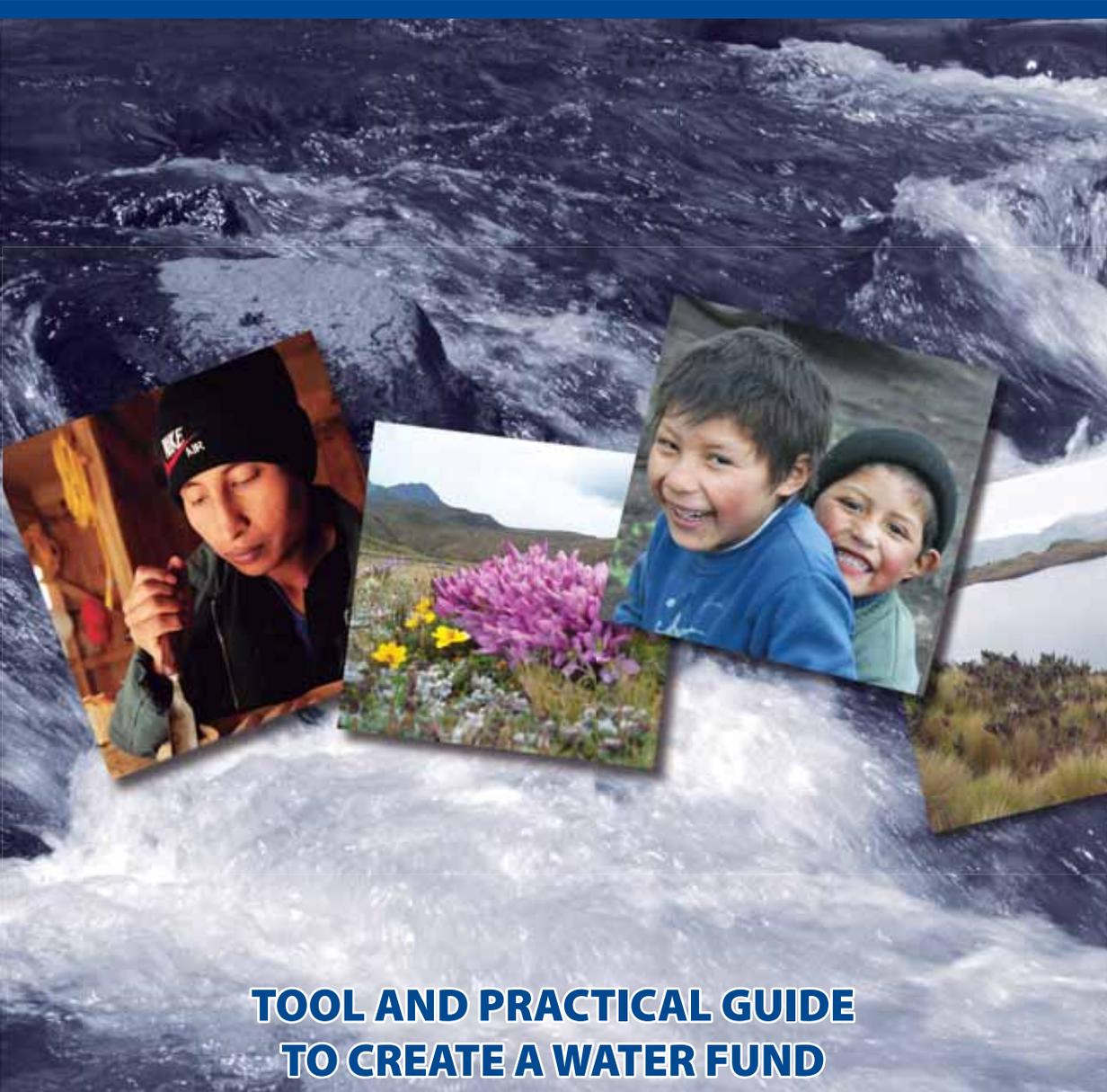




USAID
FROM THE AMERICAN PEOPLE

WATER FUNDS



TOOL AND PRACTICAL GUIDE TO CREATE A WATER FUND

Lessons Learned and Experiences in Ecuador



USAID | **ECUADOR**
FROM THE AMERICAN PEOPLE

GUIDE AND PRACTICAL TOOL TO CREATE A WATER FUND

Lessons Learned and Experiences in Ecuador

July 2014

The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.



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ACRONYMS

CELEC:	Corporación Eléctrica del Ecuador
CESA:	Central Ecuatoriana de Servicios Agrícolas
CFN:	Corporación Financiera Nacional
CI:	Conservación Internacional
COSUDE:	Cooperación Suiza para el Desarrollo
DMQ:	Distrito Metropolitano de Quito
EMAPA:	Empresa Municipal de Agua de Ambato
EMAPAL:	Empresa Municipal de Agua Potable y Alcantarillado de Azogues
EPMAPS:	Empresa Pública Metropolitana de Agua Potable y Saneamiento
ETAPA:	Empresa Municipal de telecomunicaciones, Agua Potable y Saneamiento
FAN:	Fondo Ambiental Nacional
FMPLPT:	Fondo de Manejo de Páramos y Lucha contra la Pobreza de Tungurahua
FONAG:	Fondo para la Protección del Agua de Quito
FONAPA:	Fondo de Agua para la Cuenca del Río Paute
FONES:	Fondo para la Protección del Agua de Espíndola
FOPAR:	Fondo para la Protección del Agua de la sub-cuenca del Río Chambo en Riobamba
FORAGUA:	Fondo Regional del Agua
GAD:	Gobierno Autónomo Descentralizado
GIZ:	Cooperación Técnica Alemana/Deutsche Gesellschaft für Internationale Zusammenarbeit
INTERJUNTAS:	Federación de Organizaciones de Usuarios de Agua de la Provincia de Chimborazo
IRD:	Instituto Francés para la Investigación y el Desarrollo
MEA:	Millenium Ecosystem Assessment
NGO:	Non-Governmental Organization
PEA:	Programa de Educación Ambiental
PROCUENCAS:	Fondo para la Protección de Cuencas en Zamora
TNC:	The Nature Conservancy
USAID:	United States Agency for International Development
WWC:	World Water Council



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PREFACE

Water is vital for life on Earth. Nevertheless, almost 800 million people around the world lack access to clean water, and every year, nearly two million children die due to diarrheal diseases because of poor water quality. Water sources are threatened by contamination, excessive demand, insufficient funding for its management, and the effects of climate change. These factors put water resources under great pressure and leave efficient management and equitable distribution a growing challenge both locally and regionally.

The relationship between water sources and conservation of natural habitats is increasingly evident, therefore supporting the protection and conservation of these ecosystems should be a priority. Institutionally, water management faces a complex situation from multiple guiding organizations, with divergent points of view and needs, limited participatory platforms, and insufficient controls.

Despite numerous efforts to protect watersheds or set up projects that promote integrated water resource management, there are few programs that have really made a direct link between the natural areas where water sources are located and the people that depend on these sources. Strengthening this relationship represents a “win-win” situation, as it protects water resources and biodiversity, and improves the quality of life of local residents.

For several years, the United States Agency for International Development (USAID) has supported local initiatives to better manage water resources, improve the maintenance of ecosystems, and strengthen governance structures. These efforts have focused on preserving water sources and their associated ecosystems as the basis for sustainable development.

Latin America and Ecuador, in particular, has been a model for promoting the importance of the relationship between natural areas and watershed conservation. Since the 1990s, USAID/Ecuador has promoted the creation of water funds as a financial tool and a platform for the management and conservation of water resources. Water funds have emerged as an alternative to generate financial



resources that allow for the protection and maintenance of ecosystems related to water provision. The funds have managed to bring together different actors with a common goal and have become a successful mechanism that has been replicated in many countries.

Of course, it's impossible to talk about this model without mentioning the success of the Quito Water Fund (FONAG), which was created in 2000 as a trust with an 80-year lifespan. Started with just \$21,000 of capital, it has grown to a fund of more than \$12 million, bolstered by a two percent surcharge on the monthly water bill of users in the Metropolitan District of Quito (Ecuador's capital). Money generated from the capital is invested in programs to protect water sources that supply the capital. The mechanism has been so successful that in the last decade at least ten water funds have been created in Ecuador and in other Latin American countries.

Since FONAG's creation, USAID has provided on-going support for FONAG, as well as for the development of six new water funds in different regions of Ecuador. Now, with fourteen years of experience, USAID decided it would be useful to systematize and analyze the key factors and lessons learned. The present guide is based on USAID's experience with these funds and describes the different stages and requirements to create a fund—particularly, how to obtain the financial, institutional, political and social sustainability that each successful fund requires.

Through this document, USAID hopes to contribute to the variety of local efforts to better manage water resources and biodiversity. USAID will continue to learn from and accompany local initiatives for watershed conservation.

Christopher M. Cushing
Director
USAID/Ecuador







INTRODUCTION

The importance of ecosystems for the production of goods and services that contribute to the well-being of humans is evident. Significant changes to ecosystems, linked to development and climate change, have occurred more rapidly than in any other age. There is an omnipresent and growing challenge of preventing and reversing the degradation of ecosystems and at the same time satisfying the needs of humans (MEA 2005).

Water is one of the most fragile natural resources. In recent decades, public and private investment has focused little attention on the protection of water sources or its final destination. Investment in waste water treatment has been minimal; it is estimated that 33 percent of rural populations lacks basic sanitation services in Latin America (World Bank 2013).

The distribution of water in Latin America is not homogeneous and shortages are common in densely populated areas and in rural areas prone to droughts; moreover, the quality of the water is a concern (Aguasat 2008). About 15 percent of the population has no water supply, 21 percent lacks sanitation services and only 66 percent has access to sanitation systems that are connected to the sewer system (PAHO/WHO 2001). Agriculture is the largest water user in rural areas, accounting for 70 percent or more of the amount consumed. Pollution is a significant problem affecting water resources. It is estimated that between 40 percent and 50 percent of the water used comes from aquifers, which are subject to contamination from mining activities and agriculture. The lack of sewage treatment further increases the risk of contamination (WWC 2004).

For these reasons, it is important to consider various trends that affect water supplies. Increased water demand is driven by a variety of factors, including; but not limited to: increased crop production for first-generation biofuels, urban growth, and increased demand for meat and grains in rapidly developing countries around the world.

Ecuador is not very different. Despite being rich in water resources, the water is not evenly distributed. Approximately 87 percent of the population is based on the Pacific slope, which has only 11.5 percent of Ecuador's water supply; in contrast, the Amazon slope has 89.5 percent of the flow and only 13 percent of the population. Coupled with the fact that only eight percent of sewage is treated (SENAGUA 2012), the situation of water resources is critical in Ecuador and requires special attention.

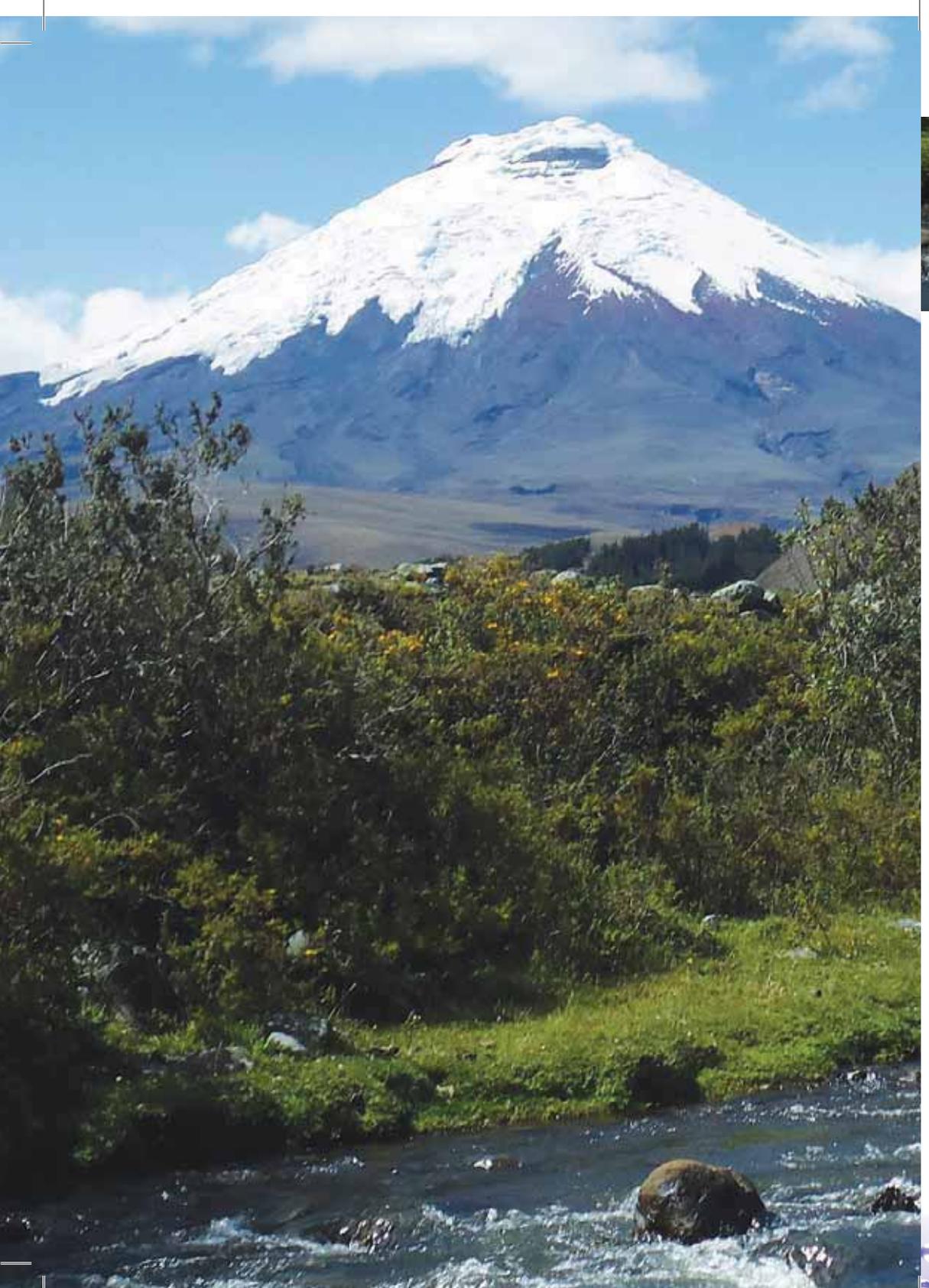
Several mechanisms have been applied to the conservation of water. These approaches include command and control, which relies on the application of laws and regulations to govern the use of water. Growing in popularity are market mechanisms, which seek to modify the behavior of users and suppliers through the use of taxes and subsidies (Campos et al 2006). Over time, innovative mechanisms, such as payments for ecosystem services, have been created that value positive externalities (beneficial services that users receive but do not pay for), and in turn provide an incentive for resource owners to provide the service. Also financial mechanisms, such as environmental funds facilitate the implementation of policies and conservation actions complementing government activities and encouraging the participation of different actors.





