



INTERNATIONAL WATERS RESULTS NOTES

Water Funds:

A Conservation/Climate Resilient Model for Stressed Watersheds in Latin America and the Caribbean

GEFID: ATN/FM-16981-RG; RG-T3177, Project Status: Active



Briefly describe what you consider to be the top three quantifiable results of the project to date.

1. Creation of three new Water Funds: Santiago (Chile), Bogota (Colombia) and Mendoza (Argentina) and strengthening of two Water Funds through the elaboration of strategic plans, communications plans, financial plans and stakeholders' engagement plans for Curitiba (Brasil) and Guatemala (Guatemala).
2. Implementation of 4898 hectares of Nature-based solutions for water security in 5 major basins (Maipo-Aconcagua -Santiago Water Fund, Mendoza basin- Mendoza Water Fund, Iguazu 3 basin -Curitiba Water Fund, Motagua basin- Guatemala Water Fund and Magdalena 4 basin- Bogota Water Fund)
3. 4th Water Funds Summit sponsored by the Latin American Water Funds Partnership (LAWFP) and Agua Capital. The Summit took place from July 17- 19, 2019 in Mexico City bringing together a total of 370 people from 26 countries (including representatives from the 5 Water Funds supported by GEF – Curitiba, Bogotá, Guatemala, Mendoza and Santiago). Topics such as sustainable financing, water security in cities and the Water Funds role within water security, water investment and the role of the private sector were included in this summit. In addition, another Water Funds event was hosted by the

LAWFP in Bogota from January 31 to February 2nd, 2023 for Water Funds Directors. The event brought together 44 attendees in total and 24 Water Fund Directors. During this event, scientific tools created by the LAWFP, policy tools, and financial sustainability approaches were discussed. Water Funds also shared their experiences with one another and created a joint art installation that will be displayed at the 2023 UN Water Conference in NY.

[[Water Funds: A Conservation/Climate Resilient Model for Stressed Watersheds in Latin America and the Caribbean - The Nature Conservancy]]

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Latin America Water Funds



PROJECT OBJECTIVE

The Project's specific objectives are: (i) to improve and consolidate existing funds; (ii) to expand the Water Funds model to additional urban watersheds affected by water stress; (iii) to promote policy change and an enabling regulatory environment (national and/or local) to unlock public and private funding for land/water conservation activities; and (iv) to systematize the model's methodology through knowledge, capacity building and dissemination tools and platforms. With these resources, five WFs (Curitiba, Guatemala, Santiago, Mendoza, Bogota) will be created/strengthened to protect upper watershed biodiversity and improve the water security of 14 million people in five major Central and Latin American cities by connecting water users in urban areas with upper watershed land stewards.

RESULTS: PROCESS

The project's outcomes and results can be traced within three components:

1. Water Funds creation and strengthening
2. Nature-based solutions implementation: Implemented hectares and number of people benefited by the project
3. Relevant technical documents, results and outputs delivered by the project.

Under these three components, it is relevant to highlight the following results:

Component 1:

