

REGIONAL PLATFORM FOR WATER RESOURCE MANAGEMENT

(RG-X1142)

FINAL EVALUATION

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Abbreviations and Acronyms

ANA	Agencia Nacional de Agua (Brazil)
AOP	Annual Operating Plan
ARESC	Agencia Reguladora de Servicios Públicos de Santa Catarina
BANDES	Banco de Desenvolvimento do Espirito Santo
CESAN	Companhia Espirito Santense de Saneamento
CO	Country Office
DEP	Department of Environmental Protection
EMASA	Empresa Municipal de Agua e Saneamento de Camboriu
EPA	Environmental Protection Agency
EPAGRI-CIRAM	Empresa de Pesquisa Agropecuaria e Extensao Rural – Centro de Informacoes de Recursos Ambientais e de Hidrometeorología de Santa Catarina
EPM	Empresas Publicas de Medellin
FAMM	Fondo de Agua Metropolitano de Monterrey
FEMSA	Fomento Económico Mexicano, S.A.B de C.V.
FIESTA	Fog Interception for the Enhancement of Streamflow in Tropical Areas
FONAG	Fondo del Agua de Quito
FUNDAGUA	Fundo Estadual de Recursos Hidricos do Espirito Santo
GEF	Global Environment Facility
IDB	Inter-American Development Bank
IEMA	Instituto Estadual do Meio Ambiente e Recursos Hídricos
InVEST	Integrated Valuation of Ecosystem Services and Tradeoffs
ISA	Instituto Superior de Agricultura
MOU	Memorandum of Understanding
MTE	Mid-Term Evaluation
NGO	Non-governmental Organization
LAR	Latin American Region
LAWFP	Latin American Water Funds Partnership
LAP	Land Acquisition Program
NYC	New York City
OM	Operations Manual
PEP	Project Execution Plan
PES	Payments for environmental services
RIOS	Resource Investment Optimization System
SEAMA/IEMA	Secretaria Estadual de Meio Ambiente do Espirito Santo/ Instituto de Meio Ambiente
SEDAPAL	Servicio de Agua Potable y Alcantarillado de Lima
TBD	To be decided
TNC	The Nature Conservancy
TNC WO	TNC Worldwide Office
TNC CO	TNC Country Office

TNC IP	TNC Implementing Partner
TOR	Terms of Reference
SWAT	Soil and Water Assessment Tool
SWTR	Surface Water Treatment Rule
WEAP	Water Evaluation and Planning
WF	Water Fund

Executive Summary

The *Regional Platform for Water Resource Management (RG-X1142)*, an initiative of the Latin American Water Funds Partnership (LAWFP)¹, was developed to provide tangible examples of the benefits of investing in nature-based solutions. The specific objective of the operation was to support the establishment of ten water funds in five countries, as follows²:

- Espirito Santo, Palmas, and Camboriu (Brazil)
- Bogota, Medellin and Santa Marta (Colombia)
- Santo Domingo and Yaque del Norte (Dominican Republic)
- Monterrey (Mexico)
- Lima (Peru)

These water funds are expected to function as financing mechanisms for the protection of their respective watersheds and the provision of long-term payments for environmental services. The total cost of the operation was estimated at US\$6 million, US\$5 million of which were to be drawn from the GEF's Earth Fund resources and US\$1 million from TNC's counterpart financing. TNC, as executing agency, was committed to mobilize an additional US\$14 million from different local and international sources, such as government contributions or bilateral agencies, and private sector donations.

Purpose of this evaluation

The purpose of this evaluation is to assess the operation's achievements by reviewing its compliance with a preset set of objectives, activities, outputs, and outcomes, as stated in the Results Matrix. The evaluation also identified execution obstacles and aspects that could be improved in future similar operations. In addition, the evaluation examined administrative procedures developed under the project and ascertained the effectiveness of monitoring and supervision arrangements. The following sections summarize the work conducted and its main conclusions and recommendations.

Methodology and constraints

This report is based on a review of the information produced during five years of project execution and on visits to nine of the ten water funds. During these visits, 45 individuals from 36 institutions and organizations --water utilities, environmental protection agencies, municipal authorities, private sector companies, universities, and non-governmental organizations-- were interviewed between October 26th and

¹ The Latin American Water Funds Partnership (LAWFP) is an initiative of TNC, FEMSA Foundation, IDB and GEF, designed to provide technical and financial assistance for the creation and strengthening of *water funds*, as innovative mechanisms for watershed protection.

² The Platform initially included nine Water Funds. However the Santa Marta WF (Colombia) was added to the list in 2015 (as explained in Section 3.1.1.3).

December 9th, 2016. Additionally, field visits to four of the nine watersheds were carried out to directly observe environmental conditions and conservation projects in execution. The consultant also participated in broad discussions with managing staff from TNC, FEMSA Foundation, and IDB, in charge of overall project administration and supervision, to review lessons learned for the benefit of a new follow-up operation currently under development. These discussions took place within a workshop organized by the LAWFP in Washington, DC, on Dec. 13th and 14th, 2016.

The ten funds constitute separate and independent efforts to attempt to set up the best possible administrative and financing mechanism for watershed protection under diverse legal, institutional and environmental circumstances. This evaluation recognizes that these mechanisms are complex and quite recent, and that it would require a longer period of time to adequately conduct an in-depth analysis of each fund and to submit fund-by-fund recommendations. An effort was made, however, to identify their most salient features and to evaluate their degree of success, as well as their most notorious challenges. It should also be stated that the true level of success of a given fund can only be evaluated after a longer period of time of steady investment in watershed conservation and restoration.

Results Matrix

The operation's Results Matrix was composed of two outcomes and thirteen outputs with end-of-project targets. The two outcomes were to be measured by three indicators that intended to summarize the operation's overall achievements:

OUTCOME 1 Financing for the protection and management of key watershed leveraged	Target
Water funds established	7
Water funds financially strengthened	5
OUTCOME 2 Improved technical capacity for Water Funds	
Water funds with improved technical capacity	9
OUTPUTS	
Water funds with technical assistance provided	9
Workshops conducted	8
Communication materials completed	9
Technical (hydrological) studies completed	6
Legal / institutional studies completed	5
Socio-economic studies completed	7
Climate change analyses developed	8
Water fund launching events conducted	4
Demonstrative conservation projects funded	4
Endowment capitalized (in US\$ million)	1,9
Hydrological monitoring protocols developed	3
Socio-economic monitoring protocols developed	7
Technical Secretariats financially supported	7

Project Effectiveness

Compliance with anticipated outcomes. The project made satisfactory progress towards the targets specified for three *outcome indicators*, reaching the stipulated goals in two of them, as explained below:

- (i) Seven water funds were *established* as initially planned³. The funds *established* were Bogota, Medellin, Santo Domingo, Yaque del Norte, Lima, Espirito Santo, and Monterrey. Four of these funds reached this level of development during the fifth year, revealing that the process was slower and more laborious than anticipated.
- (ii) Six water funds were *financially strengthened* through *capitalization of their endowment* with project contributions: Bogota, Medellin, Santo Domingo, Yaque del Norte, Lima, and Monterrey. This exceeded the original target, which had been set as five. In all six cases, disbursements occurred during the second half of the fifth year of execution.
- (iii) Nine water funds had their *technical capacity improved*⁴. However, one of them, Palmas (Brazil), had its work put on hold due to changes in priorities on the part of the private water utility, its principal stakeholder. The tenth fund, Santa Marta (Colombia), has not had its technical capacity improved due to its recent emergence.

Based on these outcomes, this review considers that the project met its preset targets. However, this review also recommends that the definition of *established fund* be reconsidered in future operations, giving more attention to aspects such as possessing a functioning Secretariat and a well-developed conservation strategy.