Water funds are innovative mechanisms that emerged as a way to help guarantee long-term financing for the protection of watersheds and their associated biodiversity. In addition to providing long-term funding for conservation, the funds are also created with the idea that they can invest in research activities that over time will provide a better understanding of how best to manage water resources so that the fund's resources can be used more effectively. Moreover, a fund enhances the principle of co-responsibility and, ideally, brings together different users with a common goal.

This document is the result of interviews with key stakeholders, analysis of literature, meetings, and visits to water funds in Ecuador. This process and the work experience of more than a decade allowed defining the different phases needed to create a water fund, as well as to identify the characteristics of each phase. The document emphasizes the experience of FONAG and its work to creating and strengthening other water funds in the country, under an agreement with USAID from 2007 through 2014.





CHAPTER I

THE EXPERIENCE IN ECUADOR

History of Water Funds

Interventions for the conservation and management of natural resources have generally taken place in the short- and medium-term through specific activities. At the same time, scientific advances have not always been accompanied by the availability of financial resources for implementation. Water funds start from the need to guarantee continuous and long-term economic resources to fund activities that promote conservation and guarantee the provision of ecosystem services. Water resources can have a variety of problems, due to either its abundance or scarcity, and in turn this creates the need to bring together various actors for its care.

The close relationship between the protection of ecosystems and the availability and quality of water is not always obvious. In Ecuador, natural areas are the main water sources. In the Metropolitan District of Quito, for example, at least seven of every ten glasses of water for human consumption come from protected areas outside of its geopolitical boundaries (FONAG 2010).

That is how the idea of creating a long-term financial mechanism that assures economic resources to invest in the maintenance and conservation of the water sources originated. At the same time, it brings together different actors (public, private and mixed) with common issues, to contribute to the same goal.

FONAG pioneered this type of financial mechanism in Ecuador. After several years of negotiation, it was established in Quito, in January of 2000. Under Ecuador's Stock Market Law¹ of 1999, a contract

¹<http://www.bolsadequito.info/normativa/normativa-del-mercado-de-valores/ley-de-mercado-de-valores/>

was created that defines the terms and conditions of the fund, its structure, and the purpose of its resources (Lloret 2005). A fund may receive contributions from public sources, private organizations and non-governmental organizations (NGOs), for a period of 80 years. An independent finance manager invests the trust's capital, and only the investment revenues are used for specific actions, defined by the constituents (members) of the fund.

Founded by two organizations, the Metropolitan Public Company of Water Supply and Sanitation (EPMAPS) and The Nature Conservancy (TNC), FONAG was designed so that it could gain additional members. Over time, other important stakeholders in the region realized the importance of FONAG and joined. These include the Quito Power Company (EEQ) (2001), the National Brewery (2003), the Swiss Development Cooperation (2005), Tesalia Springs Co. (2007), and CAMAREN Consortium, which took over the participation rights of the Swiss Development Corporation in 2010.

Though not a member of the operating board, USAID provided technical and financial support to help create FONAG. In the late 1990s, USAID provided funding to TNC to work with local stakeholders to raise the idea and its advantages of a fund, directly leading to its creation in 2000.

Over the years, USAID helped implement a variety of activities. In 2007, USAID helped FONAG to strengthen its institutional and technical capacity, and in addition helped create similar mechanisms in other Ecuadorian watersheds.

The ability of FONAG to successfully build its fund is due to Municipal Ordinance 213² issued on March 2, 2007. The ordinance directs EPMAPS to deposit one percent of monthly water bills into the fund, with the percentage increasing by 0.25 percent annually for four years, until it reached two percent.

²http://www7.quito.gob.ec/mdmq_ordenanzas/



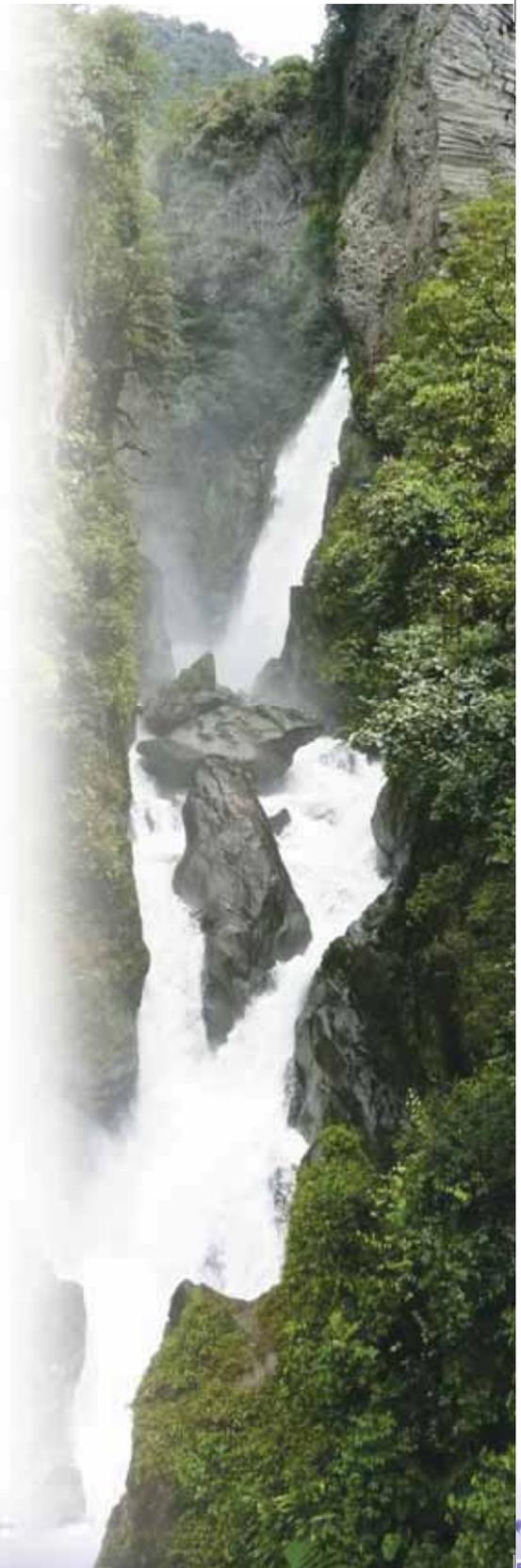
To fund its annual activities, FONAG uses the returns from its trust fund. In addition, FONAG has received significant contributions from donors and partners, which have financed up to 80 percent of its activities. These donors included: the World Bank, the Inter-American Development Bank (IDB), USAID, the German Technical Cooperation (Deutsche Gesellschaft für Internationale Zusammenarbeit-GIZ), the Municipality of the Metropolitan District of Quito (MDMQ), and the French Institute for Research and Development (IRD), among others.

FONAG's mission is to rehabilitate, care for, and protect the watershed supplying Quito's water. More than 70 percent of the watershed is outside of the political boundaries of Quito (and even outside of the province in which Quito resides), highlighting the importance of coordination between different political entities. Its goal is to promote dialogue, improved decision making, research, and the use of appropriate technology to achieve integrated water resource management (FONAG 2006).

A key activity of FONAG is strengthening local institutions, so that they are better able to protect the watershed. Despite the short time of its operation, FONAG is already considered a major player in the management of water resources, participating actively as a promoter in the Guayllabamba Basin Council.

FONAG was initially designed so that other institutions would implement projects. This did not have the expected results, so instead the Board of Directors decided that FONAG itself should implement the activities it funds in the following programs: (a) recovery of vegetation cover; (b) training; (c) communication; (d) environmental education program; (e) surveillance and monitoring of protected areas; and (f) water management (FONAG 2006). FONAG allocates 20 percent of the resources to the co-financing (other sources contribute funding) of various projects and 80 percent to the implementation of permanent programs³.

³Since 2012 FONAG revised its activities and eliminated the Training Program.



This experience has crossed borders and the model has been replicated in other Andean region countries, such as Colombia (Bogotá and Cali funds) and in Peru (Lima Fund) (FONAG 2010). The current challenge is to create sustainable funds that last over time.

FONAG has provided technical assistance and encouraged the replication of the fund model in Ecuador. Since 2007, with the assistance of USAID, FONAG supported six⁴ water fund initiatives:

- Paute Water Fund (FONAPA)
- Tungurahua Water Fund for High–grassland Management and Poverty Reduction (FMPLPT)
- Riobamba Water Fund for the Protection of the Chambo Sub–Basin (FOPAR)
- Regional Water Fund for Loja, Zamora Chinchipe and El Oro (FORAGUA).
- Zamora Water Fund (PROCUENCAS)
- Espíndola Water Fund (FONES)

Water Fund for the Paute River Basin (FONAPA)

In September 2008, the Paute Water Fund was established with contributions from the Cuenca Water and Tele–communication Company (ETAPA), TNC, HidroPaute, ElecAustro, University of Cuenca, Fundación Cordillera Tropical, and the Municipal Company of Water Supply and Sewerage of Azogues (EMAPAL). There is no ordinance that dictates mandatory contribution to FONAPA, and instead they are voluntary. The trust is managed by the National Financial Corporation (CFN).

FONAPA aims to support public–private projects that contribute to conservation in key areas of the Paute basin. Their strategy focuses on actions such as training, education and environmental awareness for community leaders, and sustainable productive activities. FONAPA was originally an executor of activities but is currently revising the type of implementation that it will adopt, perhaps as a financier.

⁴The Zamora (ProCuencas) and Espíndola (FONES) Funds became part of a regional effort in their territory FORAGUA.



Tungurahua Water Fund (FMPLPT)

The Province of Tungurahua, together with the German Cooperation Agency (GIZ), promoted the creation of a water fund for the province. The fund was created in response to the needs raised by indigenous movements in the “Water Parliament” (a local water governance initiative) of the provincial government (FMPLPT, 2011). In June 2008, the FMPLPT was created with the Tungurahua Provincial Government, representatives of three indigenous movements in the province, the Municipal Water Company of Ambato (EMAPA), Hydroelectric Companies–Hidroagoyán and Hidropastaza. They provide fixed annual contributions; however, there is no binding document for these contributions. The trust is managed by the CFN.

The FMPLPT works on: environmental education, monitoring, training, intercultural, and also provide financial support for productive initiatives in sensitive areas (FMPLPT 2012). This fund implements activities directly and co-finances other projects.

RIOBAMBA WATER FUND FOR THE PROTECTION OF THE CHAMBO SUB-BASIN (FOPAR)

FOPAR was established in September 2008 in the context of the Water Resources Forum (a local governance water initiative) of the Chimborazo Province. The founding members of FOPAR are: the Municipality of Riobamba, the Ecuadorian Agricultural Services Center (CESA), and the Federation of Organizations of Water Users in the Province of Chimborazo (INTERJUNTAS). Contributions are made voluntarily by the majority of the constituents, but there is also a municipal ordinance for annual contributions from the Municipality of Riobamba. The trust is managed by the CFN.

Initially, the fund was created with the mission of rehabilitating and protecting the micro-watersheds that comprise the Chambo River Sub-Basin (FOPAR, 2009). FOPAR contributes to the co-financing of activities related to environmental education, protection of sources, springs and water courses; surveillance and monitoring; integrated water resources management, and information/communication to the water users and the public in general (FOPAR, 2012). Actions are executed through CESA, which acts as Technical Secretariat of the fund.

REGIONAL WATER FUND (FORAGUA)

FORAGUA was created by five municipalities in southern Ecuador: Celica, Loja, Macará, Puyango and Pindal, with the financial and technical support of Nature & Culture International NGO. The fund was created in 2009 in order to conserve, protect and restore their environmental assets, especially those related to water and that are most fragile and threatened. The contribution mechanism is regulated by municipal ordinances that each municipality created when entering FORAGUA. Contributions are made through environmental tariffs from each municipality. The fund's resources are used in integrated watershed management programs of the municipal members (FORAGUA, 2012).

Through 2014, eleven municipalities have joined FORAGUA, as it is viewed as an effective alternative to sustainably finance the protection of their watershed. Zamora and Espíndola Municipalities have also joined FORAGUA, as explained later. The trust is managed by the CFN.

FORAGUA is a financier fund that provides technical assistance to constituent municipalities so that they can implement activities. FORAGUA is responsible for evaluating and financing the projects submitted by municipalities, and provide adequate follow-up.

Zamora Water Fund (PRO-CUENCAS)

Pro-cuencas was created as a mechanism for financial resource management and administration to ensure the implementation of initiatives that promote natural resources and biodiversity in the watersheds that supply water to the municipality of Zamora. The fund seeks to link water users with conservation of natural resources. Activities are carried out by Pro-cuencas and focus on environmental education, monitoring, communication, productive projects, and institution-building.

The fund was founded in March 2006, by the Municipality of Zamora, the Arcoiris Ecological Foundation, the Ministry of the Environment, TNC, and Conservation International Ecuador (CI). Contributions received by Pro-cuencas are voluntary, as there is no legally binding mechanism to raise funds. Given it was a relatively small fund, maintenance and operation costs were high for the fund to become sustainable. Therefore, Pro-cuencas decided to join the local effort of FORAGUA and continue to operate within the Municipality as ProCuencas, but formally is part of the regional fund.

Espíndola Water Fund (FONES)

FONES started in 2008 as a result of the Pro-Hídirco Project (a local water project) in the Municipality of Espíndola, in Loja Province. Initially formalized as a commercial trust, FONES found, however, that

a commercial trust carries too many expenses for a relatively small organization. To reduce costs, the Board of Directors decided to establish a sub-account within the FAN.

FONES focuses on protecting water resources, through environmental education, small productive projects, communication, monitoring, and institutional strengthening. Initially, it worked within Espíndola exclusively, but expanded its vision to five municipalities along the Catamayo River: Espíndola, Quilanga, Sozoranga, Gonzanamá and Calvas.

It is important to note that FONES is similar to PRO-CUENCAS, in that there is no legal document that formalizes the contributions to the fund, and instead contributions are voluntary. In addition, being a relatively small fund, FONES (like PRO-CUENCAS) could not afford the cost of formalizing itself as a commercial trust. As a result, it was recommended by USAID that FONES join FORAGUA, which works in the same area. Currently, they are in the process of becoming a member of FORAGUA.