- a) Santiago Water Fund creation: The Santiago-Maipo Water Fund was launched on October 15th in Santiago, Chile during a press-conference led by the Governor of Santiago, TNC and IDB, both partners of the Latin American Water Funds Partnership. This Water Fund has the commitment of the Association of Rural Municipalities (AMUR), Aguas Andinas, Nestlé, the NGO Adapt Chile, Anglo American, National Federation of Health Services Cooperatives (FESAN) and the Confederation of Canalistas de Chile. There are also some collaborative projects that add to this effort with Conaf, Fundación Cultiva and Coca-Cola de Chile.
- b) Curitiba Water Fund Creation: TNC partnered with Movimento Viva Água, a newly created Fund that complies with all characteristics of a Water Fund. Within this partnership, TNC has worked closely with the Viva Água movement (MVA), led by the Grupo Boticário Foundation (a reference institution at a national scale, with more than 30 years of focused work on nature conservation), a member of the Boticário Group (one of the largest cosmetics companies in Brazil). The movement seeks to attract different actors around a common objective - water security, to be achieved through orderly territorial development and the application of nature-based solutions (NbS), contributing to increase the Region's resilience to events arising from climate change in a relevant area for the water supply to the Metropolitan Region of Curitiba. These actions have been developed in an integrated manner with the local actors, considering the previous arrangements and the local capacities already installed. In addition to actions at the state and local government levels, there is a continuous effort to integrate with other actors operating in the targeted region. TNC has proposed MVA for a joint effort where the Water Fund's Strategic Plan and the nature-based solutions implementation began in 2021. This example in Curitiba will become an example for other places in Brazil, where Water Funds are created as independent entities, becoming an option where there are no Water Basin Committees, or where they are not yet consolidated.
- c) Bogota Water Fund creation/strengthening: As a result of the negotiation process aimed at defining the internal governance structure of the Water Fund, facilitated by TNC, and financed by FEMSA Foundation, the internal governance structure of the initiative was established with the support of Alianza Biocuenca. In December 2021, the founding partners (Fundacion Bavaria, Coca Cola FEMSA and Mexichem Pavco) signed the final version of the legal creation document, which entails that the Water Fund is incorporated as a legal entity in the national registry.
- d) Mendoza Water Fund creation: Mendoza's WF was launched on May 5th, 2022. Local authorities, including the Governor of the Province of Mendoza, Rodolfo Suarez participated in this event. During this event, the legal creation document was signed by the Promotor Group. The Promotor Group includes key stakeholders such as Departamento General de Irrigación, Secretaria de Medio Ambiente, Aguas Mendocinas, Cervecería y Maltería Quilmes and Danone Argentina.
- e) Guatemala Water Fund Strengthening: The strategic plan, engagement plan and financial plan for Guatemala Water Fund (FUNCAGUA) were completed and presented to the Water Fund Board. These are key documents for aligning all the board members under the same vision: water security challenges and intervention priorities. The strategic plan also identifies funding needs for implementing the prioritized interventions. The Strategic Plan was developed with a first in-person meeting in 2020, but the rest was done virtually due to covid-19. In October 2020, in a virtual workshop the strategic plan was presented to the Water Fund board, and it was also delivered digitally to the representatives of the Board.

Component 2: The project has implemented nature-based solutions in 4,898 hectares directly benefitting 17,454 families and improving watersheds integrity for 14,726,000 people. This component will be further analyzed in the *Stress Reduction* section below.

Component 3:

- a) Experiences exchange: On July 18th and 19th, 2019 the Latin American Water Funds Summit took place in Mexico City. This event was organized by the LAWFP and Agua Capital as the hosting Water Fund. In addition, we had the sponsorship of Grupo Modelo, HEINEKEN México, Nestlé, LACC, Fundación Cinépolis and Hombre Naturaleza and ECOFILM Festival. The Summit gathered 370 participants from 26 countries. Representing 38% members from the civil society; 20% from the private sector, 20% from the public sector, 12% from other sectors and 10% belonging to the media. A total of 1,103 people followed the Summit online. In addition, a Water Funds event took place in February 2023 where the LAWFP hosted a training event in Bogota, for Water Funds Directors. The gathering brought together 44 attendees in total and 24 Water Fund Directors. During this event, scientific tools created by the LAWFP, policy tools, and financial sustainability strategies were discussed. Water Funds also shared their experiences and lessons learned with one another and created a joint art installation that will be displayed at the 2023 World Water Week.
- b) Technical studies design:
 - a. The Blue Energy Mechanism (BEM) hydro sedimentological model was developed, calibrated, and validated, with uncertainty bands (5% and 95%) that allows us to offer more confidence about the response of the model, to the final users. As part of the process of developing the model, we have characterized the hydro climatology, water demands, geomorphology, sediment budgets and vegetation types to have a comprehensive understanding of the pilot watersheds. It is a daily step, spatially distributed, hydro sedimentological model with 100 meters spatial resolution. Compared to the available models of the pilot watersheds, this is, with no doubt, one of the most (if not the most) sophisticated effort to describe the hydrological and sedimentological responses of the pilot watersheds (Chivor and El Guavio), which are of high interest from the hydropower companies whose business depend on these watersheds.
 - b. Santiago Water Fund Business Case: business case study to identify a set of conservation interventions (activities) to address water security challenges in the Santiago-Maipo Water Fund priority area of the Maipo river basin, and their costs. The analysis compares changes in ecosystem functions related to water supply (e.g., run-off, water turbidity) and resulting priority ecosystem services flows between the Business-as-usual (BAU) and Conservation scenarios

INDICATOR#1: 3 WF (launched) and 2 WF (supported) that will increase the protection of terrestrial and freshwater ecosystems, directly impacting 4,898 has of lands under conservation and/or sustainable conservation agreements.

Indicator # 2: 4,898 hectares implemented impacting 14 million people.

