as "natural infrastructure," and their management can provide nature-based solutions for a range of water-related societal challenges.

Forested watersheds provide an estimated 75 percent of the world's accessible freshwater resources, and more than half the Earth's population is dependent on these water resources for domestic, agricultural, industrial and environmental purposes.

The planet's growing human population is placing increasing pressure on the water ecosystem services from forests, contributing to tree-cover loss, land conversion and degradation, increasing demands for water – all exacerbated by climate change. This has highlighted the forest–water nexus as a human issue that requires urgent socio-political attention.

"A large proportion of the population worldwide has difficulties in accessing and obtaining clean water to meet their basics needs – a problem that is expected to worsen as water becomes even more scarce," said Lotta Samuelson, Program Manager and Team Lead Landscapes at SIWI.

"Trees and forest are fundamental for the hydrological cycle and hence, for productive landscapes that provide food and raw materials for households and industries alike. Restoring forested landscapes, and managing them for water, is crucial for achieving Agenda 2030 and the Paris Agreement."

The relationships between forests and water are complex and context-specific. Existing research and knowledge should be applied to help prioritize how forests should be managed within our landscapes in symbiotic relationships with water-related ecosystem services, such as soil erosion control, flood reduction and groundwater. In addition, more research and monitoring of forest-water interactions in multi-functional landscapes is essential and should be a requirement of restoration and landscape initiatives.

These are examples of the multiple challenges that exist in relation to the forest-water interconnections, said James Reed, a scientist with the Center for International Forestry Research (CIFOR).

“Just recognizing the forest-water nexus is not enough,” said Reed. “We must improve our ability to design, implement, and learn from landscape approaches that both rely on the relationships between forests and water, and impact them.”

A social-ecological systems approach would address resilience, climate, mosaic landscapes plus people, supported by integrated monitoring frameworks that include water in national forest monitoring systems and incorporate natural forests as sources of water supply.

“We should challenge many of the assumptions around forests and water through better collaborative science,” said James Dalton, Coordinator of Global Initiatives in the Global Water Programme at IUCN. “Central to this goal must be the recognition of water as a resource that trees both require and provide.”

Source: https://forestsnews.cifor.org/67922/contributions-of-forest-and-water-sectors-overlooked-in-policy-processes?fnl=en