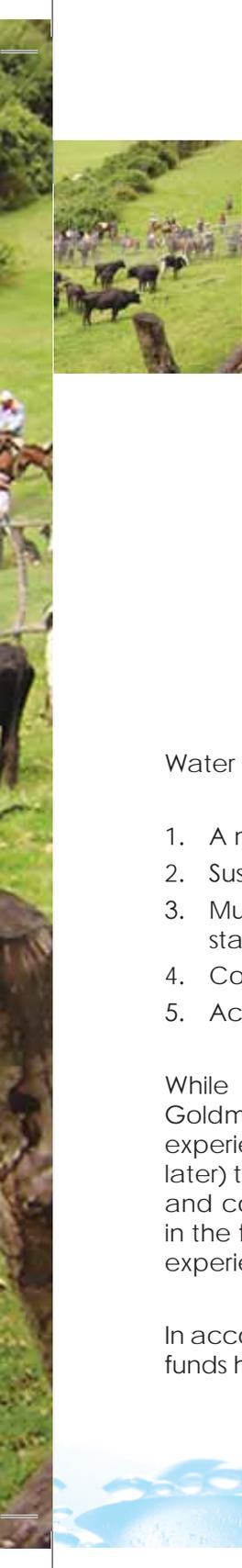
Table No. 1 Water Funds in Ecuador.

		
Created	2000	2008
Members	EPMAAP-Q, EEQ, TNC, Tesalia, Cervecería Nacional, CAMAREN	ETAPA, ELECAUSTRO, CELEC-HIDROPAUTE, TNC, University of Cuenca, Fundación Cordillera Tropical, EMAPAL
Lines of Action	<ul style="list-style-type: none"> • Vegetation recovery • Communication • Environmental education • Surveillance and monitoring of protected areas • Water management 	<ul style="list-style-type: none"> • Institutional strengthening • Dissemination and communication • Training, education and environmental sensitization • Protection, conservation and recovery of water resources and ecological environment • Monitoring and control
Protected Areas and Related Basins	<ul style="list-style-type: none"> • Antisana Ecological Reserve • Cotopaxi National Park • Cayambe Coca National Park • Guayllabamba Basin 	<ul style="list-style-type: none"> • El Cajas National Park • Sangay National Park • Paute River Basin

Source: Adapted from FONAG-USAID, 2010

		
2008	2008	2009
Municipality of Riobamba, CESA, Federation of Organizations of Water Users of the Province of Chimborazo – INTERJUNTAS	Province of Tungurahua Council, Hidroagoyán, Hidropastaza, EMAPA, three indigenous groups from the province of Tungurahua	Municipalities of Celica, Loja, Macará, Pindal, Puyango, Chinchipe, Zamora, Nature and Culture International
<ul style="list-style-type: none"> • Environmental education • Productive projects • Surveillance of protected areas • Institutional strengthening 	<ul style="list-style-type: none"> • Communication • Environmental education • Protected areas • Strengthening of institutional capabilities 	<ul style="list-style-type: none"> • Institutional strengthening • Qualification, follow-up and assessment of municipal projects
<ul style="list-style-type: none"> • Chimborazo Fauna Production Reserve • Sub – Basin of the Chambo River 	<ul style="list-style-type: none"> • Llanganates National Park • Chimborazo Faunal Production Reserve • Ambato River Basin 	<ul style="list-style-type: none"> • Podocarpus National Park • Yacuri National Park • Fragile and threatened ecosystems of the provinces of Loja, El Oro and Zamora Chinchipe





CHAPTER II

FROM THEORY TO PRACTICE

A Water Fund is a long-term financial mechanism that is stable, transparent and that allows different actors to join efforts to solve a common problem around integrated watershed management.

Water funds are defined by the following components for the formation of a fund:

1. A mechanism to ensure ecosystem services;
2. Sustainable financial mechanism with transparent management;
3. Multi-actor institutional mechanism, including public and private stakeholders;
4. Concrete actions for conservation; and
5. Accountability.

While the general structure and the components mentioned by Goldman et al. are still valid, it has been seen that according to experiences in Ecuador, there are certain key elements (explained later) that must have equal or higher importance before the creation and consolidation of a fund. These will be analyzed in greater detail in the following chapters and have been validated according to the experiences of the cases in Ecuador.

In accordance with the local situation and to the different needs, water funds have adopted three approaches to implement activities:

1. The fund only generates economic resources and monitors the work of other institutions, which are in charge of activity implementation;
2. The fund generates economic resources and is also the executor of activities; and
3. The fund is a mixed figure. A portion of the available financial resources is performed by the technical secretariat of the fund and the other is used to finance activities implemented by others.

Experience has shown that the role of water fund is not static. FONAG, for example, began as a financier of activities and has since become an executor. On the other hand, many of the funds that began as implementers, such as FONAPA and FMPLPT, are taking on the role of only being funders.

Water funds allow active participation of all users within a watershed, ensuring that the economic resources invested are assigned for a common objective related to the protection of biodiversity, while also ensuring water quality, with clear and transparent processes. The fund is a facilitator that promotes the strengthening of local actors for water protection. The results of the implementation of a water fund have environmental, social and economic benefits, creating an institutional framework for decision-makers who will commit water users (both public and private) to protect the natural state of the areas where the resource is generated. In many cases, a fund has strengthened the capabilities of grassroots groups and local users to implement and manage conservation and water protection activities.

Basic Elements of a Water Fund

While there is no recipe for the development and operation of a fund, according to the cases analyzed, there are certain key elements in its structure to make it successful. The following diagram shows the general structure and elements of a water fund.

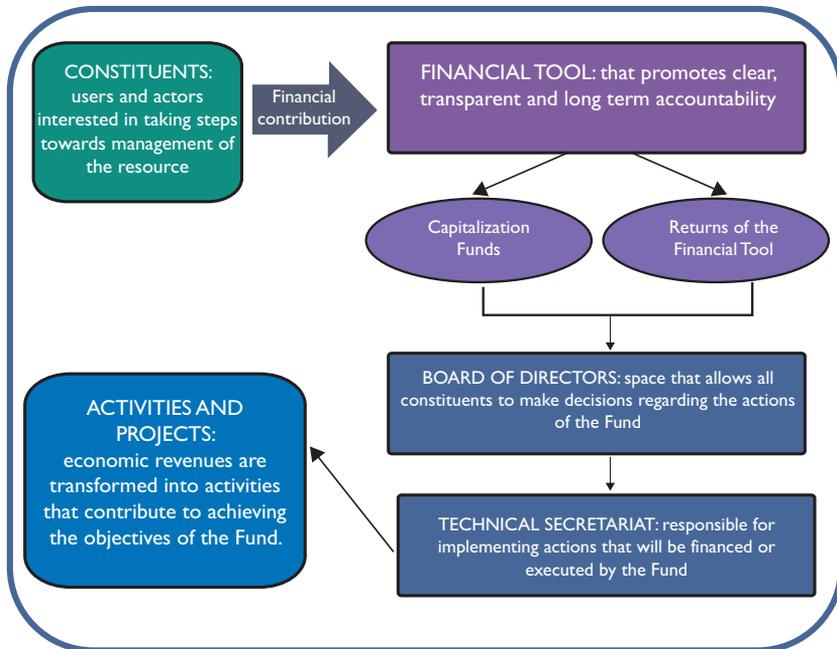


Figure N°1 General Structure of a Water Fund

1. Identified Problem with Water Ecosystem Services: A fund is a potentially important conservation tool, because of the direct relationship between biodiversity protection and watershed management. Before considering the establishment of a fund, however, stakeholders in a watershed should be clear on the problem that they want to address in the area where the mechanism will be implemented. Users rarely know about the importance of protecting water sources and a fund can serve as the link to strengthen this relationship. A fundamental first step for the creation of a water fund is to analyze the ecosystem services that would be protected. This analysis can serve as the basis for the location of activities and the specific needs of action in the area of intervention of the fund. Among the objectives that have been identified by existing funds are: the regulation of the hydrological cycle, sedimentation control, water quality and quantity of water, among others. Having a clear goal for a fund allows the identification of needs from the beginning and facilitates the prioritization of intervention areas.

2. Parties Interested in Becoming Part of the Fund: One of the most important characteristics of funds is the ability for users and other stakeholders to work towards a common goal. It is necessary that more than one actor be involved, and it is best if they are largest water users. In general, it is recommended that both public and private users participate, as well as other actors associated with the management of the resource, such as the conservation sector. NGOs have actively participated and have generally supported the initial processes of negotiation.

In addition, international donors can play a leading role in supporting the early stages and implementation of activities that would complement the actions of the fund. In some cases, these organizations are constituents of the fund, while other actors can assume roles as strategic partners for the implementation of activities.

The main idea is to consolidate a platform with multiple actors that can help promote a more active and inclusive participation in the management of water resources and that facilitate that the different interests of the constituents result in concrete conservation actions that will be financed through the fund.

3. Financial Tool: One of the key elements is how financial resources are managed to achieve the objectives of the fund. The approach should promote clear, transparent and provide for long-term accountability. The most widely used mechanism in Ecuador, and in other countries, has been the commercial trust⁵, or endowment fund, since it provides security and complies with the conditions required for the fund. In addition, there are other alternatives, such as an NGO, corporation, bank account, and administration by an environmental fund, among others.

4. Financial Resources of the Fund: The financial resources of a fund can be used two ways: capital assets, which are funds that are allowed to accumulate over time and generate economic returns; and revolving assets, which are funds used for specific actions, with

⁵A trust or endowment is that act of confidence in virtue of which a natural or legal person delivers to another one or more specific goods, transferring him or not the ownership thereof so that this complies with a specific purpose, whether for the benefit of the constituent or of a third party (Arias 2006)



money spent and collected typically in the same year. Each fund must establish the appropriate percentage that it dedicates to each type of asset, according to the needs and strategies established.

5. Board of Directors: Is the space that allows all constituents to contribute to decisions regarding the actions of the fund. Board meetings involve the approval of work plans submitted by the Technical Secretariat, based on the different needs of users. This is where decisions are taken and consensus is reached on the activities to be executed.

6. Technical Secretariat: It is the entity or institution in charge of executing or making operational the actions that the fund will finance or implement. The Technical Secretariat has a legal representative who will be responsible for the actions that the water fund will implement. The Technical Secretary presents work plans and reports to the Board of Directors. The Technical Secretariat has autonomy and only serves the purpose for which the fund was created.

7. Programs and Projects: A fund can finance and implement activities using revenue generated from a variety of sources, including: interest from its capital assets, contributions from constituents, and special external contributions, such as from international donors. There is also the possibility that the fund only generates income and other institutions are responsible for the execution and implementation of activities. In which case, the fund may provide technical assistance, as well as monitor and follow up on the implementation of activities.

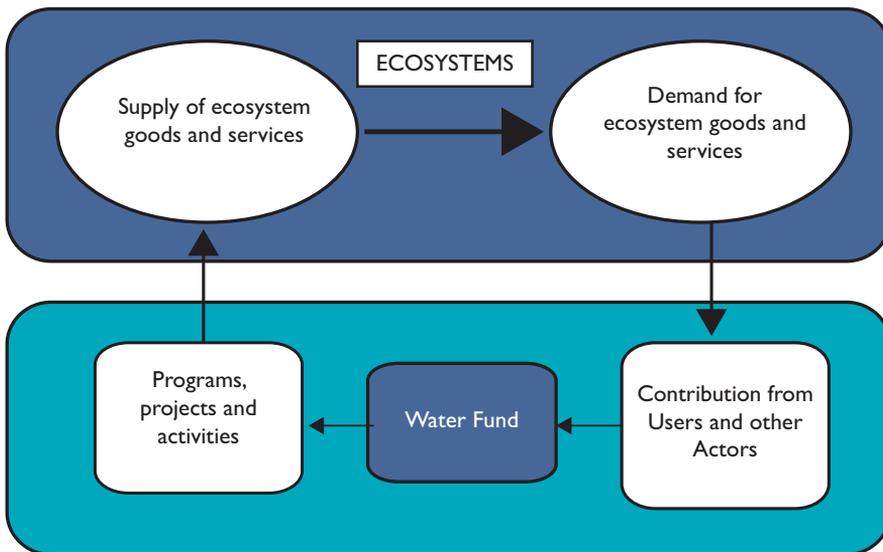


Figure No. 2 Basic elements of a Water Fund

Phases to Implement a Water Fund

Based on the Ecuador experience, three phases have been identified to develop a water fund: negotiation, foundation, and implementation. As described below, each one has its own characteristics and timing.

1. Negotiation. The negotiation phase aims at committing water users to conserve the resource and to promise consistent contributions that permits the foundation of the fund. This phase requires the political will of different actors in the area. It also includes the preparation of

preliminary technical studies, which describe the status of the resource and its needs. In addition, this information can serve as a baseline for future monitoring actions that will help evaluate the impact of the fund.

At this stage, it is important to have an institution, such as a local NGO, to provide initial financing as well as technical and political support, unless the potential constituents of a fund are able to finance them. This stage may last about two years (based on the cases in Ecuador). Although it may seem overly long, it is useful to consider that a fund may last a long time (80 years in the case of Ecuador), so it is useful to take the necessary time. This is a fundamental phase, since it helps establish the rules for how the fund will operate and how resources will be managed and spent.

2. Foundation. The foundation phase assumes that the various stakeholders who will participate as constituents of the fund have already reached agreement and have chosen a financial instrument for the fund (e.g., commercial trust). This phase is important, since it legally creates the management structure for the fund, and reflects the rules of the game agreed upon in the previous phase. This phase regulates how the fund will work and how actions will be executed. The duration of this phase will depend on how solid the previous one is. The major agreements and approaches will take place during the negotiation phase, therefore if this phase is strong, the foundation phase will consolidate shortly.

3. Implementation. The implementation phase promotes and executes activities that contribute to solving the problem for which the fund was created. The programs and projects are framed under the particular characteristics of each fund and the duration will depend on the strategic plans and its founding contract. As mentioned above, there can be three types of implementation schemes: that the fund finance and carry out activities, that the fund be only financier, or the fund be only implementer of activities.





CHAPTER III

NEGOTIATION PHASE

The negotiation or preliminary phase in developing a water fund is considered one of the most important. This phase begins the process of defining the rules and norms for the fund, identify the goals of the fund, and determining the types of activities that the fund will finance for many years to come. In Ecuador, it was found essential to have local political support to be able to move forward this type of initiative. Likewise, it is not possible to carry out this process without the technical leadership of an institution or person, which objectively supports the establishment of a fund.