Compliance with anticipated outputs. The project also put in place and strengthened various critical components of the water funds, as measured by the predefined set of *outputs*. Of the thirteen *outputs* initially specified, eleven reached their targets, while the remaining two were generally close to attaining them, as shown on the following table. If all the *outputs* were considered of equal importance, the overall level of output completion would be 96%, which is highly satisfactory given the innovative nature of this operation. However, this review considers some *outputs* were more critical than others and would recommend that in future operations those more directly related to the development of detailed *conservation and financial plans*, or the financing of demonstrative projects, played a more

³ A *water fund* was considered *established* when (a) a Board Member Agreement or MOU had been signed, and (b) an Operations Manual had been endorsed by the Board members and approved by the IDB.

⁴ A *water fund* had its *technical capacity improved* when it had adopted hydrological and socioeconomic monitoring protocols and/or incorporated into their financial and conservation plans the feasibility studies and/or climate change studies; and/or when its technical Secretariat had received financial support.

prominent role. As for the Water Funds developed under this project, this evaluation recommends that additional assistance be made available to assure the development of strong *conservation and financial plans* in all cases.

Outcomes and Outputs Attained

Indicator	Unit	Planned for end of project	Actually attained (Aug 2016)
Outcomes			
Outcome 1: Financing for the protection and management of key watershed leveraged			
Water funds established	WF	7	7
Water funds financially strengthened	WF	5	6
Outcome 2: Improved technical capacity for Water Funds			
Water funds with improved technical capacity	WF	9	9
Outputs			
Water funds with technical assistance provided	WF	9	9
Workshops conducted	Workshop	8	23
Communication materials completed	Material	9	27
Technical (hydrological) study completed	Study	6	6
Legal / institutional study completed	Study	5	5
Socio-economic study completed	Study	7	7
Climate change analysis developed	Analysis	8	8
Water fund launching event conducted	Event	4	5
Demonstrative conservation project funded	Project	4	3
Endowment capitalized	US\$ Million	1.9	2.0
Hydrological monitoring protocol developed	Protocol	3	3
Socio-economic monitoring protocol developed	Protocol	7	7
Water fund's Technical Secretariat supported	Technical Secretariat	7	5

Water Funds' current state. In spite of the different conditions under which each fund is beginning to operate, its design and development followed a similar path, known as the *project cycle*, with respect to the types topics that had to be examined and resolved. For the purpose of this evaluation, six criteria were assessed: (i) legal establishment; (ii) stakeholder participation; (iii) governance; (iv) financial robustness; (v) conservation strategy; and (vi) initial investments. In general, the last three aspects were clearly the ones where more progress and consolidation is still needed. Of the ten funds, the more consolidated were Espirito Santo and Medellin. Santa Marta, on the other hand, is at an early stage of development due to its relatively recent creation⁵.

⁵ The Santa Marta Water Fund was not initially considered a part of this operation, as it was created in early 2015.

Operation relevance

Watersheds throughout the region, especially those located geographically close to large urban areas and upstream from domestic, industrial and agricultural users, suffer significant environmental stress and deterioration. Water funds contribute to the solution of this challenge by providing new sources of financing environmental services that often go unrecognized or under-appreciated. They also create a coordinating mechanism between upstream property owners and downstream water users, where the needs of both are considered in a balanced and collaborative way. Furthermore, they offer a forum where various stakeholders, public and private, individual and organizational, can discuss and agree on watershed priorities and remedial measures. In summary, water funds contribute to: (i) better watershed governance, (ii) increased financial resources for conservation projects, and (iii) greater technical capacity to address watershed problems.

At the country and local level, this review found that in almost all cases the entities in charge of environmental protection and land use regulation were supportive of the efforts displayed by WFs to conserve and restore watersheds. As it is often the case, these institutions lack the human and financial resources to adequately play their legally established roles, or are statutorily limited in their efforts to seek and promote collaborative private-public alliances. Water utilities also expressed their keen interest in protecting their water sources and their institutional limitations to promote better conservation and agricultural practices on their own.

Project efficiency

Resources utilized. At the end of the five-year execution period, the operation had used 100% of the resources allocated to its various activities. The differences observed between the original budgeted amounts and actual expenditures were in general minor and normal in an operation of this nature. However, it should be highlighted that the amounts utilized for *studies* and for *demonstrative conservation projects* were comparatively lower than estimated⁶. Other outputs, such as *communication materials*, received slightly larger amounts than predicted. Technical assistance and overall management utilized nearly 17% of the operation's resources, or nearly US\$1.0 million, in agreement with what had been initially planned.

The use of resources per country showed an average of US\$845,000 and that the smaller amount was allocated to Brazil (US\$565,414), pointing out the fact that no endowment capitalization was provided in that country. The highest amount was disbursed to Peru (US\$1,025,446), being the Lima Fund the most supported from a financial standpoint by Platform resources.

⁶ In most cases this lower use of funds was due to the fact that private or public WF participants directly financed the studies needed as explained below.

The operation's financial resources used to support the development of each WF showed significant variation, around an average of US\$121,218 per fund⁷. This variation did not seem to correlate with watershed size or complexity, but rather with local legal/institutional conditions, stakeholder financial support, and the time and effort spent on the developmental phase.

As initially planned, water funds' partners, public and private, contributed significant resources to the WF's development process, as shown on the table below. The resources were mainly used to finance: (i) basic studies, as in the case of Medellin and Santa Marta; (ii) demonstrative conservation projects, of which Santo Domingo and Yaque del Norte are examples; or (iv) regular implementation of conservation projects, as in the case of Espirito Santo. The total amount of resources contributed, as reported by TNC, were US\$42.7 million. This amount is markedly influenced by Espirito Santo's State fund FUNDAGUA, which collected US\$29.5 million from royalties paid by oil and natural gas industries⁸. Subtracting that amount, the total contributions from private and public sources would have reached US\$13.5 million, which by itself is an amount close to the initial target of US\$14 million. Therefore, it can be safely concluded that the original target amount was achieved and surpassed.

Resources Contributed by Private and Public Partners

Water Fund	Private Entities	Public Entities	Total
Espirtu Santo		29,507,235	29,507,235
Camboriu	49,000	1,825,300	1,874,300
Palmas	190,343		190,343
Bogota	277,601	401,217	678,818
Medellin	960,989	1,615,907	2,576,896
Santa Marta	63,291		63,291
Yaque del Norte	411,565		411,565
Santo Domingo	568,984		568,984
Monterrey	6,017,424		6,017,424
Lima	826,002		826,002
Total	9,365,199	33,349,659	42,714,858

⁷ Applies to project resources spent on "outputs" related to fund preparation and design. Does not include endowment capitalization.

⁸ FUNDAGUA was established in 2008, before the TNC intervention in the state, to collect royalties (3%) from the oil and natural gas industries, which were to be used to finance water resources and watershed protection activities in the state (see Appendix 2). It is difficult to establish the precise amount of resources directly attributable to the enhancement activities promoted by TNC under this project, but the favorable results of these activities are widely recognized.

Overall results

In terms of its effectiveness, relevance, and efficiency, this review rates the operation's performance as "satisfactory" (S)⁹. However, given the long-term nature of the conservation work being promoted, it is difficult to fully assess the success of each of the various water funds at this early stage. In most cases, to have a noticeable impact, the WFs will have to effectively reach greater areas of their respective watersheds. Thus, their prosperity will depend on wise management, adequate implementation capacity, the solidness of their financial strategies and institutional foundations, the strength of their technical programs, and the enduring financial commitment of their members. These conditions should be coupled with strong monitoring and evaluation systems to show the benefits of nature-based solutions for watershed conservation.

Sustainability and risks

The assessment of sustainability risks was based on a review of the institutional, governance, financial, environmental, and sociopolitical aspects that pose potential obstacles to the individual WFs activities and the continuation of their beneficial results into the future. From the visits carried out, it became clear that the likelihood of success and sustainability is highly dependent on local conditions and on the support that the LAWFP can provide beyond the project's execution period. Therefore, this evaluation believes that, in general, the funds supported by this operation have a moderate likelihood (ML) of becoming successful as financial and technical mechanisms for transferring resources and technical expertise in their respective watersheds¹⁰. A long-term commitment by the LAWFP is highly desirable to properly support these fledgling organizations.

