

Investing in nature for water security: the power of collaboration

*Naabia Ofosu-Amaah Senior Corporate Advisor of Water - [THE NATURE CONSERVANCY](#)
Sophie Trémolet Europe Freshwater Director - [THE NATURE CONSERVANCY](#)*

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Around the world, the impacts of climate change are increasingly being felt and have become impossible to ignore. Stories of increased drought, more intense storms, and changing rainfall patterns are commonplace. These changes are putting global water security at risk: according to the UN, about 4 billion people, representing nearly two-thirds of the global population, already experience severe water scarcity during at least one month of the year, and businesses consistently rank water risk as a top concern, based on a survey published by the World Economic Forum every year.

Ensuring humanity's water security is an issue of top priority for public and private sector leaders around the world. How to get there, however, is currently up for debate. The Nature Conservancy (TNC) has articulated a clear vision, focusing on investing in nature to tackle this challenge. **While traditional grey infrastructure has been and will remain a centerpiece of global water management, significantly more investment is needed in green infrastructure, as it is flexible, cost-effective and resilient and can generate a multitude of benefits for nature as well as create local green jobs.** Investing in nature to strengthen the resilience of global watersheds can both deliver measurable benefits to those most vulnerable to the impacts of climate change and be good for business. This is why we must prioritize these investments on our path to 2050.

Water funds: harnessing the power of nature for water security

TNC has worked for over two decades to demonstrate how investments in nature can deliver water benefits to those who need them most. **The creation of Water Funds - purpose-built collective action mechanisms that promote upstream conservation practices to drive measurable downstream water quality and quantity benefits - has been a primary focus to date.** These structures enable stakeholders to overcome common challenges such as governance fragmentation and lack of coordination and help them invest at scale in nature-based solutions like reforestation, habitat restoration and sustainable agricultural practices.

Watershed investment is not an individual endeavor. **Creating watershed-scale change requires a team of stakeholders - including local communities, public entities and the private sector - working together in lockstep to define common objectives and approaches.** Water Funds are designed to facilitate this collaboration, bringing stakeholders together to implement the actions that the watershed needs most. Since the first Water Fund was established in Quito, Ecuador in the early 2000s to restore and protect the páramo (large areas of wetlands in the Andes that act as a sponge and regulate water flows), TNC has worked with partners around the world to support the establishment of 44 Water Funds. From South America to Europe, the United States, Africa and the Asia Pacific region, TNC and partners have designed custom-built Water Funds to address a number of water security challenges.

The role of the private sector

Though Water Funds can benefit both communities and nature, financing and launching these projects with the right stakeholders can be a lengthy, complex process. To be successful, Water Funds require an 'anchor organization' or local lead, which is usually a city or a public utility. But for these stakeholders, who have for so long relied on traditional, grey infrastructure as the only solution, investing in nature often represents a paradigm shift, and securing their necessary buy-in can be a challenging feat. **The private sector has a unique role to play at this critical early stage.** In several cases, corporations that were actively working to address water security challenges in their production centers provided critical early funding and guidance that helped get new Water Funds off the ground. They understood that in order to fulfill their responsibilities as water stewards, working at the level of a single production facility (like a bottling plant) could not deliver meaningful change in complex systems that are shared and influenced by many actors. Instead, they recognized that investing in larger coalition building can deliver more impactful results over a longer period. This is critical as most investments in nature need to be sustained over time to generate impact.

In early 2018, for example, The City of Cape Town in South Africa faced a prolonged drought that left the city of 4 million people days away from Day Zero - the point at which taps were predicted to run dry. While Cape Town narrowly escaped the worst-case scenario due to the arrival of the winter rains and water pumped from a neighboring region, the crisis created a sense of emergency and triggered multi-pronged action. TNC and its local partners focused on making the case for investing in nature and together showed that removing water-thirsty invasive plants in the upper watershed (in a targeted and sustained manner) **could save 55 billion liters of water per year**, the equivalent of 2 months' worth of water supply to the city within the first six years of the program. The analysis also showed that this could be done at 1/10th of the cost of grey infrastructure solutions considered by the City. But getting this idea off the ground and mobilizing funding for implementation was not easy. **Early commitments from the private sector made the difference as they created critical momentum needed to prove out the plan and inspire public investment for long-**

term sustainability. An initial \$100,000 investment from one company in 2017 helped leverage nearly \$3 million in private support and subsequently inspired a \$4 million investment to date for the city. The project is now underway to generate an astonishing 100 billion liters in annual water gains within 30 years.

