

# Leveraging NBS for Water Security and Climate Action

Submitted by Forest Trends

## Context

Water resource managers and service providers, such as drinking water utilities, have long been at the forefront of adopting nature-based solutions. From New York, to Beijing, to Rio, cities are increasingly investing in their “natural infrastructure” – the forests, grasslands, and wetlands in source water areas that sustain the quality and reliability of water supplies. Forest Trends’ biennial global surveys over the past 9 years have shown steady growth in these investments, with over \$25 billion invested in 2016. Water funds that promote nature-based solutions are experiencing rapid growth, especially in Latin America, with new funds emerging each year in Africa, Asia, and North America.

The water sector in Peru has led the way through a national-level regulation-driven allocation of funds to natural infrastructure from drinking water tariffs. Each water utility assigns a portion of tariffs collected from water users to investments in nature-based solutions – a model that could be widely replicated.

## Overview

There is a clear opportunity to leverage water sector investments to scale nature-based solutions for climate action. Explicitly designing nature-based solutions that deliver multiple climate, water, and sustainable development outcomes can drive increased investments from other sectors as well.

This contribution advances approaches to better link climate and water investments in the context of the significant investments that the water sector in Latin America is making in nature-based solutions. Activities will demonstrate the potential of nature-based solutions for water to contribute to the region’s climate resilience and national adaptation strategies.

## Co-Benefits

The latest IPCC climate report makes it clear that carbon removal from the atmosphere must be part of any path to stay within a target of 2°C. The same nature-based solutions that address water security also remove carbon from the atmosphere through storage in vegetation and soils.

Because “climate is water,” the impacts of climate change will be felt primarily through changes in the frequency of rainfall, droughts, and floods, and the increasing unpredictability of these events. Nature-based solutions can improve local adaptive capacity by increasing resilience to these climate shocks.

Nature-based solutions that protect biodiversity, improve soil health, and sustainably manage forests and agricultural systems will help achieve many of the Sustainable Development Goals concerning food security, improved health outcomes, and economic opportunities.

Critically, nature-based solutions designed to achieve multiple benefits can avoid the potential negative impacts, for example on food production and biodiversity, of some of the land-based carbon removal technologies being proposed.

## Countries and Organisations

The contribution builds on the example of Peru, which in recent years has initiated a rapid paradigm shift in its water sector to embrace nature-based solutions as a central pillar of its water resource management and climate change response.

The Natural Infrastructure for Water Security (NIWS) Project in Peru builds seeks to mainstream nature-based approaches to reduce water risks and improve climate resilience. With partners in the Ministries of Environment, Agriculture, Housing, and Women, as well as Peru’s national water regulator SUNASS, its

National Water Authority, and local governments, communities, and businesses, Forest Trends leads the NIWS implementation team of CONDESAN, the Peruvian Society for Environmental Law, EcoDecisión, and experts from Imperial College London.

Forest Trends has been awarded additional funds recently by the Batten Foundation to advance approaches that specifically leverage and replicate the climate benefits of nature-based water security investments.

## Delivery of the Contribution, Stakeholder Engagement, and Transformational Impacts

Two watersheds in the region present significant opportunities to advance strategies that are replicable and scalable throughout the tropical Andes.

In Peru's San Martin region, Moyobamba's water tariff for nature-based solutions implemented by local communities can generate multiple benefits for climate, food security, and rural incomes. Stakeholders here are interested in exploring how climate benefits generated by these investments can be leveraged to tap climate funding and expand scale and impact beyond what can be accomplished with utility tariffs alone.

Similarly, FONAG, the water fund in Quito, seeks to evaluate the climate benefits of their investments and explore the potential for accessing climate funding to supplement funds available from utility customers.

In terms of transformative impacts, the contribution can demonstrate the extent to which Nationally Determined Contributions can be met through investments made primarily for water security. Second, it generates practical tools that governments, donors, and investors can use to evaluate the climate benefits of nature-based investments. Third, it illuminates pathways by which water and climate finance become mutually supporting: i.e., bilateral climate commitments could provide upfront funding, while water tariffs provide cash flows over time. Finally, as noted, the contribution supports multiple SDG targets.

## Experience, Linkages, and Funding Mechanisms

Focusing initially on the water sector in Latin America provides a clear path to scale. Drinking water utilities across the region are positioned to replicate the Peru model, and water funds are growing rapidly. Globally, most drinking water utilities have similar user-fee or tariff models, which could readily be adapted to allocate a portion to nature-based investments as in Peru.

Moreover, aligning multiple objectives through nature-based solutions can more efficiently leverage existing funding for water and climate, while demonstrating multiple benefits to a much wider range of stakeholders can expand the pool of interested investors.

## Metrics

The contribution will generate critical information including:

- Tools and evidence to understand climate benefits in a given watershed from water sector investments;
- The extent to which a country's NDC commitments can be met through investments made primarily for water security;
- Benefits to other sectors (such as agriculture, insurance, or public health), and sector-specific business cases for other investors to join the water sector in nature-based investments.

## Communication

The NIWS project in Peru already implements a major national communication strategy, which could be scaled and replicated. Another vehicle for dissemination to a key stakeholder group is the natural infrastructure training course which Forest Trends and EcoDecisión offer in collaboration with the Association

of Latin American Water Utility Regulators (ADERASA). Also planned are sessions at major water meetings (e.g., World Water Week), and a webinar series to communicate sector-specific business cases.