A water fund creates a platform where actors from different sectors, public and private, come together for the same purpose: respond to the possible threat to such an important resource—water—by defining the solution to what underlies the threat. A fund could constitute an adaptation measure to the potential effects of climate change since it is a tool that can finance long-term actions at the local level and reduce the vulnerability towards water resources.

Analysis and Feasibility Criteria

It is important that different analyses are carried out before getting involved in the creation of a water fund and that its feasibility be evaluated to determine if this financial mechanism is the best tool for the selected area or not. A good starting point for analyzing a fund's feasibility is the response to three key questions regarding the basic elements of the fund's structure and its potential scope. The answers will also help define the types of activities to be implemented in the future.

a) What is expected to be achieved with the fund?

The starting point should determine if there is a sense that there is a problem with the provision or maintenance of an ecosystem service, such as water scarcity or access. The identification of one or various strategic ecosystem services constitutes one of the first steps to determine the viability of the financial mechanism. If ecosystem services are not threatened, then it is likely not necessary to establish a water fund.

b) Who are the interested parties?

The main users of the resource must be identified to determine their interest and commitment to participate in a financial mechanism. Other actors, such as universities and research centers, should also be considered—despite not being large water users, such actors can play a vital role as partners. If there is interest but not a long-term commitment, then the fund is not viable.

c) What is the geographical scope for the fund?

The scope will depend on the area of influence where the ecosystem services are provided or maintained, which is the subject matter of the water fund. It is important that there is a relationship between the ecosystems and the users of the service. This question is closely linked to the previous one, since defining the geographical area will allow identifying the actors.

Once these questions are answered, it is important to consider the following basic criteria that should be taken into account before formal negotiations begin. This analysis can be led by one of the parties interested in creating the fund or by a technical “promoter” in the area that supports the initiative. In practice, NGOs have played an important role as “promoters” at this stage, since they have financed activities and studies to determine the feasibility of the mechanism. Many of these activities have been supported by international donors such as USAID, GIZ, and Spanish Cooperation, among others.

Analysis of Stakeholders

The first step when considering the creation of a water fund is to identify the key actors and their interactions. It is essential to understand the social and political dynamics of an area. In some cases, these dynamics can create overlaps between several geographical basins, highlighting the complex interactions between the various actors and their relationship with the conservation and maintenance of the water resource.

As with other mechanism for watershed management, water funds are based on the premise that improved practices directly will benefit upstream landholder which, in turn, ensures the supply of environmental services overall. A water fund seeks to influence and invest in actions in the upper watershed, so that environmental services continue for downstream users (Asquith et al 2008).

Stakeholders can assume different roles within the financial mechanism without modifying the initial idea of the fund creating a link between users and providers of ecosystem services. The following chart shows the direct relationship between constituents and

Negotiation Phase Requires Political Support

In the Carchi province (North of Ecuador), in the buffer zone of the Natural Reserve of El Angel, there has been interest for several years to create a Water Fund. The negotiation process has been led by the Randi-Randi Corporation, which has implemented various projects in the area related to water management, especially irrigation.

Multiple users, such as water boards, municipalities, small and medium-sized entrepreneurs, are found in this area and have seen the need to create an entity engaged in the protection of their water sources, to assure water quantity and quality. Randi-Randi Corporation, with USAID's support, conducted a feasibility analysis and organized meetings for the creation of the Water Fund, as well as a feasibility analysis. During this process, it was evident local organizations were interested, but agreements with political actors are still underway. Having a technical promoter that supports the creation of the Fund, as done by Randi-Randi, is important for the development of a Fund; however, the political support is essential in order to continue onto the next phase.

beneficiaries that is intended with the consolidation of the fund, that is, between users and providers of ecosystem services. In addition, there are other roles that strengthen this relationship, for example the participation of a promoter, research centers, donors and other actors. The relations in dotted lines are not mandatory for the existence of the fund, but can strengthen the mechanism.

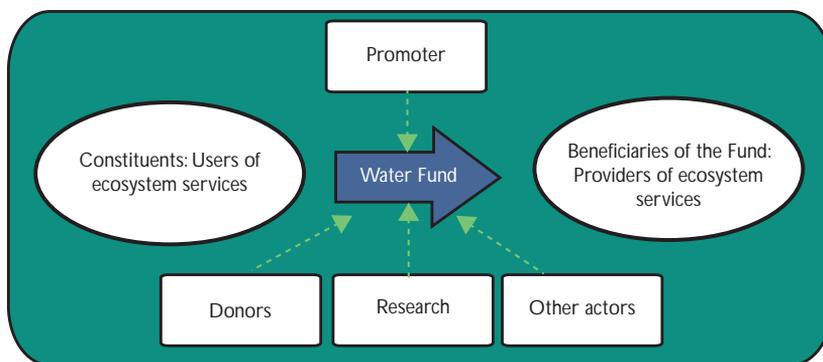


Figure No. 3 Relationship between Actors in a Water Fund (Source: Calvache et al 2012)

The main roles assumed by the actors are described below:

Constituents: All the actors benefiting to some extent by the ecosystem service. Among the principal are water companies, hydroelectric power companies, irrigation organizations, private sector, among others. These actors are the basis of the mechanism and its major contributors. In practice, it deems necessary that the constituents be the largest users of water resources.

Beneficiaries/Supplier: The persons and groups usually found in the upper watersheds that are directly related to the ecosystem sources. The main beneficiaries are the local communities located in the areas where resources are generated.

Promoters: The role of the promoter is to facilitate and accompany the processes of negotiation and foundation, as well as to make viable the first strategies of the fund. This can be a person or an institution that promotes the mechanism between users and actors, in addition to facilitating dialogue and research activities.

Research: Research centers and universities generate valuable information that can strengthen and validate the user-supplier relationship; in addition to supporting the direction of activities to be implemented by the fund. These institutions see in water funds an opportunity to develop research laboratories with new technologies, monitoring and other activities.

Donors: There are organizations and individuals who are interested in participating in the mechanism in a specific way through the funding of concrete actions, voluntary contributions, or direct grants. This role is helpful in complementing the financial resources available. A significant example has been the one assumed by the international cooperation, which has seen the fund as an important instrument to channel resources for conservation purposes.

Other Stakeholders: There are other actors that boost relations in the basin and in some cases have an enormous influence making it necessary that they actively participate from the beginning in the mechanism, such as the environmental or water authority and local governments.

Roles are not exclusive—certain actors have played more than one role within a fund, for example some NGOs that were promoters in the initial phase, later became constituents. However, it is important to clearly identify the role of each actor in the different phases of the process.



Financial Sources

A water fund is a financial mechanism that seeks the contributions of different constituents and other actors to invest in achieving a set of objectives. An analysis of the different actors will help provide a clear idea of the potential contributors to the fund. Additionally, it is useful to analyze the likely amounts of financing, to see if it is possible to generate sufficient revenues for an operational fund.

Initially, most of the funds in Ecuador put contributions into the fund's capital assets, and only used revenues generated from these assets for the implementation of activities. The issue with this approach has been that since funds generally start small, there initially has been little money for activities. Since there is a need to demonstrate early on that the fund is having an impact, sometimes part of the capital is used to implement activities from the beginning and not just the financial revenues. This choice can have positive and negative consequences. It is important to develop scenarios to have clarity on what the investment options and implementation of actions would be.

Goldman et al (2010) note that there are several funding sources that a water fund can access, such as public and private institutions, citizens, donations, and international cooperation, among others. The following are considerations for each of the funding sources is explained in Table 2.

In some cases, it will be possible to have an idea of the potential contributions from constituents, which will allow making projections of the financial resources for the fund. A worksheet for this purpose has been designed⁶ and is available at ProAcqua's web page (which will be explained later). These results can determine that, especially in the first years, the availability of resources for implementation could be limited. In such a case, it would be difficult to establish a Technical Secretariat for the fund, as well as to finance significant activities during this period.

⁶Developed by Ecodecisión

Table No. 2 Funding Sources

Funding Sources	Considerations
<p>Public Entities: water companies, electricity companies, among others</p>	<ul style="list-style-type: none"> • Usually are large users of the resource and their participation in the fund is important. • The contribution may be done through a payment agreement and it should be periodic. • In some cases the contribution of a public entity may require a change in legislation to support this payment (via ordinance). • Companies represent a majority number of individual users, so it is recommended that the public in general is aware of the contribution made by the company for the operation of the fund. • It is necessary that appropriate mechanisms are in place for the collection of payments, for example if there is no payment for water services, it will be difficult to establish payment culture for ecosystem services.
<p>Private Entities: water bottling companies, flower companies</p>	<ul style="list-style-type: none"> • The contribution can be channeled through an agreement. • It is important to have periodic contributions. • The fund can be a good strategy for channeling their corporate social responsibility projects.
<p>Citizens: voluntary contributions</p>	<ul style="list-style-type: none"> • It is necessary that there be a collection system for such contributions and that it is accessible to the population in general. • With voluntary contributions it is difficult to create projections of the potential revenues generated.
<p>Donations: NGOs, international cooperation</p>	<ul style="list-style-type: none"> • NGOs and international cooperation have supported water funds with implementation and research activities. • Donors can set certain limitations to the use of their resources, such as geographical area or thematic implementation of activities.

Source: Adapted from Goldman et al (2010)

Having this information at this stage of negotiation is essential to show with concrete figures that even if there is interest from various users, the contributions may not be sufficient to establish the fund. It also guides appropriate decisions based on different scenarios of using resources from contributions either for the capitalization or for the implementation of activities.

Financing from an external “promoter”, such as a donor, is potentially very important when initiating these processes. The support of a donor or an NGO could help finance feasibility studies or carry out habitat or water resources analyses, which are important when proposing the mechanism to potential constituents.

Geographic Scope of the Fund

When referring to a watershed conservation mechanism, it would be logical to assume that the unit or territorial scope would be a river basin; however, in practice this has not always been the case. Instead, the area of influence of a fund may include one or more river basins, or even be designed to follow local administrative units, without affecting the structure of the fund.

The area of influence of the fund will have direct relationship on the ecosystem services that would to be preserved, as well as with the location of the main users. Therefore, having information about the ecosystem services, water supply, conflicts, and threats are critical for identifying the ideal locations for the fund’s intervention. (Calvache et al, 2012)

When the ideas for a fund are first outlined, there is often hardly any quantitative and qualitative information on the resource and its sources. However, it is essential to obtain this basic information, to integrate scientific and local knowledge on the status of the services and their spatial scale, and to determine the geographic scope of the fund. In short, the area of action varies depending on each fund. However, consistent across funds is the close relationship between ecosystems, the provision of services and the users who benefits from them. Available tools for spatial analysis are detailed in the next phase when analyzing the necessary aspects to structure and consolidate a water fund.



The Negotiation

Once the minimum conditions for a fund are met and the pre-feasibility has been carried out, it is essential to begin generating technical information that supports the actions of the leaders (technical and political). The necessary information will depend on the characteristics of the place where the fund will be implemented. In some cases, a variety of baseline information needs to be gathered, such as land use and vegetation maps, water balances, characterization of ecosystem services, land tenure, water systems, (users, losses, payments, subsidies, analysis of costs), among others. This baseline information will serve to identify key users and stakeholders in the area of intervention and will additionally serve as a starting point to monitor the progress of activities that the fund will subsequently undertake.

Once the actors are identified and baseline information is developed, it will be fundamental to initiate a conversation with potential contributors to the fund. As previously mentioned, it is essential to include the major users of the resource, which typically include public and private actors for whom water is a basic factor for their production or work.

A mechanism that has several actors will provide many advantages. It is for example, better able to avoid high costs for water treatment or



infrastructure, a broader base for increasing financial resources can better create financial stability in the long term to support conservation efforts (Goldman, et al 2010).

This lobbying process and the search for potential constituents typically takes one or two years, though as seen in the case for some of the funds in Ecuador, the creation can take more than five years. During this negotiation phase, which involves the different constituents, it is important to have clarity on some aspects, such as defining permanent contributions, the potential constituents, the management model of the fund, and the decision-making process, among others. It is essential that there is a commitment from potential members to the permanent collection mechanisms and the long-term financial contributions that will allow actions to ensure water resources.

This phase establishes the game rules on how the fund will operate, the contributions that will be made (by defining how much, when and how often), the commitments of each party, and the common objectives. The major elements to consider include:

Legal Status for the Water Fund: The fund must have a legal document that regulates its operation. This document sets out the guidelines that will govern the existence of the fund. In some cases in Ecuador, this has been done through a Municipal Ordinance and the development of a trust. Both documents strengthen the legal existence of the Fund.

Administrative Operation of the Fund: A Board of Directors could be composed of representatives of the constituent organizations who will vote on the guidelines and decisions of the fund. Additionally, a Technical Committee can be established, which has the function of supporting the Board of Directors, where delegates from each institution will participate and will be critical to inform and advise the representatives to the Directory for sound decision-making. However, the Technical Committee structure can be operationally complex, and so in many cases only the Board of Directors has been used. It is also important that other key players are included on the Board, for example, representatives of environmental authorities, who could participate given the close relation with the ecosystems to be protected. In addition, a mechanism of the “empty chair” could be implemented, allowing the participation of other key users or other actors, who may not be constituents but are important for the management of the resource.

Addition of New Constituents to the Fund:

Water funds bring together several water users for improved management of the resource; however, not all users participate in a fund from the beginning so it is important to have processes in place early on, to allow additional actors to become part of the fund over time. Experience has demonstrated that it is necessary that the fund allows incorporation of new constituents during any time and that participation in the decision making process be equitable to all members. A greater number of stakeholders involved bring a wider variety of interests in the actions and activities

Political Leadership is Key

The negotiating process for the creation of the Tungurahua Water Fund took place with a variety of different actors with different objectives. The critical factor in Tungurahua was the willingness of the Prefect of the province, to take ownership of the socialization of the Fund protect of high Andean grasslands (paramos) and bring together all the different actors. In this Fund, indigenous groups have a very active participation. During the negotiation phase, contributions from these indigenous groups were vital for accepting long-term proposals for the Fund.

It was very important, for the consolidation of the Fund to have the unconditional support of a political authority, as well as the indigenous groups.



in which the fund will be involved and will also allow diversifying the sources of funding. It is important to consider that these new actors can be both public and private.

Constant Financial Flow–Financial Analysis: One of the keys to the operation of the fund is the existence of constant financial flows that guarantee the commitments acquired by each constituent. From the beginning these commitments should be clear and the collection and contribution mechanisms to the fund should be established.

