



INTERNATIONAL WATERS RESULTS NOTES

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Curitiba Water Fund -stakeholder visit - © The Nature Conservancy

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

1. Five water funds were strengthened in Argentina (Mendoza), Brazil (Curitiba), Chile (Santiago), Colombia (Bogotá) and Guatemala (Guatemala), serving as both financial and governance mechanisms to improve water security and foster collaboration among crucial stakeholders in stressed watersheds in Latin America and the Caribbean (LAC). Utilizing an ecosystem-based adaptation approach, these funds support the conservation and restoration of essential watersheds, indirectly benefiting over 14 million individuals reliant on these water sources for multiple purposes. The initiative has attracted 17 partners and leveraged more than US\$ 8 million in both public and private investments.

2. Nature-Based solutions (NbS) were implemented in **5,561 hectares** within key watersheds that are crucial for water supply and ecosystem services maintenance and enhancement: These included Maipo-Aconcagua Basin / Santiago Water Fund (41 ha), Mendoza River Basin / Mendoza Water Fund (1,003 ha), Iguazu River Basin / Curitiba Water Fund (734 ha) and Motagua basin/Guatemala Water Fund (1,443 ha) and Magdalena basin / Bogota Water Fund (2,340 ha). As part of the NbS portfolio, relevant interventions encompassed targeted land protection, revegetation and wetlands creation and restoration.

3. The project was successful in strengthening the capacity of Water Funds and key stakeholders around watershed management with two main capacity building events. The 4th Water Funds Summit, held in Mexico City from July 17-19, 2019, with 370 participants from 26 countries. The Water Funds Network meeting held in Bogota from January 31 to February 2, 2023, with 44 attendees. In addition, relevant knowledge products and technical studies were developed related with Water security indicators, and business cases linked with the value of nature-based solutions for water.

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

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PROJECT OBJECTIVE

Support the creation and strengthening of five (5) water funds across LAC that serve as innovative governance and financial mechanisms for the conservation for key watersheds in five (5) cities (Bogota, Curitiba, Guatemala, Mendoza and Santiago). The main outcome is the enhancement of water ecosystem services through the restoration and protection of said basins under a systemic perspective, aiming to connect water uses downstream with upper watershed land stewards that produce critical ecohydrological benefits. The objective was achieved through i) the design and monitoring of water funds with on-the-ground interventions; 2) the provision of technical assistance; 3) the promotion of capacity building activities, knowledge creation and dissemination and training activities.

RESULTS: PROCESS

Main highlights under these components are:

Component 1: Water Fund's design and monitoring

Creation and strengthening of the Santiago Water Fund (Maipo- Aconcagua Basin): The Santiago-Maipo Water Fund was launched on October 15th, 2019, in Santiago. The fund was created with the leadership of the Governor of Santiago, the Inter-American Development Bank (IDB) and The Nature Conservancy (TNC). This Water Fund is supported by a range of organizations, including government, private and civil society organizations, such as the Association of Rural Municipalities (AMUR) and Aguas Andinas. Key deliverables of the project include the development of a strategic and communication plan and the appointment of a Water Fund Director. The Maipo Water Fund was recognized as an example of successful partnerships and cooperation for water in The United Nations World Water Development Report 2023.

Curitiba Water Fund Creation (Iguazu Basin): Movimento Viva Agua (MVA), a newly established Water Fund, collaborated with the LAWFP with support of the project to promote water security through organized territorial development and nature-based solutions (NbS). Led by the Grupo Boticário Foundation, a major cosmetics company in Brazil, MVA aims to unite various stakeholders around this common goal. The initiative enhances the region's resilience to climate change impacts on water supply in the Metropolitan Region of Curitiba by involving local actors and building upon existing arrangements and capacities. The project worked closely with MVA to implement technical hydrological analysis to guide implementation of NBS as well as with the development of the Water Fund's Strategic Plan. The Curitiba example sets a precedent for creating Water Funds in regions without Basin Committees or where they are not fully established, demonstrating the effectiveness of partnerships in promoting sustainable water management.

Bogota Water Fund strengthening (Magdalena Basin): In December 2021, the founding partners (Fundación Bavaria, Coca Cola FEMSA, and Mexichem Pavco) signed the final version of the legal creation document, which incorporated the Water Fund as a legal entity in the national registry. Once legally established, the project provided technical support by conducting a study to identify a portfolio of nature-based solutions for water security. This study aimed to enhance the effectiveness of the Water Fund's efforts towards sustainable water management.

Mendoza Water Fund creation and operation (Mendoza Basin): The Mendoza Water Fund (WF) was officially launched on May 5th, 2022, with the participation of local authorities, including the Governor of the Province of Mendoza, Rodolfo Suarez. During the launch event, the Promotor Group, consisting of key stakeholders such as the Irrigation General Department, Environment Secretariat, Quilmes Brewery, Aguas Mendocinas, and Danone Argentina, signed the legal creation document. The project supported the development of a strategic and communication plan for the Water Fund. These plans are essential for the successful operation of the Water Fund, ensuring its effectiveness in addressing water-related challenges in the region.

Guatemala Water Fund Strengthening (Motagua Basin): The strategic plan, engagement plan, and financial plan for the Guatemala Water Fund (FUNCAGUA) were finalized and formally presented to the Water Fund Board. These crucial documents serve to unite all board members around a shared vision concerning water security challenges and priority interventions. Additionally, the strategic plan pinpoints the necessary funding for implementing the identified priority interventions.

