



# FONDO PARA LA PROTECCIÓN DEL AGUA - FONAG

QUITO, ECUADOR

The inter-Andean part of the province of Pichincha (upper basin of the Guayllabamba River) is one of the most densely populated areas of Ecuador, mainly due to the presence of the Metropolitan District of Quito (MDQ), and faces problems of scarcity, competition and water pollution. The upper basin of Guayllabamba covers an area of 4,711 km<sup>2</sup>, and covers a large percentage of the cantons of Quito, Mejía, Cayambe and the entire Rumiñahui and Pedro Moncayo cantons.

The city of Quito is home to approximately 2.6 million people. The water resources that supply the needs of the population of the upper Guayllabamba basin come from transfers, surface water and groundwater. In the case of the aquifers of the city of Quito, over the years, they were gradually closed due to the deterioration of the wells and the economic and operational advantages of supplying potable water systems with surface water

However, the degree of deterioration of high Andean moors and wetlands, ecosystems that harbor many threatened animal species, also puts the city's water supply at risk. This concern motivated the creation of the first Water Fund, the Fund for the Protection of Water (FONAG) as part of a multisectoral collaborative effort with a clear focus on natural infrastructure.

The FONAG prioritizes the areas of water interest of the hydrographic units that supply water to the population of the MDQ:

- In the upper basin of Guayllabamba (where the Pisque, Pita and San Pedro rivers are born, which later make up the Guayllabamba River);
- In the upper basins of the Oyacachi, Chalpi Grande, Papallacta, Quijos Alto, Antisana and Tamboyacu rivers, which make up the Napo River;
- The Pichincha-Atacazo axis in the basins of the Mindo, Cinto and Saloya rivers.

FOUNDING PARTNERS



## THE POWER TO CONVENE DIFFERENT STAKEHOLDERS AROUND A COMMON GOAL

In 2000, the Municipal Sewer and Potable Water Company of Quito (now EPMAPS) and The Nature Conservancy created a private trust called FONAG which is regulated by the Securities Market Law of Ecuador. It was established as a growing patrimonial fund over a period of eighty years. The returns of the patrimony are invested in different projects that contribute to the supply of water of the city of Quito and areas of influence. The Electric Company of Quito, the National Brewery, Tesalia Springs Co. and CAMAREN, a non-profit private Ecuadorian consortium, joined this Fund as adhered constituents.

In addition, FONAG has other important allies such as the Ministry of the Environment, UNDP, the Green Climate Fund, the National Water Secretariat, the Ministry of Environment of the Metropolitan District of Quito, the National Institute of Meteorology and Hydrology, the National Institute of Geological Metallurgical Mining Research, the IRD of France, Cornell University, Imperial College of London, among others.

## KEY CONTRIBUTIONS TO WATER SECURITY

- In 2007, an ordinance in the MDQ required EPMAPS to allocate 2% of all sales income to a trust (FONAG) to protect watersheds and to build a culture of integrated water management.
- The current accumulated equity of the Fund is US\$16M whose interests generated are added to other contributions that generate a total amount of US \$ 2.5M that are invested in annual programs.
- Currently, FONAG comprehensively manages 20,000 ha of conservation areas (property of FONAG or EPMAPS).
- Comparative studies carried out in areas that are not managed by FONAG showed a very significant increase in the presence of suspended solids from 6 to 70 mg /l between 2014 and 2017 compared to those sites that are managed by FONAG that in the same period registered an increase of 4 to 11 mg/l. The high costs of water treatment to remove the sediments motivated EPMAPS to make a ROI study related to the conservation work carried out by FONAG. The study compared the projected cost of conservation in 20 years showing a positive return on investment of US \$ 2.15 for each dollar invested. This study positions FONAG as a solid ally and as a valuable player in the EPMAPS value chain.
- FONAG has created a research program to generate key information that contributes to impact monitoring and aims to cover 3 monitored areas. Currently, it has water quantity and quality monitoring in the Jatunhauyco micro-watershed and in wetlands and has initiated hydrological monitoring in the Alto Pita.
- FONAG has a hydrometeorological monitoring network in source areas that was extended to 11 weather stations, 7 rain gauges, 1 hydrological station and 4 more in small sources. All operate with high quality standards and an integrated information system is under development owned by EPMAPS-FONAG.
  - The environmental education program currently covers 17 schools in Yakuaulas with a range of 3,000 children; with the caravans of art, 70 children from the areas of Paluguillo have been trained, in addition to the Paluguillo interpretation center.



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## MISSION

To facilitate, in collaboration with local institutions and actors, the protection of the watersheds that supply water to the Metropolitan District of Quito (MDQ), through a financial mechanism that executes programs and conservation projects, ecological restoration and environmental education, fostering a new culture of water and integrated water resources management.

## VISION

To be the entity that facilitates and is recognized as an innovative and transparent technical reference in source water protection of drinking water for the MDQ,

## STRATEGIC OBJECTIVES

The FONAG created a Strategic Plan 2016-2020 which contemplates 3 strategic objectives that are linked to a series of strategies, programs and detailed lines of action.

- Manage the areas of special water interest in the MDQ's micro-watersheds.
- Strengthen FONAG's positioning with Human Resources allies.
- Strengthen FONAG's institutional performance.

## RESULTS AS OF DECEMBER OF 2018

WATER FUND PHASE	MATURITY
# of hectares implemented	<b>28,386 ha</b>
Families participating in projects upstream	<b>3,541</b>
Total investment US\$	<b>\$22,555,670 USD</b>

## FONAG PLAYS A KEY ROLE FOR THE SUSTAINABLE DEVELOPMENT AND WATER SECURITY IN QUITO

FONAG is the first Water Fund created in the world. TNC is a constituent and strategic ally of this Water Fund. As TNC is a founding partner of the Latin American Water Funds Partnership (LAWFP), FONAG has been supported by the LAWFP, an agreement between the Inter-American Development Bank (IDB), the FEMSA Foundation, the Global Environment Fund (GEF) and The Nature Conservancy (TNC) in order to contribute to the water security of Latin America and the Caribbean through the creation and strengthening of Water Funds.