Monitoring and Evaluation Systems

This evaluation reviewed the M&E responsibilities, as well as the instruments designed to carry them out. The project's execution arrangement and results matrix constituted an adequate system to track implementation progress and oversee results. TNC collected and reported the information from each WF and consolidated it into periodic reports submitted to the IDB. Annual Operating Plans were developed, reviewed, and updated each year. Periodic progress packages were prepared, which included annual budgets and updated procurement plans. TNC also maintained archives of the documents being produced by all funds. This review did not detect significant shortcomings in these procedures, although more expeditious and simpler ways of reporting are being considered. For these reasons, the quality of M&E design and implementation is rated as satisfactory (S). This evaluation incorporates

⁹ Based on the *Guidelines for GEF Agencies in Conducting Terminal Evaluations*. Evaluation Document No. 3. 2008. "Satisfactory" (S) projects had minor shortcomings in the achievement of its objectives in terms of relevance, effectiveness, or efficiency.

¹⁰ Ibid. "Moderate likelihood" (ML) refers to the assessment of the likelihood and magnitude of the risks that affect sustainability.

most of the Mid-Term Evaluation's findings and constitutes an update and an extension of that assessment. As part of the MTE and this final evaluation, all ten funds were visited, including tours of watersheds and demonstrative projects at seven WFs.

Recommendations for follow-up operations

1. **Output indicators.** Integrate the various types of studies to be conducted (hydrological, socioeconomic, legal/institutional, climate change and monitoring protocols) under a smaller number of outputs in the Results Matrix. Prepared jointly, these studies are more likely provide actionable recommendations to the WFs' Technical Secretariats.
2. **Definition of an *established* water fund.** A more operational definition should include aspects such as a functioning Secretariat, a well-developed conservation strategy, a minimal amount of financial resources, to indicate a realistic capacity to successfully start investing and monitoring activities in the watershed.
3. **Quality and scope of design studies.** In future efforts to promote proper WF design, three critical aspects would help to improve the quality and usefulness of the studies: (i) a comprehensive watershed analysis, (ii) an explicit recognition of modeling limitations, and (iii) a delineation of practical and actionable recommendations. Considering the weaknesses identified, this review recommends a closer degree of interaction and specialized assistance to the Water Funds' Secretariats from the "*TNC WO Technical Support*" unit or from another qualified source.
4. **Level of detail in conservation and financial plans.** Greater emphasis should be placed on transforming the recommendations formulated by the previous studies into comprehensive *conservation and financial plans* that clearly define priority areas and specify the most essential activities to be promoted and supported. This review would also recommend the use of output indicators more directly related to the preparation of such critical documents to help guide these emerging organizations into the operational phase.
5. **Preparation and contracting of demonstrative projects.** In order to accelerate the process towards WF autonomy and independence, this evaluation recommends earlier direct involvement of WF staff in all tasks related to selecting, contracting, and supervising initial demonstrative projects. Thus, the Technical Secretariats should be constituted, properly staffed, and adequately empowered during the WF development process to increasingly assume these responsibilities.
6. **Numeric targets and anticipated results.** Predicted improvements in water quantity and quality resulting from watershed conservation and restoration projects should be solidly supported on rigorous scientific research and on a detailed analysis of local environmental conditions. These analyses should take

into full account annual and seasonal variations in water flow and water composition, which make projections and causality relationships difficult to establish. This same degree of care should also be taken when assessing potential economic benefits to downstream users, such as cost reductions in water treatment processes for water utilities.

7. **Continual WF monitoring.** Comprehensive independent reviews of the funds should be conducted every two years by small interdisciplinary teams in order to assist the fund's directors with observations and recommendations that only an objective and in-depth analysis could provide. This approach could also benefit the LAWFP as a whole by compiling good practices and successful approaches to common problems.

1. Introduction

1.1. Purpose of this Evaluation

The *Regional Platform for Water Resource Management (RG-X1142)* was created to support the establishment of ten water funds in five Latin American countries, as follows:

- *Brazil:* Espirito Santo, Palmas, and Camboriu
- *Colombia:* Bogota, Medellin, and Santa Marta
- *Dominican Republic:* Santo Domingo and Yaque del Norte
- *Mexico:* Monterrey
- *Peru:* Lima

At the end of the five-year period, these water funds were expected to be functioning as financing mechanisms for the protection of their respective watersheds and the provision of long-term payments for environmental services.

The purpose of this Final Evaluation, according to the Terms of Reference (TOR), is to assess the results obtained by the operation, including individual fund design, implementation, outcomes and impacts. The stated specific requests were:

- i. Evaluate project design, monitoring and evaluation procedures, and adaptive planning;
- ii. Analyze stakeholder participation;
- iii. Assess project and funds sustainability and sense of ownership;
- iv. Promote transparency and accountability during consultation and discussions with fund participants and stakeholders;
- v. Identify lessons learned that will be useful in future GEF activities;
- vi. Provide feedback to GEF on strategic objectives of biodiversity projects, such as financial sustainability;
- vii. Assess relevance of results vis-à-vis GEF objectives and regional priorities;
- viii. Evaluate performance of all participating institutions, including IDB as implementing institution; and
- ix. Evaluate the use of grant and counterpart resources.

1.2. Key Issues Addressed

This evaluation was carried out at two levels: (i) a fund-by-fund examination of institutional, legal, socio-economic, environmental, financial, and technical issues and constraints; and (ii) an assessment of the degree of progress and success attained

by the project as a mechanism for promoting the creation and establishment of water funds in preselected watersheds. The project's assessment included an appraisal of the centralized administrative, reporting, monitoring and supervision procedures. These two levels of examination are not dissociated from each other, but are rather complementary and interdependent since the cumulative success or failure of the individual funds determine the achievements of the project as a whole.

It should be highlighted that this report has greatly benefitted from the findings of the Mid-Term Evaluation (MTE) conducted between October 6th, 2014, and May 29th, 2015. That evaluation was conducted when the four-year outputs were being attained and therefore constituted a useful base upon which to review the difficulties and/or achievements of the following one and one-half years of continued activity. Thus, this evaluation incorporates most of the MTE's findings and, in a way, constitutes a reevaluation of those findings and an expansion of the assessment when necessary. An effort has been made to recognize corrective measures adopted by the project to address the issues raised by the MTE.

1.3. Methodology and Constraints

This report is based on: (i) a review of the information produced during five years of project execution at both the central coordinating level and the individual fund level; (ii) visits to the nine water funds and interviews with 45 individuals --administrators and stakeholders-- from 36 institutions and organizations; (iii) field visits to four of the nine watersheds where time and conditions allowed, (iv) meetings arranged with local TNC staff at the nine funds visited, and (v) broad discussions with TNC, FEMSA Foundation, and IDB staff in charge of overall project administration, supervision and overseeing. For the latter discussions, advantage was taken of a workshop organized by the LAWFP, which was held in Washington, DC, on Dec. 13th and 14th, 2016. This workshop sought to collect and discuss valuable lessons from the operation under review for the benefit of a new follow-up operation currently under development.

All the events mentioned provided the opportunity to review the project's objectives, procedures and achievements with administrators and stakeholders and to obtain first-hand information on the processes that are taking place at each of the nine funds. The first set of fund visits was conducted between October 26th and November 15th and the second set from December 5th to December 9th, 2016. The on-site interviews were held with key individuals working for water utilities and other participating public institutions, private sector companies, university staff, non-governmental organizations, and local TNC personnel. Various topics were covered, ranging from project design, to watershed selection, stakeholder participation, studies conducted, funds' legal structure, governance issues, implementation difficulties, and financial matters. A list of the individuals interviewed during the visits to the nine funds is shown in Appendix 3. A record of the participants in the Washington workshop appears in Appendix 4.