Indicator # 3: 2 experience exchange events; Water Funds Summit in Mexico 2019 and Water Funds training event in Bogota 2023

Indicator # 4: 1 Nature-based Solutions for the Hydropower Sector Monetizing Sediment Control & Water Regulation Ecosystem Services demonstrative project completed in two pilot sites (Chivor and El Guavio)

INDICATOR#5: 1 business case study to identify a set of conservation interventions (activities) to address water security challenges in the Santiago-Maipo Water Fund

RESULTS: STRESS REDUCTION

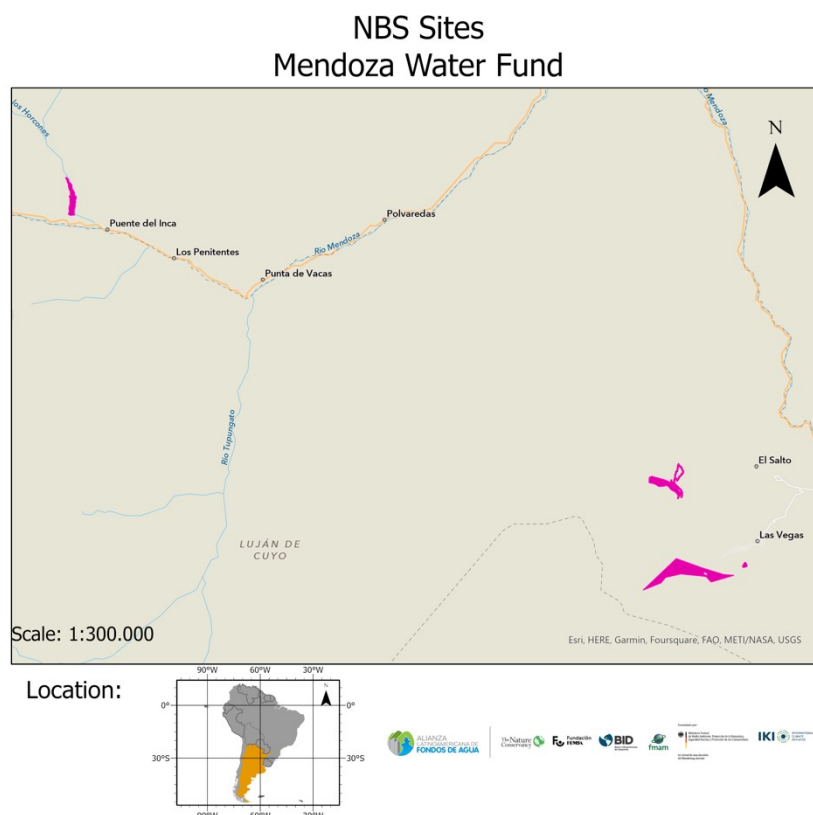
Nature-based solutions implemented in 5 major basins (Maipo-Aconcagua -Santiago Water Fund, Mendoza basin- Mendoza Water Fund, Iguazu 3 basin -Curitiba Water Fund, Motagua basin- Guatemala Water Fund and Magdalena 4 basin- Bogota Water Fund) that incorporate area of degraded agricultural land restored; area of forest and forest land restored; area of natural grass and shrublands restored; area of wetlands (including estuaries, mangroves) restored; area of landscapes under improved practices (hectares; excluding protected areas) and area of landscapes under improved management to benefit biodiversity.

INDICATOR#1: 9 implementation projects in 5 major basins that have resulted in restored, protected, or improved management in 4,898 hectares

INDICATOR#2: Securing water for over fourteen million inhabitants (14 M) of downstream populations and large water users and improving the human well-being and livelihoods of 17,454 upstream families