As this stage progresses, the financial analysis carried out during the feasibility process can be complemented, replacing assumptions with the actual commitments made by the different constituents. There are several financing options, both for capitalization and for implementation of activities, but according to USAID's (2011) sustainability study, it is essential to establish a culture from the beginning that users pay at least a minimum amount to participate.

During this phase, dissemination of results of the financial analysis for the mechanism should be done and also the possible scenarios for the structure of the fund and its operation should be studied. The dissemination of the results will demonstrate the importance of having periodical contributions and any other possible sources of funding, which can be key information to formalize the commitments of various stakeholders. It also lays out the available resources for activities depending on how much will be allocated to implementation and how much for capitalization. This is fundamental if it is expected that activities will be implemented only with revenues. This revenue based approach can mean that many years may have to go by before



these can be executed; this, in turn, may undermine credibility for the fund and could risk its functioning—and even its disappearance, due to a lack of action. It is important that potential constituents take this information into account when getting involved in the fund. In practice, it's important to demonstrate tangible activities to users and beneficiaries from the beginning.

In addition, it is important to analyze how to involve the private sector from the start. This information should be generated when mapping stakeholders. There are many private companies that could be interested in contributing to environmental activities or perhaps contributing to the capital fund itself. However, the ideal is to create awareness that contributions should be constant and demonstrate the benefits generated; for most businesses, a reliable water supply is more than a corporate social responsibility. In the majority of sites, there are private users in the agricultural or industrial sector, which should be taken into account when creating the fund. For example, if there is a group of farmers in the area that need the resource for the production and processing of their product, they should be invited to be a contributor. The agricultural sector, as a primary user of water, needs to ensure that the quantity and quality of water is permanent for their production. Their contributions can be individual, through a percentage of their sales, or through their associations. However it is done, the fund should consider having these types of contributions.

Financial Contributions from Other Actors (Non-Constituents): The fund has proven to be effective to leverage resources from other institutions as well as volunteer contributions. The fund must have a process for the collection of voluntary contributions of other actors (donors, users, private sector, international cooperation, etc.). These contributions could be made for one time only.

Coffee Growers Committed to Conservation

In the area of influence of the Commonwealth of the Upper Basin of the Catamayo–Chira River (South of Ecuador), there are organized coffee growers. Taking into account that this group is interested in the constant provision of this resource for their productivity and, on the other hand, are an important economic sector in the area, they were considered as potential strategic partners for the local water fund.

Therefore, one of the coffee associations of the area, PROCAFEQ, decided to provide an initial contribution from its annual sales so that small producers are beneficiaries of training and equipment. Additionally, the coffee growers committed in making direct contributions to the Fund in order to enter as constituents.

This is one of the ways in which the productive sector can be an ally in the conservation and management of the watershed.

Investment Scheme for the Fund: This refers to the percentage of resources allocated for capitalization versus implementation of activities that contribute to achieving the objectives of the fund. In some cases, 100% of the contribution is destined exclusively for the capitalization and financial yields are expected only for the implementation of activities. In other cases, since it is the most difficult to initiate activities in the first years of the fund, some have chosen to allocate a percentage for the implementation of activities and the difference for capitalization. It is important from the beginning to show tangible activities to users and beneficiaries to validate the importance of this mechanism. Otherwise, it will be necessary to find additional resources to finance specific activities and capitalization will serve as a fund to leverage resources.

The relationship between the percentage of capitalization and the earmarked for activities has varied between 30 - 70 percent and 40 - 60 percent depending on the case. It will depend on the situation of each fund how to establish these agreements between potential constituents.

The Structure for Decision-Making: It is necessary to establish a decision-making system where the interests of all users are considered

and be translated into actions for watershed management. When approaching potential contributors, it is important to have basic agreements developed on how decisions will be made in the fund so that players feel duly represented when being part of this initiative. In order to have an adequate organizational structure of the fund, it is key to have a governance mechanism in place that allows participation, inclusion, equity, efficiency, transparency, and consensus for strategic decisions to take place.

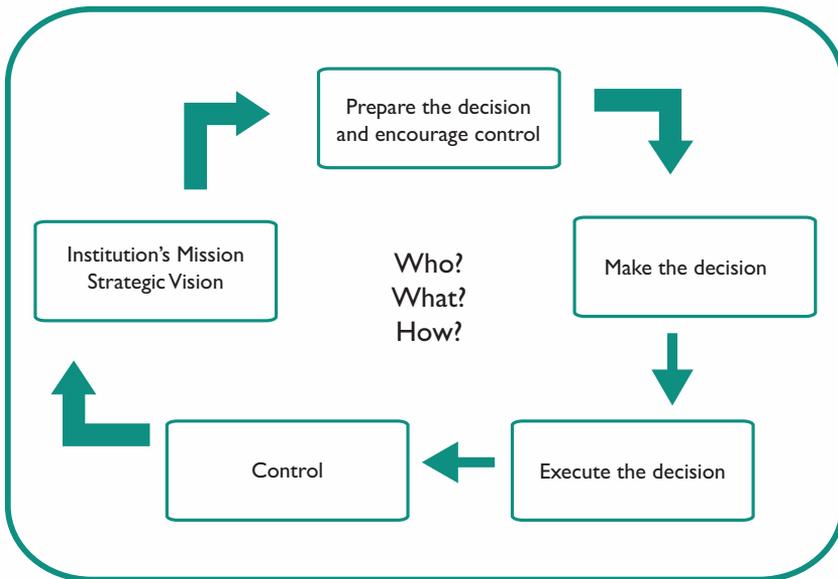


Figure No. 4 Decision-Making Structure, Source: GIZ, FIDA, CERISE, 2007

The governance mechanism should really target beneficiaries with the objective of achieving successful results of the proposed interventions. The effectiveness of decisions will depend largely on whom the actors are, their capabilities, and the available resources. In the end, the decision making process will only be the first step—subsequently the most important will be to make those decision into actions—the implementation.

In order for the decision making process to be optimal, it is necessary to have reliable and up-to-date information. Information can enable



control and evaluation of actions and verify if decisions taken are fully executed. Decisions translate the strategic orientations into specific activities. Similarly, it is important to differentiate between the types of decisions that will be taken (strategic, operational, or management) and what would be the appropriate process for each. It is fundamental to establish a consensus decision-making process to the extent possible. The governance of the fund will be most successful if all users feel they are represented and empowered because their point of view and needs are included in decisions. From experience, some funds have established decision making in relation to the amount of contributions, however in other cases, decisions are reached by consensus regardless of how much is provided by each constituent. In any case, to think about different scenarios from the beginning is important, so there is clarity about the direction of the fund. Not having clarity might endanger decisions of the fund in the future and the relationships among their constituents, since a fund aims at being a participatory and equitable mechanism.

Management Model of the Fund: Before beginning conversations with potential constituents, both the technical and political leaders should be clear about the operational method of the fund. At this stage, it is necessary to have at least a notion of how the fund will achieve its

objectives. Based on experiences in Ecuador, three possible types of implementation mechanisms have been identified:

- **Executor or Implementer:** the fund, through its technical secretariat, is directly responsible for the implementation of activities and projects.
- **Financer:** the technical secretariat is in charge of selecting and monitoring the implementation of actions and projects that are carried out by others.
- **Mixed:** the technical secretariat, in addition to executing actions and projects, funds activities and projects that will be implemented by other actors or institutions.

The amount of resources needed to make the fund operational will depend on the type of implementation chosen. However, in all cases, a Technical Secretariat should be created as an operating body of the fund that is comprised of the necessary personnel to implement management models. These management models will be discussed in more detail in the following chapters.

Accountability: The accountability mechanism, aimed at constituents and beneficiaries, should be considered and agreed upon initially. One of the advantages of setting up a fund is that it generates confidence and credibility, since by nature it does not allow for resources to be destined for purposes other than those for which it was created. For example, FONAG carries out an annual accountability event for constituents and the general public, detailing how much has been invested in each action, results achieved, and any problems encountered.

In summary, it is recommended that the above mentioned elements are clearly laid out and discussed at the beginning. This will, in the end, contribute to the sustainability of the fund in its financing, operations and governance. Not considering all these factors from the negotiation has generated a number of problems in the operation of a fund.

Once all these elements are clearly delineated, it is fundamental that these be documented. These will serve as a basis for the preparation of the constituent agreement of the fund—its foundation.





CHAPTER IV

FOUNDATION PHASE

The foundation phase can be described as the process of formalizing and legalizing the results of the negotiation phase. There is no clear separation between the negotiation and foundation phases; they have different processes with specific requirements. Although the two phases can be treated in parallel, it is not always the best to do so.

There are different ways to legalize a water fund. In Ecuador, for example the most commonly used approach is the commercial trust, however other forms could be considered, such as an NGO, corporation, and consortium, among others. The legal mechanism will depend on the conditions of each fund and on the agreements reached by the constituents. The most important factor is that it should be a transparent and stable mechanism that ensures long-term sustainability.

Regardless of the way in which the fund is created, there are certain minimum requirements that must be established during the initial phase to consolidate the fund's structure:

- Identify at least two users/actors committed to the creation of the fund in the long term.
- Define the rights and obligations of each actor who will be part of the fund.
- Identify the beneficiaries of the fund (linked to the geographic area of intervention).
- Meet the legal requirements for the foundation (these will depend on the figure selected).
- Define periodic capitalization system and the collection mechanisms .
- Outline the decision-making structure (between constituents and the technical secretariat).

Additionally there are elements that, even though are not mandatory, should be clarified during the negotiation phase, which in the end will facilitate the foundation phase:

- Define the type and extent of activities to be implemented (in case of deciding for an implementer fund)
- Legalize the accountability system

Funding Sources & Investment Approach

In the foundation phase, it is necessary to be clear on the funding sources and the investment approach identified for the fund. The funding sources might include:

Returns from Contributions of Constituents: The financial resources coming from constituents are capitalized, and generate returns that are used for the implementation of activities.

Contributions from Constituents: In some cases, a percentage of financial resources coming from constituents are directly destined to the implementation of activities.

Funding of Activities from Other Sources: Water funds are well known for having the capacity to leverage resources from other entities, such as the international donors or the private sector, for the implementation of their activities. This has allowed them to expand their range of activities.

Donations: Are direct contributions from other sources to the fund. Donors could become new constituents.

The investment approach refers to the way in which the financial resources will be invested and distributed, so that they respond to the agreements reached among the constituents. Whichever approach might be identified during the negotiation phase, a variety of funding sources can be used.

Financial and Legal Options–Advantages and Disadvantages

In the foundation phase, a variety of financial and legal options can be analyzed regarding how to institutionalize a water fund. For example it could be done through a bank account or an NGO. However, according to the experiences in Ecuador, it is clear that these are not the best options, since they may put at risk the sustainability of the fund. Advantages and disadvantages of choosing any of the existing options for the operation of the fund are detailed in Table 3.

Table N° 3: Advantages and disadvantages of the approaches used to manage financial resources

Type	Advantages	Disadvantages
Trust – Endowment Fund	<ul style="list-style-type: none"> • Legal Status. • Transparency and Security: Frequent information, management of resources according to instructions. • Independence: Commercial, accounting and legal separation. • Irrevocable: Fulfillment of purpose. • Can't be Delegated: Due to being commissioned by trust, the responsibility of the fiduciary can't be delegated. • Non-Attachable: Protection of cautionary measures of creditors that affect the constituent and the trustee. • Solemnity: The contract should take place by means of public deed. • Leverage of funds. 	<ul style="list-style-type: none"> • Costs: High transaction costs. • Control: A frequent monitoring of investments of the trust is needed. • Difficulty in hiring staff due to compliance with labor laws (Ecuadorian case).
Bank Account	<ul style="list-style-type: none"> • Ease in the handling of transactions. • Low transaction costs. 	<ul style="list-style-type: none"> • The fund has no official status or legal independence. • There is no legal guarantee that the funds will be allocated for established goal. • Fixed return. Does not depend on investments made. • There is no deed that legalizes the contract. • Ease of dissolution.

Type	Advantages	Disadvantages
Creation of an NGO or other institution	<ul style="list-style-type: none"> • Legal status for the administration of funds and the implementation of activities. • Ease of project implementation. 	<ul style="list-style-type: none"> • High transaction costs. • In some cases may require an adjustment to the legal framework. • Not a financial mechanism, therefore does not generate interest.
Sub-account within other trust or other institution	<ul style="list-style-type: none"> • Ease of project implementation. • It can be supported by the experience of institutions where the fund is functioning. 	<ul style="list-style-type: none"> • Does not have legal recognition. • Intermediate transaction costs. • Lack of independence (the fund may be treated as another project of the NGO or Trust). • High requirements and cost of foundation.



Trusts in Ecuador

In Ecuador, an endowment fund (trust) has been widely used and is the most appropriate legal mechanism for a water fund. In other contexts, the appropriate figures and legal mechanisms should be reviewed and analyzed if an endowment is the best suited for the water fund.

A trust is a contract by which one or more constituents transfer the ownership of one or more properties to an autonomous entity, it is administered by a trustee, and it meets the purposes of the fund. The trust has the ability to acquire rights and contract obligations (Arias 2006).

Trusts are comprised of constituents, a trustee and beneficiary, as described below. Additional details can be found in the Stock Market Law of 1999⁷.

- The **Constituents** are the individuals or institutions (private, public or mixed; domestic or foreign) that create the trust and are responsible for establishing objectives to be accomplished by the trust. In the case of water funds, these are the users or actors who have committed to the creation of the conservation mechanism.
- The **Trustee** is the public or private company that administers the trust, in accordance with the instructions established by the constituents. The trustee is the legal representative of the trust and must comply with the instructions established by the constituents.
- The **Beneficiary** is a person or group of persons that receives the benefits of the trust. Anyone can be a beneficiary of a trust. The only one who may not be a beneficiary is the trustee. The law also enables as beneficiary a person that does not exist yet, but that may potentially exist in the future. In the case of a conservation trust, the beneficiary can be the natural resources, thus being the purpose for which it is created.

⁷<http://www.bolsadequito.info/normativa/normativa-del-mercado-de-valores/ley-de-mercado-de-valores/>

The steps to constitute a trust are:

1. Users' will to create a trust for the water fund;
2. Identify the assets and rights that will be transferred to the trust to accomplish the purposes of the fund;
3. Identify one or more beneficiaries;
4. Identify the Trustee for the administration of the fund;
5. Prepare a contract to establish the trust;
6. Publicly announce and officially register the contract;
7. Signature of the contract by all constituents; and
8. Register the contract in the Real-Estate Record Office, in case it affects property.