A similar story played out in Sao Paulo, Brazil, where TNC is working with farmers and other landowners to restore forests to address local water quality issues and tackle climate change (there are approximately 1.1 million tons of carbon stored in standing forests within the Sao Paulo Water Fund's geographic scope and 45,000 additional tons of carbon being captured across local restoration and conservation sites each year). **Again, it was early investments from 6 corporations that helped generate the momentum needed to start this program.** More than 18 companies have since committed nearly \$6 million, which has helped leverage over \$16 million to date from 4 new public funding sources. Together, this support has helped TNC and partners restore, conserve and implement land-use best practices on 25,000 acres.

Getting to scale, together

The hard truth is that developing one Water Fund at a time will not be sufficient to address water security challenges that keep growing by the day. **To scale, we need to equip entities that work across the globe, such as development finance institutions and corporations, and address the many barriers to entry that exist in developing watershed investment programs.** And we must do it fast. To that end, TNC and partners have developed a full range of tools, associated training programs and technical assistance facilities to help partners advance from understanding the benefits of investing in NBS for water security to delivering investments on the ground.

Tools like [WaterProof](#), for instance, help partners understand whether nature-based solutions (NBS) are viable options in their watershed, by providing an estimated return on investment: **use of this tool can save precious time and money in assessing options at an early stage of project development.** Working with the CEO Water Mandate (established by the United Nations Global Compact), it became apparent that generating additional private investment in nature-based solutions (NBS) is dependent on businesses gaining a more systematic understanding of the full range of benefits that NBS generate - including water quantity, water quality, carbon/climate, socio-economic, and biodiversity and environment - and of their economic and financial benefits. This prompted the creation of the [NBS Benefits Explorer](#) to help businesses gain a clearer understanding of the full range of these benefits in a way that is relevant to their activity.

Jointly with the World Water Council, TNC supported the preparation of an [Investor Guide](#) that identifies six investment areas or "business lines" for nature-based solutions that are especially relevant to addressing water security risks and appear to offer the most promising models for international replicability, such as constructed wetlands and agricultural best practices. **These and other tools, along with decades of field experience, are centralized and easily accessible in the TNC's Water Funds Toolbox.** TNC also helps partners through tailored training, including for corporate partners whose value chains reach every corner of the world and development finance institutions interested in increasing their investment in nature-based solutions as independent and combined green-grey infrastructure projects. More than 1,000 practitioners have been trained to date.

To help partners move from theory to practice, the Nature for Water Facility was recently set up as a joint venture between TNC and Pegasys, a consultancy. **This facility provides best-in-class technical assistance to project developers looking to include green infrastructure and NBS in developing watershed investment programs,** either on a pro bono basis for selected projects following periodic calls for proposals or on a fee-for-service basis.

Next steps: a call to action

For people and nature, the stakes for getting this work right could not be higher. But the good news is that a clear vision and associated tools have been developed to get there. **The private sector has a unique and important role to play in helping deliver solutions.** Moving into the future, we all must work to understand our unique strengths and commit to working together, continue to invest in NBS and support the development of new tools, resources and technology that will propel us forward, together. Climate change will not wait. Let us get to work.

Restoring natural flows and managing water demand in Pout, Senegal

Since 2019, TNC has been working in partnership with Agence française de développement (AFD) to develop joint water security programmes with nature-based solutions components in Senegal and Kenya and deliver training aimed at governments and AFD staff preparing investment projects. **In Senegal, this joint project is focused on tackling the rapid deterioration of the Pout aquifer, which is a critical resource for Dakar’s water supply.** On the back of this joint effort, AFD provided [a 6 million euro grant to the Government of Senegal](#) to develop governance arrangements for improved management and water-sharing resources and to invest in nature-based solutions, including improved agricultural practices and restoration of natural water retention features. This seed investment will lead to establishing “an aquifer contract”, which could attract private investment from corporations that depend on these resources for their business, following the Water Fund model (including bottling plants, agri-business, cement factories and the nearby airport).