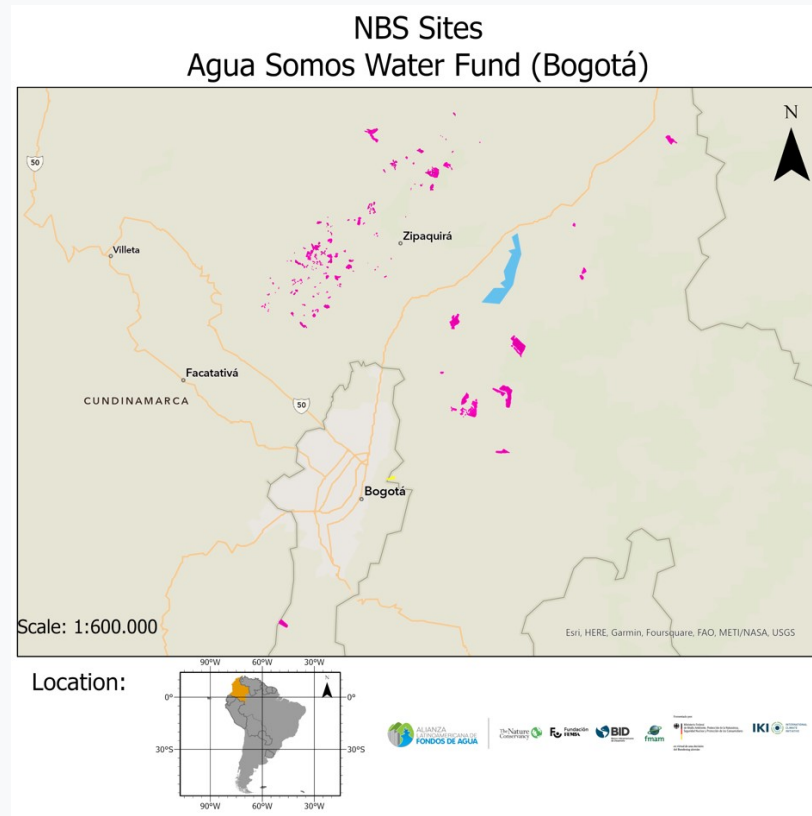
RESULTS: WATER RESOURCE AND ENVIRONMENTAL STATUS

The project has implemented 4,898 hectares that have impacted 14 million people. These results have been achieved in the following working sites:



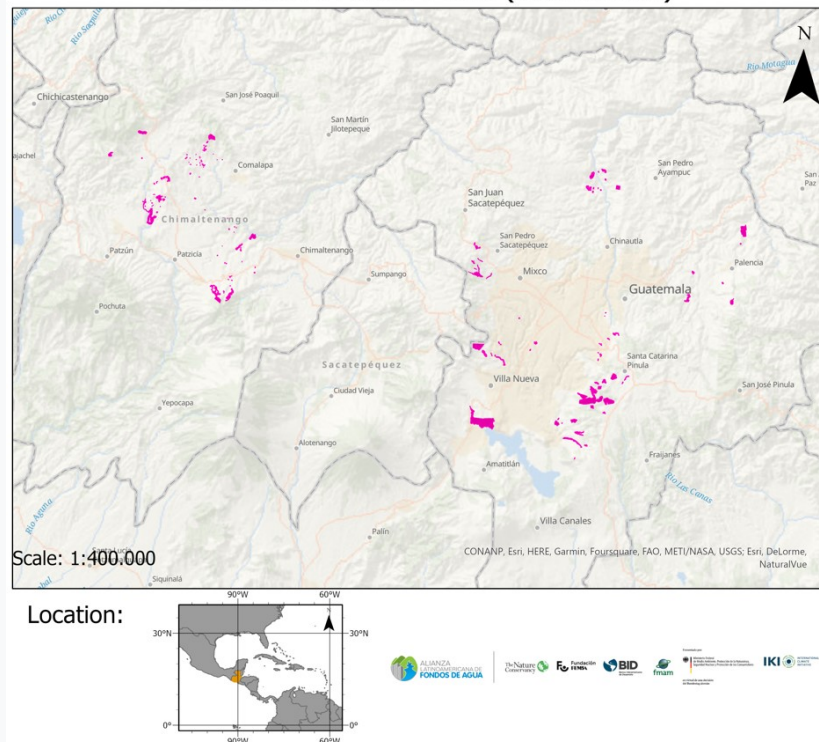
Mendoza implementation site: a total of 311.90 hectares have been implemented. 80 hectares have been conserved through the restoration of native vegetation and soil loss prevention, including passive restoration activities, revegetation, soil containment, and invasive species management where feasible. The intervention area in the Upper Mendoza River Basin includes the towns of Las Vegas, Piedras Blancas, Valle del Sol. All of these towns belong to the Potrerillos district. In addition, 2 other implementation projects have been achieved: first, the installation of a system of trails that contribute to the re-arrangement and conservation of 150 hectares of the Vallecitos area, Cordón del Plata Provincial Park (PPCP), through the implementation of improved management to protect strategic ecosystems and

contribute to the conservation of flora and fauna biodiversity to maintain the water supply of the Mendoza River basin. Finally, the third implementation project consists of the identification, preparation and execution of restoration and conservation actions in strategic areas for water supply in the upper basin of the Mendoza River through the implementation of community-based conservation and restoration program actions in priority water supply areas in the Upper and Middle Basin of the Mendoza River.