The importance of the Constitution Contract

The fund for the Protection of the Paute Basin (FONAPA) was created by a trust agreement which established, among other things, the functioning of the Technical Secretariat. After the first year of activity, the Technical Secretariat proved that certain processes established in the trust agreement hindered its operation.

After a process of analysis between constituents and the Technical Secretariat, it was decided to make adjustments to the contract of the trust. The process of modification of the contract involved a rethinking of commitments, and procedures to achieve them.

The fund must be flexible enough to allow adjustments according to the needs of constituents. However, it is important that all aspects be previously discussed to duly incorporate them in the foundation document, and thus avoid future modifications that could take considerable time.

A trust is the legal foundation of a fund. As such, it is important to document or legalize its existence at the local level. This can be done through a municipal ordinance; however, the key is to have an institution that will support its actions.

In the foundation phase, the trust's contract is the enabling document for the operation of the fund. It is crucial for defining the roles, contributions, structure, and scope of the fund.

The items included in the contract can vary. Below are some of the most relevant elements from water funds that operate in Ecuador. (Note that if some elements are not considered in this phase, an amendment to the contract would be required.)

1. **The Members:** are the constituents and the trustee who sign the contract. Each one of the legal representatives must present their appointment to its organization.
2. **Background:** narrative of the negotiation phase.
3. **Glossary:** describes all the terms that will be used in the contract.
4. **Description of the type of contract:** commercial trust and autonomous patrimony, or other.
5. **Transfer of domain and affidavit:** describes each one of the contributions from constituents for the establishment of the trust's patrimony.
6. **Transfer of new assets to the trust:** establishes the conditions for transferring new assets to the trust.
7. **Nature:** the trust is irrevocable in nature so it is necessary to establish the constraints for constituents or beneficiaries to change the instructions or to request the return or restitution of delivered goods.
8. **Purpose of trust:** establishes the purpose of the contract.
9. **Instructions for the Trustees:** is the guide that the trust must comply with to achieve the purpose of the fund.
10. **Investment scheme for resources for the fund:** refers to the percentage of resources allocated to capitalization versus

implementing activities that contribute to achieving the objectives of the fund.

11. **Decision-making process:** it is necessary to establish a system for decision-making, where the interests of all users are included and which result into actions for watershed management.
12. **Incorporation of new constituents to the fund:** a clear process so that other users can be incorporated in the fund over time.
13. **Board of the trust:** is the governing body of the trust. It is important to carefully think through its structure and functioning.
14. **Attributions of the Board:** describes the member of the Board's authorities, and through appropriate regulations explains and guides how it will operate.



15. **Scope of the technical secretariat:** describes the authority and responsibilities of the technical secretariat.
16. **Classification of projects:** describes the lines of action of the trust.
17. **Trustee's fees:** details the costs to be paid to the trustee for trust management.
18. **Early termination:** describes all the causes for which the contract could be terminated in advance.

In practice elements 10, 11 and 12 above have proven to be essential to ensure the sustainability of a fund. This topic will be examined in depth in Chapter 6.







CHAPTER V

IMPLEMENTATION PHASE

Once the foundation phase is completed, it is time to start the “implementation or execution phase,” where the technical lines of action that the water fund will promote begin. How these actions will be implemented depend on the provisions established in the foundation document and the type of implementation scheme chosen. Below, there are some keys aspects that need to be considered before implementing the fund’s activities.

Lines of Action and Strategic Plan

The water fund should have a clear strategy to achieve its desired goals. The fund should work with a long-term vision and its actions must meet the general objective of the fund.

A strategic plan that will guide the investments of the fund can be structured by incorporating the various studies prepared during the negotiation phase, which were the basis for the creation of the fund. This information may be used as part of the baseline to monitor actions and future impacts of the fund. There are certain elements that are key when building the strategic plan:

- Clear expected goals;
- Geographical priority intervention areas;
- Selection of activities;
- Cost–benefit analysis of activities that the fund will implement;
- Timetable and responsible persons; and
- Fund raising strategy for additional resources.

This is key information that will contribute to the monitoring and subsequent accountability and reporting processes.

Implementation of activities begins with the preparation of a work plan by the Technical Secretary. This document should establish in detail the activities that will be undertaken with the available budget in an established timeframe. The work plan must be submitted to the Board of Directors of the fund and approved on a regular basis (e.g., annually).

Types of Implementation

In practice, water funds' Technical Secretariats have assumed different forms of implementation to achieve their goals. Minimum, basic, and ideal scenarios have been identified for each type of implementation in order to better understand the needed capacity in each case.

- **Executor or implementer:** the Technical Secretariat is directly responsible for the implementation of activities and projects. For this, it requires qualified personnel in all areas in which it will intervene. The size of the secretariat will depend on the quantity and diversity of activities in which engages. The minimum recommended personnel structure to start the activities of the fund for different implementation scenarios is shown in Figure 5.

In any of the scenarios there should be technical staff that understands the water fund's area of influence and the status of water resources. In addition, it is recommendable to have a finance expert as part of the

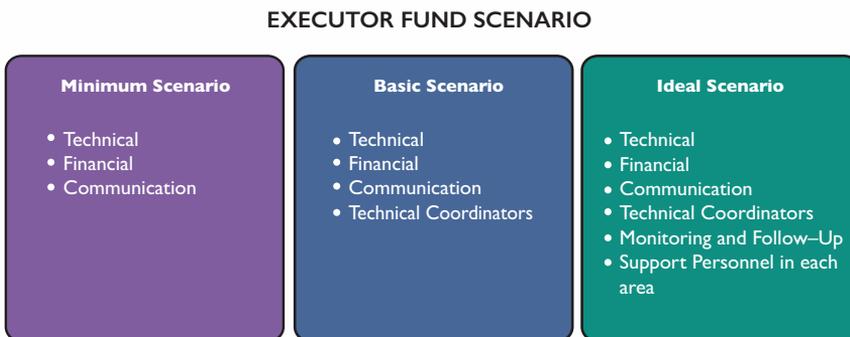


Figure N°5 Staff required for an Executor Fund

team, to manage the fund's capitalization and investment activities. In all scenarios, the existence of an outreach and communication specialist is important to keep constituents and beneficiaries informed of the progress of the fund, as well as to provide information to the general population.

- **Financer or Investor:** The Technical Secretariat is in charge of selecting and monitoring the implementation of actions and projects that are financed by the fund and carried out by other institutions. The fund functions as a resource administrator that receives technical proposals from third parties, which may include constituents of the fund. The size of the Technical Secretariat is small and is responsible for the follow-up and monitoring of activities. In this approach is necessary to establish the protocols for proposal reviews and procurement. The staff recommended to begin activities when using this approach is shown in Figure 6.

FINANCER FUND SCENARIO

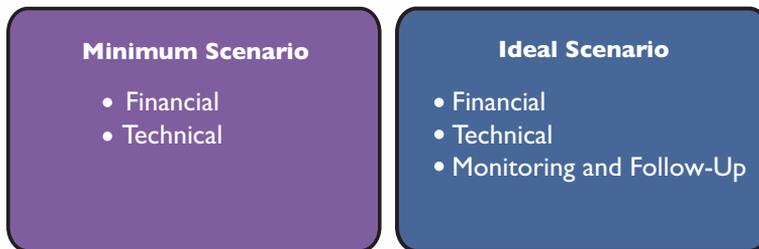


Figure N°6 Staff Required for a Financer Fund

- **Mixed:** The Technical Secretariat executes actions and projects, and finances activities implemented by other actors or institutions. Required staff includes the one needed for an implementer fund and also specific personnel for project monitoring and follow-up.

In practice, the type of implementation may be modified over time, according to the needs of the fund. There are cases where initially the fund was intended only to finance actions, but later began to execute actions directly. Whatever scenario is followed to achieve the goal it is essential to monitor activities to demonstrate results.

Minimum Technical Capacity

Whether as an investor, executor, or mixed, the water fund must necessarily have a Technical Secretary. For funds in Ecuador, the Technical Secretary has generally been an environmental manager with experience in administrating water resources, and who leads and oversees the actions of the fund. However, this is not an essential requirement, since he/she could rely on technical staff to manage these areas. The important element is that the Technical Secretary makes the appropriate links with the main actors in the watershed and can administer the fund.

It is also necessary to have a minimum operational capacity to perform actions and consolidate a technical team that can achieve the objectives of the fund and that provides support to the Technical Secretary.

The fund should always consider leveraging new resources from other sectors, as well as having marketing strategies to involve the private sector or other national and international actors who might be interested in watershed conservation issues.

General Lines of Action

As mentioned above, the water fund must have an action plan or strategy aimed at achieving planned goals. General lines of action that water funds have promoted include:

- Communication;
- Environmental education and training;
- Protected areas and vegetation recovery; and
- Monitoring and watershed management.

Communication: The communication component is one of the most important for a water fund. It is crucial from the beginning to communicate what the objective and actions promoted by the fund are, in order to involve users and beneficiaries. In Ecuador, the communication component is typically the first activity that funds

undertake. It is essential, once the geographical areas of intervention are established to carry out a baseline analysis in order to measure the impact of the fund's communication activities.

The purpose of the communication component is to establish linkages and promote dialogue with communities living in the upper watersheds, as well as in cities, where decision makers typically live. The main objective of this communication element is to disseminate and promote discussion and opinion to establish links around water, and to encourage a culture of conservation and efficient use of water. One of the key methods to achieve support from communities (both rural and urban) is through a communication program that promotes and disseminates the activities of the fund and also presents an image of the fund as a leading institution for watershed conservation. To be successful, the communication component should play a substantial role in the community involvement process, institutional strengthening, and in the fund's relation with inter-institutional actions.

Promotion and dissemination of information can be implemented through various activities, such as publications, newsletters (electronic and physical), radio spots, lectures, press conferences, meetings, and



contests, among others. It is necessary, to first identify the audiences that need to be reached, before developing communication products in order to determine appropriate strategies to communicate the fund's activities.

Environmental Education and Training: To promote a water conservation culture, especially among children, the fund should have an environmental education program. A long-term program that raises awareness among the youngest is an investment for the future. The hypothesis is that through environmental education for children and youth, a positive attitude towards the protection and conservation of water sources will be instilled at an early age.

Environmental education is a fundamental tool to achieve behavioral change and attitudes within society. Its presence in all activities will influence the relationship between society and the environment (FONAG, 2008).

An environmental education program is based on a process of recognition, understanding, and friendly actions towards its natural surroundings. This program is normally accompanied by activities that benefit not only schools, but also the entire community. The important thing is to have everyone participate—students, teachers and parents. In practice, these activities have included activities such as school farms, water and sanitation, and hand-washing campaigns, among others.

In order for an environmental education program to have a long-term impact, it is fundamental to develop strategic alliances from the beginning with the education authorities, as well as with other local actors. As with other fund activities, it is a priority to start monitoring processes to evaluate the impacts of these interventions, to better understand what is most effective.

The training program helps strengthen local technical capabilities to sustainably manage water resources. The objective is to promote dialogue and coordination of conservation activities, and in particular have watershed stakeholders identify approaches and tools that they can incorporate in their action plans.

Protected Areas and Natural Vegetation Recovery: Another important component of a water fund is to help stakeholders better understand the close relationship between their water and the natural areas that provide that water. Too rarely is this relationship evident to users. The fund should work not only in the protection of those natural areas but also in the recuperation of the vegetation cover of certain degraded areas. This work should always be done in close relationship with the environmental authority in order to achieve common objectives.

One approach is to recuperate the vegetation cover through the planting and maintenance of native species in areas of water recharge that are fragile or where degraded soils affects the water supply; with the aim of conserving soil moisture and protecting natural drainage. This should be done jointly with communities near the water sources. These activities may be complemented with environmental education and sustainable productive activities. In many cases, these activities have been promoted as a form of food security, livelihood improvement, and/or a process of creating natural and cultural conservation areas with local communities that are near water sources. Activities supported should be linked to viable markets otherwise they may well be unsustainable and fail. The starting point for these alternatives is to provide local populations with options that are in line with conservation and their socio-cultural environment that pressures on natural resources. In Ecuador, funds have supported family farms,

Two approaches to educate and raise awareness

FONAG has implemented two strategies to promote change in how children view water resources. The awareness program is focused on elementary school children in the urban area. Children visit the Cachaco Park for approximately four hours. During this visit, they learn about the environment, and in particular, water resources.

The Mobile Environmental Education Program performs a monthly visit, with groups of children from several rural schools during the nine months of the school year. These schools are located in buffer zones of protected areas. In both programs, each child becomes an ally in the protection of water resources—a “Water Guardian” who will help promote positive actions at home to conserve water.

breeding of small animals, pasture management, dairy, handicrafts, and ecotourism, among others.

Another important line of action is to support the environment authority and the overall strengthening of the management capacity of a natural area. In some cases, water funds contribute to the protection of natural areas with community park guards that provide control, surveillance, and monitoring. It is also important to provide the appropriate equipment and training to park guards. The importance of working with community park guards goes beyond the monitoring and control of the area. By being active members of a community close to the protected area, these rangers are the link between the community and the natural habitats. This close relationship allows the community to be involved in the surveillance and care of natural resources.

Monitoring and Water Management: Water funds should implement at least some basic monitoring and follow-up of activities from the start. Evaluation and monitoring should be a continuous and systematic process. The complexity of the monitoring system will depend on the established targets and the activities carried out.

In practice, it is expected that the monitoring and evaluation contribute to institutional learning. A good monitoring program should:

- Be useful to users committed to the fund;
- Be viable and executable;
- Count with baselines;
- Respect the values of the people involved;
- Be carried out through proper procedures; and
- Provide reliable, systematic, and accessible information to all users of the fund.

Monitoring should be seen as a tool that contributes to decision-making—through a constant flow of information and continuous learning—and that increases accountability for constituents or donors to achieve the fund's goals.

The monitoring requirements will differ, depending on the type of fund. In the case of Implementing Funds, the monitoring and follow-up of



actions must be considered from the beginning and be a constant exercise. In the case of Investor Funds, the monitoring system should evaluate the proposals to be financed as well as monitor and follow compliance of activities. In both cases, it is essential to have sufficient information over the long run, to be able to document the impact of actions that the fund has carried out.

Water funds need to incorporate hydrological monitoring into their activities. The goal is to be able to prove that the interventions taken to address a watershed issue have to some extent solved that problem. Water flow measurement provides information on the quantity and quality of water in each watershed. Additionally, installation of hydro-meteorological stations allows the collection of information on the status of the watershed, as well as to document the importance of actions in the areas of intervention. Finally, it is important to gather data and make it publicly available on website. The information collected in the field must be processed continuously and shared with the different authorities for decision-making.