It should be noted that each of the nine funds constitutes a separate and independent effort to try to set up the best possible financing mechanism for watershed protection under very diverse local, legal, institutional and environmental circumstances. This evaluation recognizes that these mechanisms are complex and that it would require a longer period of time, than the one available to this consultancy, to conduct an in-depth analysis of each fund and to submit fund-by-fund recommendations. An effort has been made, however, to identify their most salient points and to evaluate their relative degree of success, as well as their most notorious challenges. It should also be emphasized that the true level of success of a given fund can only be evaluated after a longer period of time of steady investment in watershed conservation and restoration. The majority of the funds visited are just starting their operational phase.

2. Summary of the Project

2.1. Objective

In December 2009, the Inter-American Development Bank (IDB) and the Nature Conservancy (TNC) jointly applied for a US\$5 million grant from the Earth Fund of the Global Environment Facility (GEF) to implement the *Regional Platform for Water Resource Management*. The submitted proposal was approved and endorsed by GEF in May 2010 and the Non-Reimbursable Finance Agreement between IDB and TNC was signed on March 16, 2011.

The objective of the *Regional Platform* was to support the establishment of water funds in at least five Latin American and Caribbean countries. The WF would function as financing mechanisms for the protection of key watersheds and for providing long-term payments for environmental services. Ten funds were selected to receive assistance from the operation (see Table 2.1)¹¹. This project is supported by the Latin American Water Funds Partnership (LAWFP), an initiative of TNC, FEMSA Foundation, IDB and GEF, developed to provide clear examples of the benefits of investing in natural capital.¹²

Table 2.1 Participating Funds

COUNTRY	WATER FUND
Brazil	Espirito Santo
	Camboriu
	Palmas
Colombia	Bogota
	Medellin
	Santa Marta
Dominican Republic	Yaque del Norte
	Santo Domingo
Mexico	Monterrey
Peru	Lima

2.2. Description

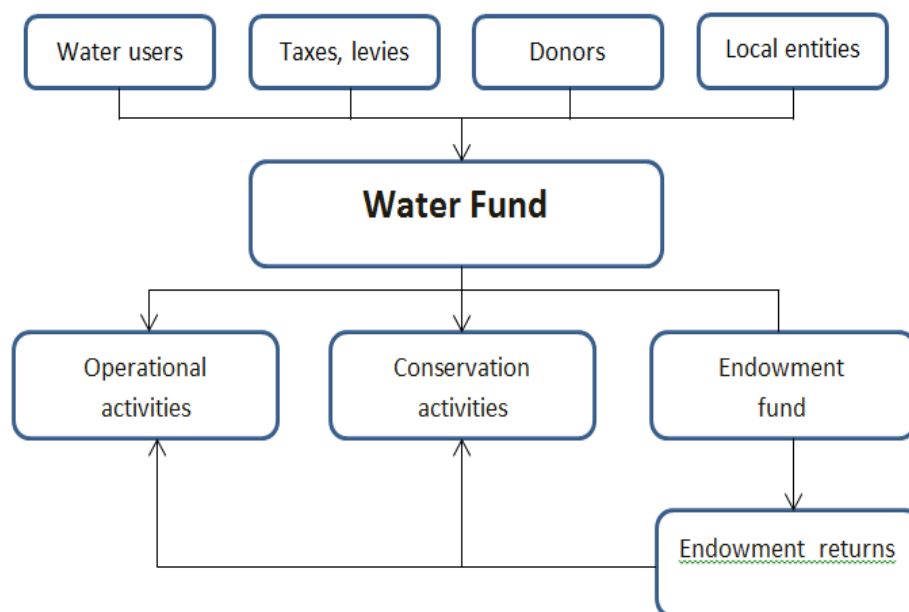
The water funds seek to obtain financing from a variety of public and private sources such as: water utilities, hydro-electricity providers, bottling companies, food processors and other large water users; local taxes or levies; and individual donations

¹¹ The Platform initially included nine Water Funds, three of which were located in Brazil. However, work activities in the Palmas WF were suspended in 2016 (as explained in Section 3.1.1.3). Also, the Santa Marta WF (Colombia), which had not been initially included, was added in 2015.

¹² The information provided in this Summary was obtained primarily from the Non-Reimbursable Financing Proposal presented to the IDB's Board of Directors in January 2011 and from the Platform's Operations Manual of August 2012.

and international contributions (see Figure 2.1). The resources gathered can be used to cover initial costs, operational expenses and demonstrative conservation projects. Where countries' laws permit, the net balance can be placed in endowment funds administered by independent asset managers. The financial returns generated by the endowments can also be used to cover operational costs and long-term payments to conservation projects.

Figure 2.1 Water Fund Financing



TNC 2011

The amount of funding needed to accomplish the water fund's conservation objectives should be specified in the Fund's *Financial Plan*. This plan should provide a detailed account of current and potential sources of funding, financial projections, endowments' expected rate of return, investment strategy and conservation costs, including project supervision and monitoring.

The conservation projects financed are grouped into the following broad categories: (i) payment for environmental services, including biodiversity conservation; (ii) water resource management such as sustainable land use; and (iii) conservation and restoration projects for further protection of the natural habitat where the environmental services originate. The prioritization of projects and eligibility criteria for conservation activities should be detailed in the Fund's *Conservation Plan*. This plan should describe specific conservation objectives, geographic areas of intervention, conservation strategies, and clear guidance on where and how the fund's resources are going to be deployed.

The Operations Manual jointly developed by the IDB and TNC at the start of this work stipulated that TNC, as executing agency, should be part of the Board and

Advisory Committee of each water fund, and as such, it should play a key role in providing technical advice to develop the financial and conservation plans.

2.3. Components

The operation was divided into two components: (i) an operational component that dealt with the establishment of the water funds; and (ii) a project management component, that involved central coordination, general supervision, and monitoring of activities.

2.4. Resources

The total cost of the project was US\$6 million, US\$5 million of which were drawn from the GEF's Earth Fund resources and US\$1 million from TNC's counterpart financing. The following table provides a breakdown by component and source of financing.

Table 2.2 Project Cost and Financing

Project Component	GEF Financing	TNC Counterpart Financing	Total Financing
Component 1: Water funds	4,410,000	565,000	4,975,000
Component 2: Project Management and Monitoring	500,000	435,000	935,000
Final External Audit	90,000	-	90,000
Total	5,000,000	1,000,000	6,000,000

In general terms the funding allocated to Component 1 was to be equally distributed among the five selected countries. Small variances of up to 10% from country to country were to be allowed. TNC would provide a total of US\$565,000 in cash to finance the water funds start-up costs and US\$435,000 in kind for project's management and monitoring. TNC sought to mobilize an additional US\$14 million from different local and international sources such as government contributions or bilateral agencies, and private sector donations.

2.5. Execution

The Executing Agency for the project was The Nature Conservancy (TNC), through its Latin America Regional Office. IDB and GEF were responsible for overall supervision of project implementation, and ensuring consistency with GEF and IDB policies and procedures. The organizational structure shown in Figure 2.2, obtained

from the project's Operations Manual¹³, illustrates the management, coordinating, supervisory, and advisory tiers at both regional and national levels.