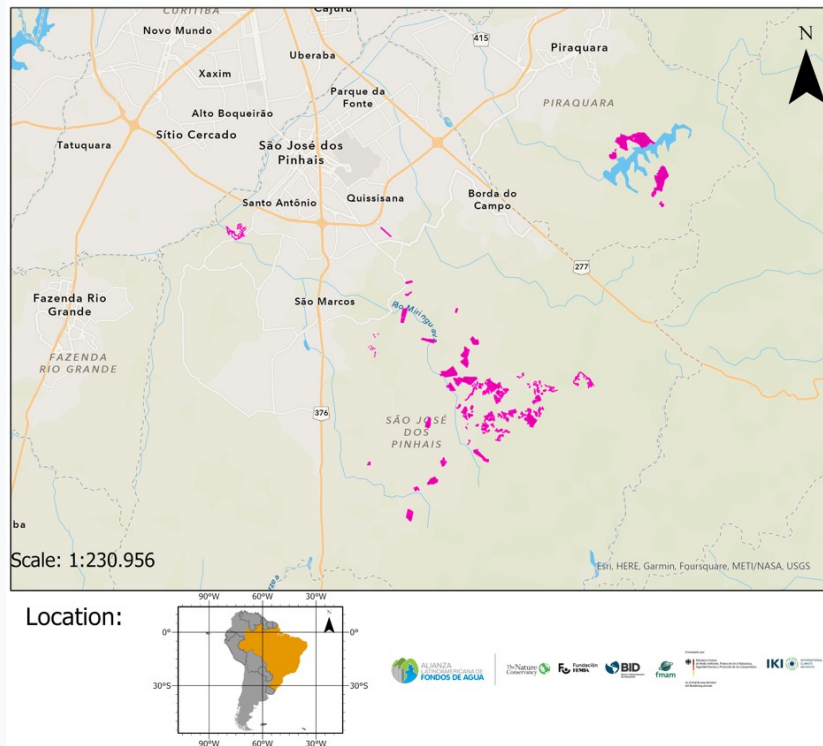
Bogota implementation site: The purpose of this implementation project, that has implemented 2339.8 hectares, is to implement Ecosystem-based Adaptation (EbA) strategies that contribute to addressing the challenge of water security in the area of influence of the Bogota Water Fund "Agua Somos". This project is being implemented within the framework of the mi Páramo® project in the high mountain complexes that feed the northern system of the Bogota water system. MiPáramo Project is a public-private initiative for the protection of the high Andean Forest and paramo de Guerrero, through voluntary conservation agreements with peasant families. Its vision is to ensure that the conservation of strategic ecosystems is socially valued, economically viable and that it contributes to the quality of life of families. This project was executed by the Fundación Alianza BioCuenca.

NBS Sites FUNCAGUA Water Fund (Guatemala)



Guatemala implementation site: FUNCAGUA (Guatemala City Water Fund extends to a total of 20 micro-watersheds (4 in Chimaltenango and 16 in the Guatemala Metropolitan Region - GMR) that provide water to the GMR covering an extension of more than 122,660 hectares. FUNCAGUA concentrates its efforts in these areas to promote water security for Guatemala City. This Water Fund implements green infrastructure actions, training, development of financial mechanisms and hydrological monitoring. Within this context, 1,442.9 hectares have been implemented with direct support from GEF funds and match funds (projects financed with Pepsico and Coca Cola Company funds). For these direct GEF funds, the development of an initiative named "Network of areas for water security in priority micro-basins of the Guatemala Metropolitan Region and its areas of influence, which provide ecosystem services for water regulation" was created. Under this initiative at least 300 hectares of conservation activities were implemented, and included in the Verde+Agua Platform. Verde+Agua is a digital platform lead by FUNCAGUA, that shows reforestation (green) corporate social responsibility activities. This platform not only gives recognition to the activities, but also directs them to the areas with the greatest impact on soil quality through maps of water recharge areas. Verde+Agua has attracted universities, municipalities, and the private sector, who are motivated to share information to show the activities they have implemented.