All these actions support integrated watershed management and promote participatory platforms that can count with technical tools for sound decision making. In this sense, water funds play a leading role in relation to how management decisions are taken in a basin, turning them into key actors in the governance of the resource.

FONAG Measures its interventions

In 2008, FONAG began implementing a monitoring and evaluation system, with specific indicators for each activity, so that it could better demonstrate the progress of their programs. This system resulted in an on-line portal that displays the progress of each component and its achievements.

The size and complexity of FONAG has required a monitoring program of equal magnitude. It is necessary to stress that it was only fully developed after eight years of implementation and that the development costs were high.

Nevertheless, the system is viewed as a major achievement. With it, FONAG was able to show the results to their constituents and this has also contributed to institutional learning.







CHAPTER VI

SUSTAINABILITY OF WATER FUNDS

There is an enormous interest in projects related to water investments in Latin America; however, not all are successful. A report by Ecosystem Market Place, “Outlining the New Waters: Status of the Investments in Water Protection 2012,” points out that several programs identified in 2008 no longer existed in 2011 because they had failed to find long-term financing and identify local ownership, two factors essential for sustainability.

Water funds have proven to be an innovative and successful mechanism to achieve the objectives for which they were created. In Latin America eight funds begun since 2008, at least 12 have been created in 2012, and there is funding identified to capitalize 32 funds by 2015. (Bennett et al 2013).

As noted, there are factors that can determine the success or failure of a water fund. The experience in Ecuador has allowed identifying several criteria that impact the sustainability of funds. This criteria considers the following three questions: Who is involved in the fund? How does it work? What resources are available? Together these questions help analyze the financial and institutional status of a fund, as well as the roles of the actors involved.

Financial

A water fund is a financial mechanism so it is essential to have sufficient resources to achieve the fund’s objectives within established timeframes. Financial sustainability is the main challenge for the development of a successful water fund. Financing is only one of the financial factors. The experience in Ecuador has also identified several other factors necessary to promote sustainability, as discussed furtherly.

Financial Resources for the Implementation of Activities. To have a long-term, positive impact on the watershed, a fund should have long-term financial resources. The fund will depend on agreements reached among constituents and should be clear about how financial resources are provided to the fund, how they are apportioned between the fund's capital assets, which are invested, and the resources available for the implementation of activities.

An analysis of a fund's financial resources must be done during the negotiation phase. Constituents should consider that a greater amount of resources implies a need for a greater capacity of management from the Technical Secretariat. During the negotiation phase, contributions to the water fund and how they are distributed should be established, with an agreement that any further changes would only be done based on decision-making by all constituents.

In determining the initial distribution, it is critical to consider what activities the funds needs to implement and when. The activities have a direct impact on the sustainability of the mechanism in the short, medium, and long-term. A water fund is most vulnerable in its first few years; however visible results in the short term can help demonstrate to constituents that their money and time is being used properly. The



need to achieve quick results implies that the technical secretariat must have resources for the implementation of activities from the start, which is difficult to achieve if the fund chooses to depend exclusively on revenues generated from its capital assets for the implementation of activities because it can take some time to have the necessary financial resources. This delay can undermine support for the fund and generate uncertainty among its constituents. Initially distributing some of its capital assets to implementation can slow the growth of that capital and so all distribution decisions must balance capitalization with building public support and interest. It should also be recognized in this early development phase that distribution of financial resources may change according to the needs of the fund overtime. Define the process for deciding the proper distribution of resources is as important in the negotiation phase as determining the initial distribution.

Diversification of Financing. Ideally, the constituents of a water fund will agree to provide fixed, periodic contributions to the fund; however, some constituents may only provide a one-time contribution. Punctual or periodic, and done by different actors, such as NGOs and private companies can be useful to increase the cash flow of a water fund. The payments might be made in the form of voluntary contributions, grants for specific activities, donations to capitalize the fund (even non-constituents), among others.

To allow the inclusion of financial resources from other sources, it is necessary that the foundation document of the fund include a fundraising scheme for resources not provided by the fund's constituents. The technical secretariat should include capacity for fundraising and for the acceptance and management of contributions from external resources.

It is important to consider that financial resources from public or private sources may be impacted by different regulations. Such difference may influence the type of activities funded by different contributions or the way resources are managed. In Ecuador, for example, there is legislation which dictates that public resources can only be managed by State entities, thereby restricting the ability of a fund to use this type of resource.

The diversification of resources reduces the vulnerability of the fund, especially if these contributions are properly coordinated. Having alternatives to support a fund also helps address the objective to include the efforts of various actors, either with a punctual or long-term participation. The characteristics of a water fund can make this mechanism an ideal investment scenario for some investors. This should be taken as an advantage to help ensure the sustainability of the fund.

Long-term Financing. Despite the importance of diversifying funding sources, a constant availability of financial resources must be assured. It is ideal that a collection mechanism for contributions be established in the negotiation phase that guarantees these resources. One of the collection mechanisms used to secure cash flow from government entities has been through bilateral agreements, setting an annual fixed amount (which can be delivered monthly, quarterly or semi-annually). On several occasions these have been ensured through the creation of a municipal ordinance. An ordinance, unlike an agreement, has a longer time frame and is much more difficult to dissolve. This ensures the continuity of resources and demonstrates the long-term commitment of public authorities. In the case of private constituents, it is ideal to clarify payments prior to the foundation of the fund.

For the sustainability of a water fund, it is important to ensure compliance with agreements, commitments, ordinances or other instruments assumed by constituents that are the main source of capitalization for the fund and provide resources for the implementation of activities. Experience has shown that the continuity of resources is more important than the amount. That is, it is better to have constituent make constant (albeit small) contributions to the mechanism, than making one significant payment. All institutions should comply in a balanced manner, since disparity in contributions may reflect a disproportion in the structure of the fund and affect decision-making.

Additionally, there are other funding sources that increase the financial flow of resources and that the fund could count on at any given time, such as the private sector and international donors. Depending on



the management capacity of the Technical Secretariat, these can become an important source of financing in the long term.

Management of the Fund and Investments. One of the first tasks that constituents must accomplish is the selection of an administrator to manage the fund's financial resources. The function of an administrator is to ensure proper management of the fund's resources, both for capitalization and for the implementation of activities. The administrator must respond to the particular needs of each fund, based on the legal framework established and the documents that legalize it. There should be a legal contract with the administrator that clearly establishes the mechanism and the type of financial products in which funds will be invested. In practice, the fund must have the adequate processes in place and the administrator must rely on specialized staff to manage investments and transactions.

The selection of a good administrator is fundamental for the sustainability of the fund. In general, administrators should undertake their functions with administrative efficiency, transparency, and

technical excellence, as well as have the necessary legal status. The administrator that is best suited to each fund will depend on a thorough analysis, however certain elements should be considered so that the sustainability of the fund is not affected:

- The selection of the administrator must conform to the particular institutional conditions of each fund. This should be considered more carefully when there are public funds, since it may imply additional restrictions and management requirements.
- The transaction costs will affect the implementation budget, therefore it must be considered during the selection. Estimations of transaction costs should be realistic; underestimation of this cost is common and limits successful implementation.
- Maintain low management costs until additional resources are leveraged and the fund grows.
- The administrator must be proactive and ensure transparency in the management of resources, generating confidence among constituents.



Institutional

Transforming the idea of having a financial mechanism for conservation into an institution—the water fund—happens in the foundation phase, where the existence of the fund is legalized and clearly defined. The fund, as an institution, is based on agreements between constituents—in clear, open and easy-to-understand processes for all actors—and is consolidated with the signing of a legal document which validates the existence of the fund. The fund should be an autonomous institution that operates within its own means and achieves its own institutional and organizational identity.

Institutional Mission and Objectives. The purpose of the fund must be clear to all constituents at the outset and must be transmitted to all actors involved—directly and indirectly—with the mechanism. Constituents, particularly delegates to the Board, should understand the scope of the mechanism and this information should be clearly channeled to the technical secretariat, and, in turn, to users and beneficiaries of the fund. Commonly beneficiaries expect short-term solutions from the fund, such as water treatment or new delivery systems, which are the responsibility of other actors. It is critical to clearly establish the scope and actions of the fund to control the expectations of various stakeholders and avoid potential conflicts.

Autonomy of the Technical Secretariat. A fund is composed of different actors with defined roles: constituents, technical secretariat, advisors, donors, and promoters. It is critical that each actor has a clear role for the proper functioning and operation of the fund. In practice, this translates into an autonomous technical secretariat, which ensures that the fund's objectives are met; promoters who facilitate the processes; technical advisers who generate and provide information that may contribute to the decision-making process; and constituents that address the actions of the fund. Any conflict of interest or overlapping roles in the technical secretariat with the different actors involved must be avoided (e.g., constituents, promoters); each role should complement the effort overall not conflict with or overlap with the roles and responsibilities of the other actors.



Decision-making. The fund represents the interests of different actors, therefore decisions must respond to a set of goals. In order to avoid any appearance of partiality to any constituent or group of constituents the decision-making structure is crucial for the sustainability of the fund. If decisions depend on the percentage of contributions, there is a high risk that one high contributing constituent could make the majority of the decisions of the fund. This situation would direct and interfere with the fund's management, likely create dissension among the fund's constituents and the multi-stakeholder platform—a key aspiration of most funds—would be a mere formality.

There should be a clear and equitable platform for participation in decision-making that is reflected from the beginning of the operations of the fund. Ideally, the fund offers a space for dialogue where all users can get together, discuss the status of the watershed, and identify lines of action. Ultimately, the fund will convert this dialogue into concrete actions that respond to the objectives of the fund and not to the interests of particular constituents.

Additionally, participation in decision-making should be conditioned on compliance with agreed-upon obligations, such as contributions to the fund. It is best to restrict decision-making to those actors that have contributed financially. Those actors that have only contributed to the capitalization of the fund, but have not contributed since, should not be allowed participate as decision-makers in the fund, although it is recommended that they could have an advisory role. Additionally, there are other elements that can strengthen decision-making process, such as having technical advisors and applying the “empty chair” strategy, under which a non-constituent of the fund participates. These new actors could provide different perspectives and contribute to discussions, although not voting on decisions.

Incorporation of New Constituents. Water funds integrate the efforts of several users of the resource for its proper management. It is unlikely that all water users will participate in the fund from the beginning, so it is important to have a process in place to allow other users to be incorporated over time. In order to provide a balance to the fund's structure, both public and private actors should be allowed and encouraged to participate.

Technical Capacity. The water fund, regardless of the type of implementation chosen, will need a Technical Secretariat to manage the activities that it will implement. The Secretariat must have the technical knowledge to comply with obligations assumed and should be structured to efficiently carry out planned activities. The type of implementation that the fund foresees will determine the number of people involved and the technical skills required. The technical sustainability depends on the technical staff having the training and expertise to make viable decisions and achieve the result needed.

Public Perception and Appropriation. Communication is one of the fundamental and initial actions in which the technical secretariat should get involved. Communication activities, in addition to environmental education and awareness, must be positioned with the general public and have the empowerment of constituents.

A strong image in the minds of users and authorities ensures support and also clarifies the objectives and goals of the fund; avoiding any conflicts that may arise between the technical secretariat, the constituents, and other actors linked to the fund. It is a mistake to underestimate the relevance of communication actions, especially when actions are being implemented. A good communication strategy increases the credibility of the mechanism, facilitating that other users become interested in the fund.

To achieve a favorable public perception, the communication strategy should focus on the population in the area where the fund operates and must include beneficiaries and users of the resource. Information should be transmitted in an easy, understandable language and emphasizing the ecosystem as an integrated vision for water protection.

Coordination with Key Actors (Political, Technical, and Social Support).

The fund should relate to all users, constituents and authorities (national, regional and local) of the resource in the area of influence, in order for actions to have greatest impact. The fund is a financial mechanism, and in no way should take-on or replace the functions of other organizations. The fund's lines of action and activities must be consistent with existing public policy actions, avoid any duplication of efforts, and give priority to initiatives promoted by local authorities at all levels. Accomplishing this will establish that the fund's role is complementary to the initiatives that are underway in the territory.

Institutional Strengthening. The Technical Secretariat is in charge of implementing the fund's activities, therefore its structure and organization is vital for the success of the mechanism. The development of an effective technical secretariat is a continuous process and requires periodic institutional strengthening. These actions can be financed with donations or with the support of other institutions and even constituents. Having a solid technical secretariat guarantees better results in the implementation of activities and in reaching proposed goals.

In 2010, USAID developed the Organizational Capacity Assessment (OCA)⁸ tool, so that organizations can self-evaluate their management capacity in order to strengthen their institutional sustainability. This tool is also available at ProAcqua website (explained in chapter 8). This is one of the lines of action where external support from donors and NGOs could be channeled; however the technical secretariat must know the specific aspects that require strengthening. OCA helps identify these gaps.

Accountability

Accountability is a process that allows demonstrating achievements of the fund; this process has two key elements, transparency and measuring impact.

Transparency. Funds are a financial mechanism that must have broad public support and so it should make its investments and the activities that have been implemented with its resources public.

⁸<http://www.usaid.gov/sites/default/files/documents/1864/OCA%20Tool%20for%20USAID-Funded%20Organizations%20Facilitators%20Copy.pdf>



In the case of the financial resources, the fund must show the evolution of investment–contribution from constituents, investment revenues, and any additional resources, such as donations. In addition, the fund must show the relationship between the actions carried out and the amount spent to implement them. It is necessary to demonstrate how available resources were transformed into actions and how those actions contribute to the objectives of the fund.

Information detailing the evolution, scope and performance on activities should regularly be made available to all actors involved to provide greater credibility to the fund. For this, many of the funds in operation have included this type of information on their web sites.

Accountability with an established frequency where constituents, donors, and the public in general participate supports adaptive management and a continuous learning process where the results of the monitoring inform the subsequent actions carried out. This approach allows adjustments in the planning and implementation of future activities to be made transparently. The fund must consider that making serious and credible accountability requires significant previous work and planning.