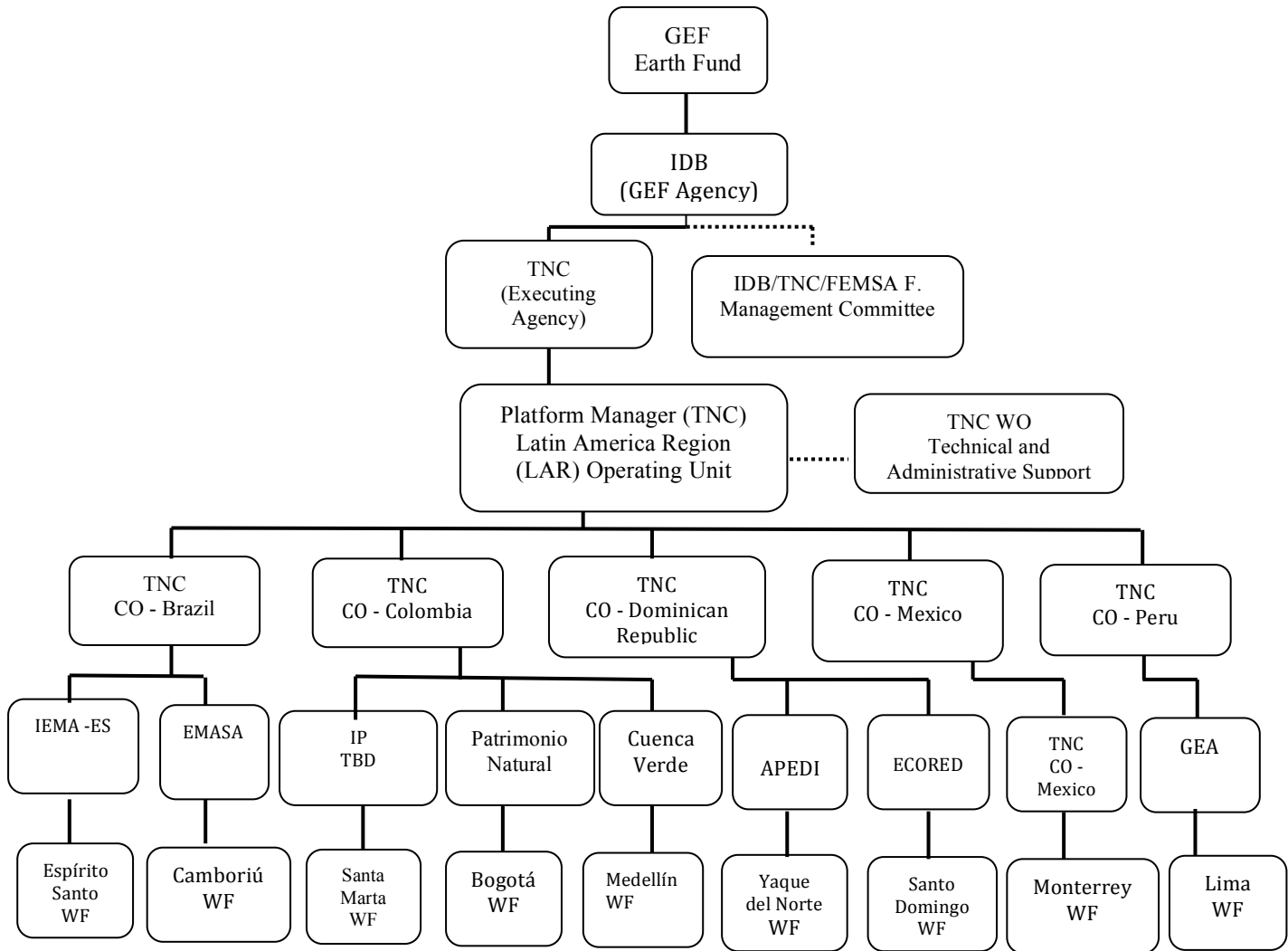


Figure 2.2 Platform Management Structure

¹³ This structure has been slightly modified to include the Santa Marta WF in Colombia, instead of the Palmas WF (Brazil), which appeared on the original structure. The development of the Palmas WF was discontinued as explained in Section 3.1.1.3.

2.6. Results matrix

The operation's Results Matrix was composed of two outcomes and thirteen outputs with end-of-project targets (see Annex 1). The two outcomes were to be measured by three indicators that intended to summarize the project's overall achievements:

Project's objective: To support the establishment of a series of water funds in at least five countries across the Latin American and Caribbean region that would serve as financing mechanisms for the protection of key watersheds and the provision of long-term payments for environmental services.

Outcome 1: Financing for the protection and management of key watershed leveraged:

Indicator	Target
Water funds established	7
Water funds financially strengthened	5

Outcome 2: Improved technical capacity for Water Funds:

Indicator	Target
Water funds with improved technical capacity	9

Outputs: The 13 **outputs** and their final targets were:

Output	Target
Water funds with technical assistance provided	9
Workshops conducted	8
Communication materials completed	9
Technical (hydrological) studies completed	6
Legal / institutional studies completed	5
Socio-economic studies completed	7
Climate change analyses developed	8
Water fund launching events conducted	4
Demonstrative conservation projects funded	4
Endowment capitalized (in US\$ million)	1,9
Hydrological monitoring protocols developed	3
Socio-economic monitoring protocols developed	7
Technical Secretariats financially supported	7

3. Findings

3.1. Project's Achievements

This evaluation of the project's achievements consists of the following five topics: (i) a review of the operation's effectiveness, as demonstrated by the attainment of the outputs, outcomes and objectives established at the start of the operation; (ii) an analysis of the operation's relevance and of its consistency with national, regional and local priorities; (iii) an assessment of legal, organizational and financial accomplishments; (iv) an examination of the conservation strategies developed and initial activities financed; and (v) an appraisal of the results reported by the individual water funds. The following subsections address each of these topics.

3.1.1. Project Effectiveness: Attainment of Outputs, Outcomes and Objectives

The review of the operation's effectiveness is based on the Progress Reports on outputs and outcomes submitted by TNC to the IDB during the five-year execution period, on interviews conducted for this review in November and December of 2016, and on field visits to some of the WFs' watersheds¹⁴. A record of the accomplishments with respect to GEF's tracking tools is also presented, as well as a review the modifications to outcomes and outputs introduced during the implementation process.

3.1.1.1. Assessment Based on Results Matrix Indicators

In general, it can be stated that the project reached the end-of-project targets specified for the three *outcome indicators*, as shown in Table 3.1 and explained below:

- (iv) Seven water funds were considered *established* as initially planned. As stated in the means of verification set forth in the original Results Matrix (see Appendix 1), this qualification indicates that (a) a Board Member Agreement or MOU has been signed, and (b) an Operations Manual has been endorsed by the Board members and approved by the IDB. The funds *established* were: Bogota, Medellin, Santo Domingo, Yaque del Norte, Lima, Espirito Santo, and Monterrey. The three water funds that

¹⁴ The final Progress Report Package submitted by TNC was dated August 2016.

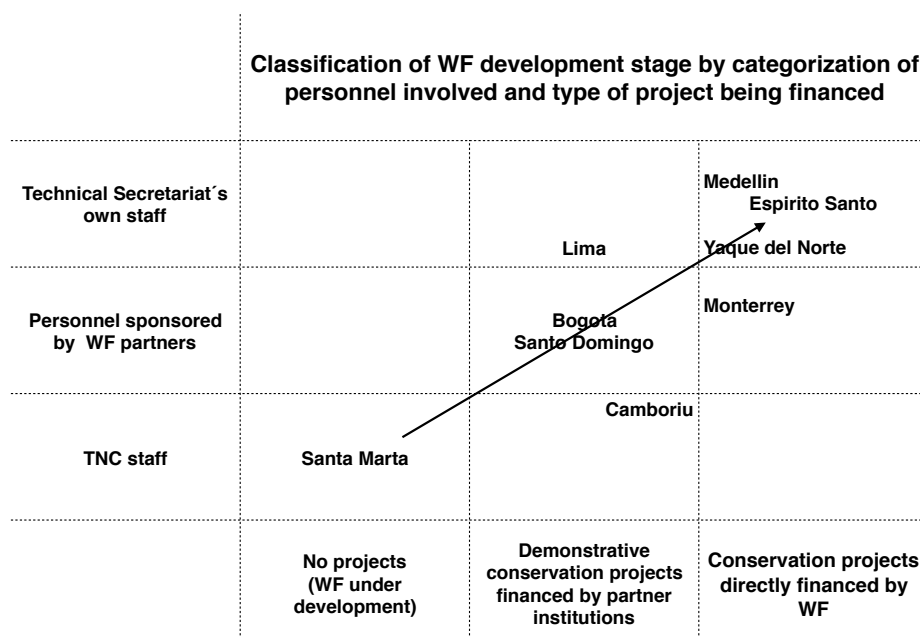
did not reach this milestone were the Camboriu and Palmas WFs (Brazil) and the Santa Marta WF (Colombia) where work started less than two years ago. Four funds reached this level of development during the fifth year, revealing that the process was slower and more laborious than anticipated.