NBS Sites Curitiba Water Fund

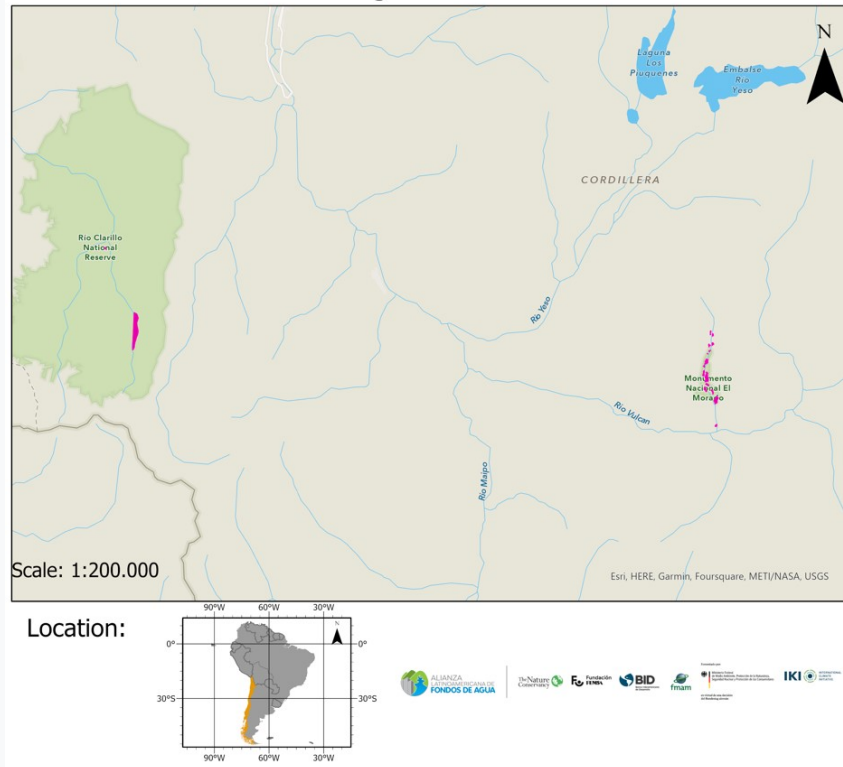


Curitiba implementation site: 733.92 hectares have been implemented within the project's scope. Actions aimed at the conservation of watersheds in the Metropolitan Region of Curitiba (RMC) have been developed by the LAWFP, through TNC. This project leverages on the Cities for Water Coalition and has been carried out in an integrated manner with RMC actors, considering the previous arrangements and the broad local capacities already installed. These actions meet local expectations, in which the private sector and government entities, seek to gather and enhance efforts for the conservation of one of the RMC's main supply basins – the Iguazu 3 basin. The group, called Viva Água Movement (MVA), is an initiative led by the Boticário Group Foundation, which seeks to engage different actors around a common objective – water security, to be achieved based in an orderly territorial development and the application of Nature-based Solutions (NbS), contributing to increase the region's resilience to events resulting from climate change. In this regard, the Curitiba Water Fund is represented by MVA.

This movement officially started at the end of 2019. It has the following targets by 2030:

- Conservation of 1,500 hectares of natural areas through financial mechanisms
- Recovery of 650 hectares of strategic areas for water availability
- Conversion of 500 hectares to sustainable production
- Support for 30 businesses with a positive socio-environmental impact

NBS Sites Santiago Water Fund



Santiago implementation site: 70.08 hectares were restored as part of a match project where Coca Cola and TNC implemented conservation activities.

KEY LESSONS LEARNED

The role and engagement of key local stakeholders as champions to support the development and creation of a collective action mechanism such as a Water Fund (WF) is key. This support is particularly important during the early phases to establish an agreement with a group of stakeholders called “promotor group”. This agreement should translate into commitments and an active involvement in the Water Fund.

Direct involvement of water utilities is important, as well as other large water users. The legal structure must allow public and private participation and facilitate financial contributions to the Water Fund.

The technical support of the local teams of the Executing Agency has shown to be an adequate way to manage the Technical Cooperation and address local issues as part of the implementation.

Flexible institutional arrangements as those found in Brazil could provide insight to adjust local needs and consider the local context.

Consistent investment in the Water Funds internal and external communications is crucial for Water Funds success. Furthermore, alternatives to include local communities need to be in place.

Frequent exchange among the Water Funds (in-person and online) seems to be a feasible option to give them agency. Supporting the consolidation of a community of Water Funds will give them a space to share knowledge, lessons learned and joint efforts for fundraising.