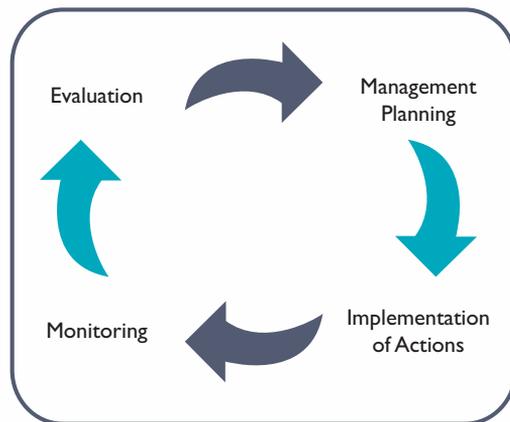


Figure No. 7 Adaptive Management Model

Measuring Impact. Measuring the impact of the fund is a second key element of accountability and allows for the effectiveness of the fund to be measured. Goldman et al (2010) point out that to monitor the impact of water funds, in addition to measuring progress to each of the objectives, it is also necessary to demonstrate how achieving this objective contributes to the effectiveness of the mechanism. The process of measuring the impact of the water fund can be represented by the



Figure N° 8 Diagram of How a Water Fund Functions (Goldman et al, 2010)

cycle in Fig. 8. The cycle starts by setting transparent goals, determining priorities to reach those goals, developing strategies for what activities need to be done, implementing those activities, and then evaluating progress toward the established goals in order to determine next steps.

In practice, to carry out impact monitoring requires having sufficient initial information (baseline)

gathered from both the site and a comparable site where the fund is not operating (control). In any case, it is important in planning to be clear how each activity planned will contribute to a specific goal and to document and measure it to be able to demonstrate the contribution to the established objective. The detail of the indicators used to measure progress will depend on each fund. Goldman et al (2010) suggests some protocols that could be applied for impact measurement on hydrology, biodiversity, and socio-economic indicators, among others; the applicability will depend on the characteristics of each one of the funds.

The process of measuring impact is relatively complex due to the amount of information and resources required for its evaluation. However, it is an essential process for decision-making, as well as for accountability.





CHAPTER VII

SUCCESS FACTORS AND LESSONS LEARNED

Successful water funds have features that stand out. In particular, they have the following characteristics:

characteristics

- Provide services not offered by other organizations (e.g., local government) to preserve water quantity, quality and access.
- Open a participatory space for technical–financial dialogue to involve diverse actors in the management and conservation of water resources.
- Ensure transparency and accountability in the management of resources and actions.
- Guarantee technical leadership and promote implementation of actions based on technical soundness.
- Create a long–term financial mechanism that supports the long–term continuity required for the implementation of actions for conservation.

From the experience in Ecuador, it can be concluded that the success factors and lessons learned in carrying out a water fund are:

Political Support

- Assure political will in the creation and implementation of a fund. This is a key factor for a fund to be sustained.
- Create formal commitments with local authorities and decision makers.
- Position the fund to involve local authorities but independently so that it can function despite the changes of authorities.
- Continue to involve actors and/or water users to ensure continued political and financial commitments.
- Continue to reach out to new and other actors to ensure inclusiveness and participation.



Solid Technical Capacity

- Generate technical information on water issues or problems to support decision-making.
- Strategically identify lines of action for the fund and present and prioritize a range of actions to tackle problems.
- Start with activities that are highly visible, involve the maximum number of actors, and are achievable to demonstrate the importance of the fund.
- Ensure that the technical secretary has the right technical training and skills to lead proposed activities effectively.



Clear Rules

- Establish clear rules for the decision-making process from the start that ensure equitable participation that is not dependent on political or financial power levels. Preferably it should be by consensus or by simple vote. Participation and decision-making should be equitable and not dependent on the size of each constituent's contribution.
- Include public and private members for balanced decision making.
- Use the empty chair approach to allow permanent participation of an outside actor to bring more objectivity to decision making.
- Establish clear rules, from the beginning, for the incorporation of new constituents, both public and private.
- Clarify that participation in the Board must be conditioned on compliance with all commitments detailed during the foundation of the fund. Create a clear legal framework to formalize the initiation as well as the dissolution of the fund.

Independent Technical Secretariat

- Create technical continuity to protect against changes in the political structure of the area.
- Ensure autonomy of the Technical Secretariat in relation to the constituents and other actors to promote equality of access and voice.
- Follow the established guidelines of the fund to promote transparency and avoid the appearance of favoritism.
- Ensure flexibility in the implementation of activities so they can adapt to local needs and realities.
- Promote a new culture for water conservation that starts with raising awareness and seeking common solutions to water issues.
- Position water resources management and monitoring as a main component to ensure success in reaching the objectives of the fund.
- Create trust with the constituency through clear, periodic and systematic processes of accountability.



Participation and Governance as Cross-cutting themes

- Encourage inclusion of all water users, from grass root organizations to representatives.
- Link ecosystem services protected by the fund to the water users to catalyze active participation.
- Involve local institutions and experts in promoting and facilitating to ensure the viability of the first actions of the fund (promoter).
- Give beneficiaries a leading role in the actions of the fund.
- Socialize water issues in the zone of influence especially with users who contribute to the fund to promote a culture of responsible use of water resources.
- Build a space for actors, users, institutions and industry to interact and learn about technical issues to inform their opinions on water issues.
- Empower active participants so that they will identify themselves and promote the goals and principles of the fund.



The Fund, an Autonomous and Long-Term Mechanism

- Have a legal mechanism that ensures the continuity of the fund. It should be legally established in a way to reduce its vulnerability.
- Is founded on a principle of adaptive management so it may adjust to changes in order to guarantee its continuity.
- Is independent of its constituents, both public and private.
- Can leverage support, financial, political, and technical, from sporadic contributors (foreign cooperation, for example) to support the long-term strategy of the fund.
- Establish a reliable source of continual funding from constituents that is backed by a legal mechanism.
- Plan sustainability from the start in its legal and financial structures. As mentioned above, having a legal instrument, as well as political support is essential for the sustainability of the fund.
- Understand the actors and their relationship to the fund. Carefully analyze the different actors, particularly their use of the resource and their potential participation in the fund.
- Contemplate all aspects in considering the fund, favoring the feasibility analyses, but looking beyond to consider the long-term viability and need for this mechanism. Define the fund's capital distribution to balance for sustainability its allocation for implementation and capitalization.







CHAPTER VIII

PROACQUA PLATFORM



In an effort to share the experience of water funds at a global scale and to guide similar initiatives at the local level, USAID developed an on-line platform **“ProAcqua”**—available at the link www.pro-acqua.net.

“ProAcqua” is a web-tool that facilitates the creation, consolidation, and development of financial mechanisms for watershed management. It is based on the elements presented in this document and has been validated through interviews, workshops, and meetings with technical staff involved in water funds in Ecuador. **“ProAcqua”** is envisioned as a dynamic portal that will be in constant evolution. It is expected that over time users will contribute to its improvement and that it will develop into a cutting edge tool to support the evolving challenge of watershed management.

“ProAcqua” has three major components: tools, documents, and results.

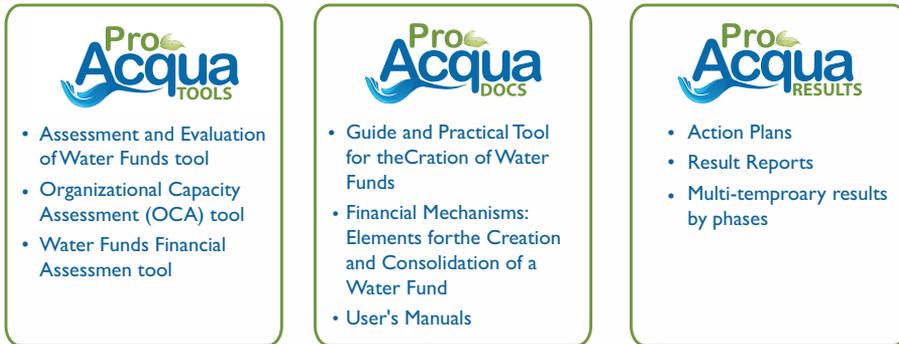


Figure No. 9 ProAcqua portal scheme

ProAcqua Tools

This component offers users practical tools that contribute relevant information for technical staff and decision makers, and adapts to their situation to support the implementation, strengthening, and assessment of financial mechanisms. A more detailed explanation of ProAcqua Tools is explained later.

ProAcqua Docs

This component collects technical publications and documents related to watershed management. ProAcqua Docs disseminates and provides an information platform to promote financial mechanisms. User manuals for each of the tools in ProAcqua are also available in this module.

ProAcqua Results

This component presents results of the tools that have been implemented. ProAcqua Results supports the comparison and multi-temporary analysis of the different results, in order to see the progress achieved. It also maintains records of all results obtained.

During this first phase, ProAcqua has been developed only in Spanish.

Practical Tool to Create and Strengthen a Water Fund

Water Funds are an attractive mechanism with high possibilities of replication in other contexts. Five funds have been established in recent years in Ecuador and there are many other initiatives being negotiated that will consolidate in the near future. However, the creation and consolidation of a Fund does not always guarantee sustainability.

Experiences in Ecuador have demonstrated that in addition to the particularities of each initiative, there are basic elements that help ensure the success of a Fund and its sustainability over time. The process of assessing Water Funds in Ecuador allowed the identification of key criteria that should be applied in each when of establishing such mechanisms.

Based on this experience, a tool that identifies, analyses, and guides each phase of Water Funds has been developed. This practical tool for creating a Water Fund is a dynamic instrument that enables: the strengthening of each phase and sustainability of a Fund; and, verifies and analyzes the essential steps that must be reinforced for a Water Fund.

This tool assesses, in each phase, the scenarios developed and the presence or absence of verifiers (indicators) based on the experience of Water Funds in Ecuador. This analysis assesses progress in each phase and, as a result, indicates its current level, considering the essential elements to advance the process. Additionally, the tool allows a sustainability analysis of a Fund to help the user confirm that all verifiers are met effectively.



Why use it?

- To diagnose, analyze and guide on the status of an initiative or a Water Fund

When should be done?

- Can be done during any stage of a Water Fund initiative
- Preferably before creating a Fund, to identify basic elements that must be considered in its design and feasibility
- During the consolidation, to consider all the elements and legalize the mechanism
- During the implementation, to guide the development of the Fund and strengthen its management
- At any time, to analyze the sustainability elements of the Fund

Who should do it?

- Any organization or person related to a Water Fund

How does it work?

ProAcqua is designed to clearly identify what steps are needed to create and consolidate a water fund. The user must choose verifiers within the specific criteria, and the system will place the user in a scenario with a final score and a recommendation.

The tool will provide a percentage of progress in the different phases (Negotiation, Foundation, Implementation or Sustainability) and an overall result. The percentages provided are the result of analyzing each of the criteria according to the priority that has been previously assigned by the system.

In the results module comparative analysis between assessments made at different times can be performed, to be able to demonstrate the progresses and/or setbacks of a water fund.

The User's manual is available on the ProAcqua web site to explain step by step how to enter the system and understand the results.

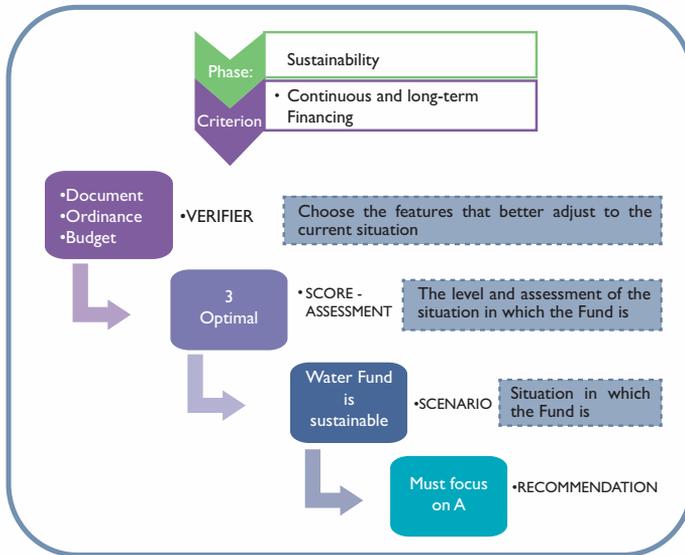


Fig. No. 10 Functioning Diagram–Water Funds' Tool

Organizational Capacity Assessment Tool–OCA

ProAcqua uses a tool for the assessment of organizational capacity, developed by USAID that is designed to measure the general institutional capacity, and specifically, the ability to manage and implement programs financed by donors. The tool evaluates the capacity in eight key areas:

- Governance
- Administration
- Human Resources management
- Financial management
- Organizational management
- Program management
- Project performance
- Leadership and team dynamics

Why use it?

- Auto-assess the organizational capacity of an institution

When should be done?

- Periodical with annual updates

Who should do it?

- Any organization or institution

How does it work?

Each key area contains subsections with more detailed explanation that takes into consideration where the organization is at the moment. For example, the section on governance is composed of vision/mission, organizational structure, composition and responsibility of the Board of Directors, legal status and succession planning. Each subsection is divided into four organizational capacity development levels at a scale from one to four, with one being the lowest capacity level and four the highest.

Each section will receive a cumulative score and a general score of organizational capacity will be calculated by adding results from all sections. This scoring method will help the organization identify key strengths and priority areas for improvement. In addition, that scoring will enable the organization to track progress in key areas and monitor the improvement of organizational capacity over time.

Recognizing that organizational development is a process, the use of the OCA tool results in concrete action plans will provide a clear development map. It is recommended that the OCA tool be repeated annually to monitor the effectiveness of prior actions, to evaluate the progress in the improvement of the capacity, and to identify new areas that need strengthening.

The tool developed in the system also allows creation of an action plan that can be built as the assessment is filled out.

The User's manual is available on the ProAcqua web site, which explains the process to enter the system and how the tool operates.



Fig. No 11 Sample Results of the OCA Tool

Water Funds Financial Assessment Tool

The Water Funds Financial Assessment Tool was developed by Ecodecisión to support local actors and decision makers when creating a water fund. This tool analyzes the amounts that different users will contribute and makes long-term projections for the investment in conservation actions. The tool identifies approximately how much will be needed to implement actions in an independent manner and how much the investment will return. This analysis is extremely useful to clearly and objectively demonstrate how much contributions from potential constituents of a fund should be in order to be sufficient to reach the necessary financial resources needed to accomplish its objectives.

Why use it?

- To analyze the investment amounts and the financial requirements of a Water Fund

When should it be used?

- Before the creation of the Water Fund

Who should do it?

- Any person or institution related to a Water Fund

How does it work?

The tool is built on assumptions that the user is responsible for entering in a financial matrix. The required fields are: fixed potential contributions from constituents, variable contributions, donations, and other income. It also includes the percentage that will be earmarked to capitalization and the percentage for the implementation of activities, if applicable.

The tool helps make medium-term projections of the financial resources that the fund can count on, both in capitalization as well as the resources available for the implementation of activities.





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