- (v) Six water funds were *financially strengthened* through *capitalization of their endowment* using project resources: Bogota, Medellin, Santo Domingo, Yaque del Norte, Lima, and Monterrey. This exceeded the original target, which had been set as five. In all six cases, disbursements occurred during the second half of the fifth year of execution. The Camboriu and Espirito Santo funds, due to legal restrictions to endowments in Brazil, and the Santa Marta fund, where work is more recent, were unable to benefit from endowment capitalization.
- (vi) Nine water funds had their *technical capacity improved*. However, four funds reached this target by receiving financial support from the project and not by having adopted hydrological and socioeconomic monitoring protocols, or having incorporated elements of their climate change studies into their conservation planning processes, which would have reflected a higher technical capacity and a more advanced stage of fund development.¹⁵ The Santa Marta WF has not had its technical capacity improved due to its relatively recent creation.

Table 3.2 and Figure 3.1 display the results described above. Based on these outcomes, this review considers that the operation met its preset targets. However, this review also recommends that the definition of *established fund* be reconsidered in future operations. As explained, the means to verify compliance with this indicator stipulated two conditions that to this review seemed insufficient. Consideration should be given to aspects such as possessing a functioning Secretariat, a well-developed conservation strategy, the required amount of financial resources, and the clear capability to start investing in the watershed.

Another, perhaps more practical way of assessing if the WF has been *established* is: (i) to observe the number of conservation projects actually contracted, administered and financed through the WF and (ii) to observe if the Technical Secretariat has at its disposal its own personnel to carry out the tasks of selecting, contracting and supervising conservation projects, or if this work is being financed by another institution. By these two rather simple criteria, the stage of fund development can be represented as shown in the graph below. The upper right-hand corner depicts a greater degree of WF independence and autonomy.

¹⁵ The means of verification recognized two ways of complying with this outcome. One of them, receiving financial support from the project, seems to this review less indicative of actually improved technical capacity.



The project also put in place and strengthened various critical components in each of the ten water funds, as measured by the predefined set of *outputs*. Of the thirteen *outputs* initially specified, eleven reached their numeric targets as shown in Table 3.1. The remaining two were close to reaching their intended goals as depicted in Figure 3.2, where the targets for each *output* are presented with each indicator's name and the percentage of completion is represented by the height of the column. It should be noted that the outputs that reached their targets include the Palmas WF. As explained in Section 3.1.1.3, these fund's activities have been temporarily suspended due to changing priorities within the company in charge of the city's water supply, which was the WF's primary stakeholder.

Table 3.1 Outcomes and outputs attained

Indicator	Unit	Planned for end of project	Actually attained (Aug 2016)
Outcomes			
Outcome 1: Financing for the protection and management of key watershed leveraged			
Water funds established	WF	7	7
Water funds financially strengthened	WF	5	6
Outcome 2: Improved technical capacity for Water Funds			
Water funds with improved technical capacity	WF	9	9

Outputs			
Water funds with technical assistance provided	WF	9	9
Workshops conducted	Workshop	8	23
Communication materials completed	Material	9	27
Technical (hydrological) study completed	Study	6	6
Legal / institutional study completed	Study	5	5
Socio-economic study completed	Study	7	7
Climate change analysis developed	Analysis	8	8
Water fund launching event conducted	Event	4	5
Demonstrative conservation project funded	Project	4	3
Endowment capitalized	US\$ Million	1.9	2.0
Hydrological monitoring protocol developed	Protocol	3	3
Socio-economic monitoring protocol developed	Protocol	7	7
Water fund's Technical Secretariat supported	Technical Secretariat	7	5

Note: The numbers in red represent values that fell short of the end-of-project target.

Figure 3.1 Outcomes Attained (Aug. 2016)