Component 2: Water fund's technical assistance and on-the ground implementation

The project successfully supported five water funds in implementing nature-based (NbS) solutions on the ground, resulting in the conservation, restoration, and improved management practices of 5,561 hectares of land crucial for water provision and biodiversity. The implementation of NBS included targeted land protection of 3,988 hectares, restoration of 892 hectares, and improved management within protected areas of 681 hectares. This work provided direct benefits to the livelihoods of 17,863 families living upstream and created a scaling plan for improving watershed integrity of water sources that provide water for 14,726,000 people living in five cities: Santiago, Bogota, Curitiba, Guatemala, and Mendoza. These achievements demonstrate the effectiveness of NBS solutions in promoting sustainable water management and enhancing the resilience of communities and ecosystems. The project was able to mobilize more than US 8 million for watershed management and biodiversity protection from public and private organizations.

Component 3: Training, Knowledge and capacity

1.1 Training and capacity building:

The 4th Water Funds Summit, sponsored by the Latin America Water Funds Partnership, was held in Mexico City from July 17-19, 2019, and brought together 370 participants from 26 countries. Topics of discussion included sustainable financing, urban water security, Water Funds' role in water security and investment, and private sector involvement. The 5th Water Funds Network meeting was held in Bogota

from January 31 to February 2, 2023, with 44 attendees, including 24 Directors. The meeting focused on scientific tools, policy approaches, and financial sustainability. Attendees also participated in the 2023 UN Water Conference in New York. These events have helped to build the capacity of Water Funds and stakeholders to effectively manage watersheds and promote sustainable water management practices.

3.2 Knowledge development: The project developed science-based analysis to influence decision making towards inclusion of nature-based solutions for watershed management. Said products included hydrological modelling and business case studies. In addition, the [Water security metrics dashboard](#) can be highlighted. This paper provides an overview of existing methodological approaches to assess water security in Latin America through a set of quantitative metrics. A framework to develop these water security metrics is proposed based on a literature review of existing approaches and sources of data. As a case study application, the proposed water security metrics framework is applied to a group of sites within the Latin America Water Funds Partnership to understand its applicability, challenges in implementation, help identify information gaps, and provide an initial assessment of water security in the region.

RESULTS: STRESS REDUCTION

- Stress reduction measurements incorporated by project through improved management of Integrated Water Resource Management: 5,561 hectares in total.

Local investments:

- Indicator # 1: Area of landscapes under improved management to benefit biodiversity 3,987.7 hectares in Curitiba, Guatemala, Bogota, Mendoza.
- Indicator # 2: Area of degraded agricultural land restored 296.05 hectares in Guatemala, Curitiba, and Mendoza.
- Indicator # 3: Area of forest restored 385.7 hectares in Guatemala, Curitiba, Bogota, Mendoza.
- Indicator # 4: Area of natural grass and shrublands restored 166.88 hectares in Santiago, Bogota, Mendoza.
- Indicator #5: Area of wetlands restored 43.48 hectares in Santiago and Mendoza.
- Indicator # 6: Improved management in protected areas 681.19 hectares in Mendoza watershed.

RESULTS: WATER RESOURCE AND ENVIRONMENTAL STATUS

Indicator # 1: Direct beneficiaries supported by the project 17,863 persons (7,944 female, 9,919 male).

Indicator # 2: Co-financing from public and private institutions to support the objectives of the project US\$ 8 million.

KEY LESSONS LEARNED

The active involvement and commitment of local stakeholders is crucial for fostering the establishment and growth of a collective action initiative like a Water Fund (WF). These stakeholders, acting as advocates or champions, play a vital role in the early phases of the initiative. During this time, an agreement with a group of stakeholders, known as the "promotor group," should be established. This agreement should translate into tangible commitments and active involvement in the Water Fund.

The direct involvement of water utilities and other large water users is crucial for the success of the Water Fund. It is important to have a legal structure that allows both public and private participation and facilitates financial contributions to the fund. This participation not only enables the inclusion of new water utility regulations but also allows for potential modifications in water tariff policies. The collective action platform led by the Water Fund can help achieve agreements that serve as the foundation for necessary modifications in public policies.

Flexible institutional arrangements, such as those observed in Brazil where support is provided to existent governance as watershed committees, can offer valuable insights for adapting to local needs and considering the specific local context.

Making consistent investments in internal and external communications is essential for the success of Water Funds. Additionally, it is crucial to have strategies in place to actively involve and include local communities in the efforts of the Water Funds. Establishing frequent in-person and online exchanges among Water Funds is a feasible option to empower them. Supporting the consolidation of a community of Water Funds will provide them with a platform to share knowledge, lessons learned, and collaborate on fundraising efforts.

Water Funds require a sustainable investment model, and therefore, need to secure a high Return on Investment (ROI) in terms of economic, social, and environmental benefits. The project developed several technical studies in terms of determining ROI, which left important recommendations. To achieve this, Water Funds can provide an economic and financial analysis that identifies potential interventions, such as NBS solutions or source water protection activities. The subsequent steps in the analysis help the team narrow down the list and determine which interventions will be most cost-effective. It is important to note that the time profile of costs and benefits for many NBS solutions can impact the ROI. Higher discount rates tend to lower the ROI, while lower rates tend to increase it.

Nature-based solutions implemented in Water Funds encompass a broad range of measures and strategies aimed at enhancing the resilience of ecosystems and the adaptive capacity of individuals to climate change. These solutions offer a multitude of benefits, such as improving water quality by reducing nutrient levels, regulating flows, controlling erosion, and reducing water and/or land temperature through forest and wetlands restoration. Finally, it is important to establish long-term hydrological monitoring protocols on the field that can provide a better understanding of the impact of nature-based solutions on hydrological processes, and by this have a permanent process of adaptive management and influence adequate decision making.