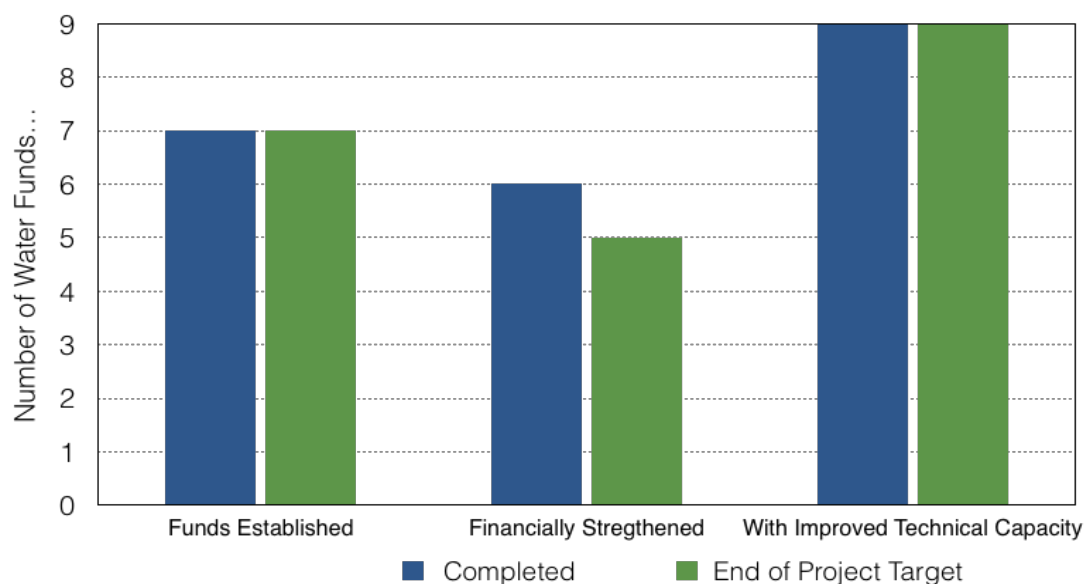


Figure 3.2 Outputs completed

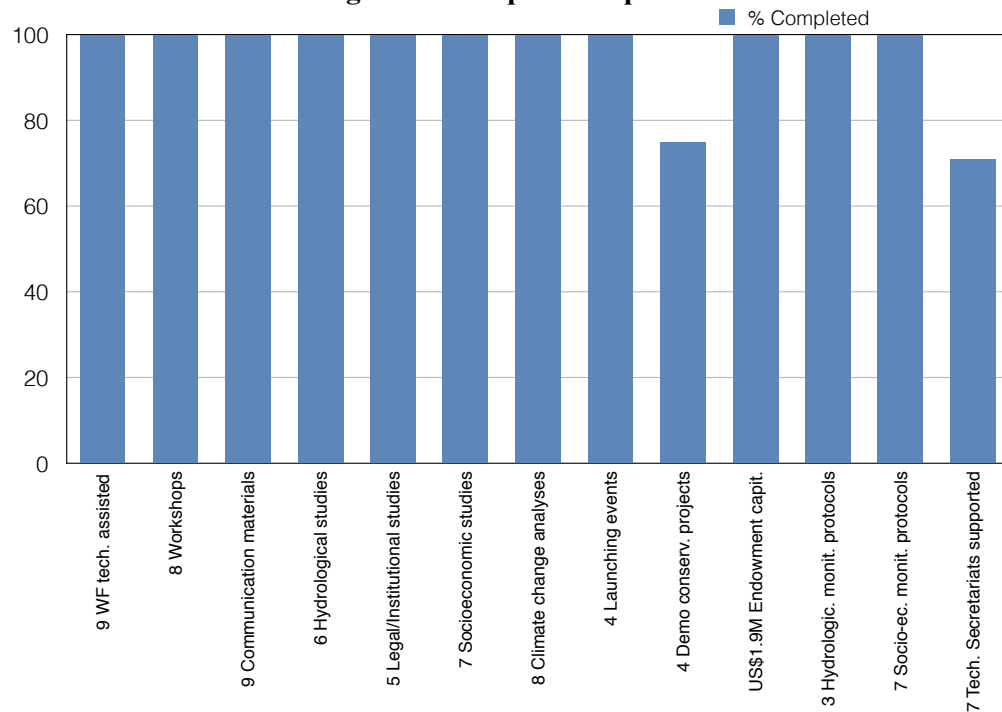


Table. 3.2 Output Completion Review

END-OF-PROJECT INDICATOR	PROGRESS ACHIEVED (%)	COMMENTS
Outcomes		
1. Seven WFs established	100	Target met.
2. Five WFs financially strengthened	100	Target exceeded.
3. Nine WFs with improved technical capacity	100	Target met. Due to its recent incorporation, the Santa Marta WF has not had its technical capacity improved.
Outputs		
1. Nine water funds technically assisted	100	Target met. Santa Marta has not received this assistance.
2. Twenty three workshops conducted	100	Target exceeded.
3. Twenty seven communication materials completed	100	Target exceeded.
4. Six hydrological studies completed.	100	Target met. The Santo Domingo, Yaque del Norte, Camboriu Lima, Palmas, and Monterrey studies were completed.
5. Five legal / institutional studies completed	100	Target met. The Santo Domingo, Yaque del Norte, Camboriu, Palmas, Lima, and Monterrey studies were completed.

6. Seven socio-economic studies completed.	100	Target met. Studies for Yaque del Norte, Santo Domingo, Bogota, Lima, Camboriu, Palmas, and Santa Marta were completed.
7. Eight climate-change analyses conducted	100	Target met.
8. Five water-fund launching events conducted	100	Target exceeded.
9. Three demonstrative conservation projects funded. (The indicator was four)	75	Projects funded for the Espirito Santo, Yaque del Norte and Monterrey WFs.
10. Six endowments were capitalized (The indicator was US\$1.9 million)	100	Target exceeded. Funds were transferred to: Bogota (\$297K), Lima (\$446K), Medellin (\$340K), Yaque del Norte (\$213K), Santo Domingo (\$278K), and Monterrey (\$435K).
11. Three hydrological monitoring protocols developed.	100	Target met.
12. Seven socio-economic monitoring protocols developed.	100	Target met.
13. Five water fund's Technical Secretariats financially supported. (The indicator was seven)	71	The Lima, Bogota, Monterrey, Espirito Santo, and Yaque del Norte's Technical Secretariats received financial support from the project.

If all the outputs were considered to be of equal importance and relevance, the overall degree of output completion would be 96%. This review considers this a highly satisfactory value, given the innovative nature of this operation and the complex conditions under which the WFs are being developed. However, this review also considers some outputs were more critical than others and would recommend that the outputs more directly related to the preparation of comprehensive and detailed *conservation plans* and the development of a short and long-term *financial strategies*, that could serve as guiding documents to the Technical Secretariats of these emerging organizations, received more emphasis. These two documents were only included as appendices to the Operations Manuals (see Section 3.2.1), thus being relegated to a less prominent place within the group of studies and documents required.

With respect to output compliance, it is also pertinent to point out that most of the design studies, corresponding to outputs 4 – 7, were conducted before the mid-term evaluation took place. That evaluation highlighted that greater emphasis should have been placed on transforming the recommendations formulated by these studies into comprehensive conservation and financial plans, thus more clearly defining priority areas for intervention and better specifying the most critical activities to be promoted and financed. It should be recognized, though, that some funds have attempted to convey these strategic directives through their Operations Manuals but not always with the necessary level of detail.

3.1.1.2. *GEF tracking tools*

A report on the platform's results vis-à-vis GEF's tracking tools is attached to this evaluation (see Appendix 5). It should be pointed out, however, that this operation did not specifically target protected areas, but critical and vital watersheds from the standpoint of major downstream users, such as cities, metropolitan areas and irrigation districts. The purpose of the WFs, as explained in Section 2.2, is to create viable mechanisms to transfer resources for watershed conservation and restoration activities for many years into the future. This initial five-year span has been spent developing the most appropriate legal and institutional mechanisms and strengthening their financial footing. Nevertheless, three of these watersheds contained areas with various degrees of protection as shown in Appendix 5. Most importantly, these mechanisms are beginning to have direct and indirect impacts on public and private lands, and therefore positively affecting biodiversity and land use sustainability.

3.1.1.3. *Modifications Introduced during Implementation*

This review considers that two adjustments introduced during the implementation period were of relative significance to merit recognition: the substitutions of some indicators that took place in 2012 and the inclusion of the Santa Marta Water Fund in 2016. These two modifications are discussed below. In addition, a temporary suspension of activities at the Palmas WF is also discussed below.

Outcome and output indicators. As the Mid-Term Review pointed out, in 2012 some *outcome indicators* were modified to facilitate tracking and verification of outputs, to timely detect possible delays in execution, and to be able to adopt corrective measures. As a consequence, *outcomes* that originally specified surface areas protected by fund activities (in hectares), or sediments retained by conservation actions (in tons), were eliminated and replaced with outcomes that stipulated the number of water funds being “*established*”, “*financially strengthened*”, or “*technically improved*”. Similarly, *outputs* that reflected increased private and public funding to pay for conservation projects, or that specified the number of partners engaged in watershed management were replaced with indicators of fund design and development. These modifications served the intended purpose of focusing attention on elements indicative of the initial stages of fund creation but left out indicators that could have reflected progress towards the funds' ultimate objectives of protecting terrestrial and freshwater ecosystems in their respective watersheds. “*Demonstrative conservation projects funded*” was the only output remaining that in some measure described actions that conveyed potential benefits to critical watersheds. Unfortunately, the numeric target set for this indicator was only four projects, which seems unambitiously low.

Santa Marta WF inclusion. The principal change introduced during the implementation process was the incorporation of the Santa Marta WF (Colombia) into the project in 2015. This was the result of an IDB petition, which in turn was derived from the interest, eagerness and commitment displayed by local stakeholders in this northern Colombian city. However, this decision to include Santa Marta at such late moment will most certainly require additional assistance from TNC beyond the Platform's execution period.

Palmas WF status. Activities at the Palmas WF (Tocantins, Brazil), also known as the Taquarussu WF for the name of the river and its basin, have been temporarily discontinued since mid-2016. To make the provisional suspension of the work official, TNC sent a Memorandum to the IDB on Oct. 14, 2016, expressing the reasons for putting this WF "on hold"¹⁶. The decision was based on the fact that Odebrecht Ambiental, the private water company in charge of supplying water to the city, had laid off the team in charge of the WF project and removed the watershed protection activities from its investment plan. Considering that Odebrecht Ambiental was the sole stakeholder, from a water demand perspective, the decision to discontinue the work appears justified and unavoidable.

However, given that the decision to suspend work in the Palmas WF has not been presented as definitive, this review would recommend that if a reactivation were to be proposed in the future, it should take into account: (i) that the Taquarussu River basin is relatively small (397 km²), thus producing limited flows during the drier months of the year (June to August) severely restricting the city's drinking water supply; (ii) that the city is located next to the Lajeado reservoir, a relatively large body of water (630 km²) built in 2001 to impound the Tocantins River for electricity generating; and (iii) that the existing water purification plant is also located close to the reservoir's edge, thus making this artificial lake a potential and perhaps more dependable and economically advantageous water source to the city.

3.1.2. Project Relevance and Consistency with Regional Priorities

Given the environmental stresses suffered by watersheds throughout the region, especially those located close to large urban areas and those that supply indispensable water to downstream domestic and industrial users and to agricultural areas, the relevance of the WF concept is without question. As previously stated, the water funds contribute to the solution of these challenges in the following ways: (i) by providing new sources of financial resources to pay for environmental services that often go unrecognized or under-appreciated; (ii) by creating a coordinating mechanism between upstream private property owners and downstream users, which can potentially consider the needs of both in a balanced and collaborative way; (iii) by offering a forum where various

¹⁶ Memorandum from LAR Water Security Unit and Brazil Conservation Program, TNC, to German Sturzenegger. October 14, 2016.

stakeholders, public and private, individual and organizational, can discuss, ponder, and agree on watershed priorities and remedial measures.

At the country and local level, this review found that in almost all cases the entities in charge of environmental protection and land use regulation were always supportive of the efforts to conserve and restore watersheds and clearly manifested their agreement with the general approach and proposed goals. In most cases these institutions were active participants of the Boards of Directors or at least in stakeholders meetings (see Appendix 2). As is often the case, these institutions lack the human and financial resources to adequately play their legally established roles, or are statutorily limited in their efforts to seek and promote collaborative private-public alliances. The participating water utilities also expressed their keen interest in watershed protection, on both water quality and water quantity considerations, and their institutional limitations to promote better conservation and agricultural practices on both public and private lands.

3.1.3. Results by Fund

In describing the progress attained by each individual fund, this review would like to emphasize the markedly different conditions under which each fund was developed and is expected to operate. Besides dissimilar legal and institutional circumstances, which are in great measure country and region-specific, there were three aspects, identified by the mid-term review, that distinctly affected the watershed complexity: (i) basin surface area and associated climatological and hydrological characteristics; (ii) size of rural and urban populations inhabiting both the watershed and downstream areas; and (iii) land uses, especially the proportions kept with natural vegetation and under various human activities. As shown in the MTR, watershed surface areas vary from 200 Km², in the case of Camboriu, to 46,190 Km² in the case of Espirito Santo. Downstream population sizes oscillate between 500,000 people, in the case of Santa Marta, to more than nine million, like Lima. Lastly, significant variability was also observed in the percentages of land dedicated to agriculture and other economic activities, as well as to preservation of natural vegetation. These differences are worthy of attention since the larger the watershed and the more populated, the more difficult is to study its biophysical and socioeconomic characteristics, to convene potential stakeholders, to plan conservation and restoration activities, to estimate their cost, and to produce measurable and significant impacts.

In spite of the vastly different conditions under which the water funds are beginning to operate, their design and development has certain similarities in the topics or issues that have to be examined and resolved. This evaluation examined the following six dimensions of WF development, updating the analysis carried out during the Mid-Term Review: (i) legal establishment, (ii) stakeholder participation, (iii) governance structure suitability, (iv) financial robustness, (v) conservation strategy, and (vi) initial investments. Ideally, these six aspects would be easily measurable and verifiable, thus facilitating the

evaluation of the fund's status at any given moment. In the case of the nine funds currently active, given the complexities of each case, a simplified analysis was conducted to provide a measure of the state of development of each fund with respect to specific criteria and common set of factors. Table 3.3 lists the main factors that were considered under each dimension.

Table 3.3 Analysis of a Water Fund Current Development Status

Dimension	Factors to consider
1. Legal establishment	• Existing enabling legislation • Legal studies conducted • Memorandum of understanding (MOU) • Water fund legal establishment completed • Trust or financial institution legal establishment • Pending matters
2. Stakeholder participation	• Public and private institutions effectively participating • Level of engagement of critical agents (water utilities, environmental institutions, and local authorities) • Civil society participation (NGOs, universities, etc.) • Private sector participation • Outreach: Dissemination of information through workshops
3. Organizational structure - Governance	• Institutional studies conducted • Existing and functioning Board of Directors • Composition of Technical Secretariat (staff hired) • Existing Advisory Committees • Coordination with financial management institution • Decision-making process • Pending matters
4. Financial robustness	• Available resources • Periodicity and stability of contributions • Sufficiency (with respect of watershed size and surface areas to be conserved or restored) • Attraction to additional investors and assessment of potential donor sources • Exploration of other financial mechanisms • Operating costs • Financial sustainability
5. Conservation strategy	• Watershed feasibility studies as input to WF creation ◦ Hydrological and socioeconomic characterization ◦ Biodiversity issues ◦ Environmental services ◦ Beneficiaries from watershed protection • Thoroughness of watershed conservation plan ◦ Objectives ◦ Geographic areas of intervention ◦ Types of conservation and restoration projects ◦ Project selection criteria ◦ Cost estimations ◦ Expected results ◦ Monitoring protocols • Financial strategy
6. Initial investments	• Demonstrative conservation projects

	• Types of activities implemented and areas of intervention • Number of contracts effectively in progress or carried out • Scope of investments (in proportion to watershed) • Available funding per year • Impacts of interventions in watershed
--	---

Table 3.4 summarizes the ratings given to every dimension, on a scale of 1 to 10, and an overall rating on the WF's state of development. Ratings were based on a review of the information provided by each fund and on the interviews conducted during the site visits. It should be made clear that this constituted a simplified assessment of a relatively complex undertaking. A more in-depth and comprehensive evaluation of each Fund is recommended in order to provide concrete recommendations to the Funds' Secretariats on the problems or challenges being encountered. Figures 3.3 to 3.5 graphically illustrate their state as of December 2016. A description of the most salient aspects considered in each of the nine WFs is presented in Appendix 2.

Table 3.4 State of Development of the Water Funds

Water Fund	Legal Establish.	Stakeholder	Governance	Financial Robust.	Conservation Strategy	Initial Investment	Overall Rating
Camboriu	7	5	7	6	5	2	5.3
Espirito S	10	6	9	9	8	5	7.8
Medellin	10	9	9	7	7	3	7.5
Bogota	9	6	7	5	5	1	5.5
S. Marta	3	4	2	4	2	1	2.7
Monterrey	10	9	8	8	6	4	7.5
Y de Norte	9	8	7	4	5	3	6.0
S. Domingo	8	7	6	4	5	3	5.5
Lima	9	6	7	5	4	2	5.5

Figure 3.3 State of Development of the Camboriu, Espirito Santo and Lima WFs

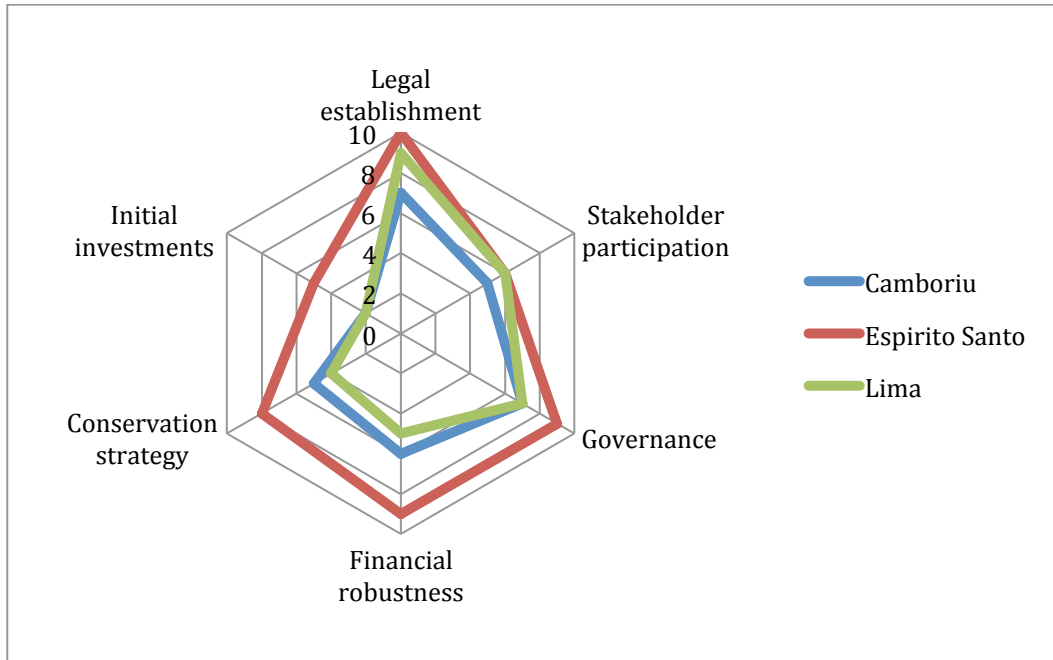


Figure 3.4 State of Development of the Bogota, Medellin and S.Marta WFs

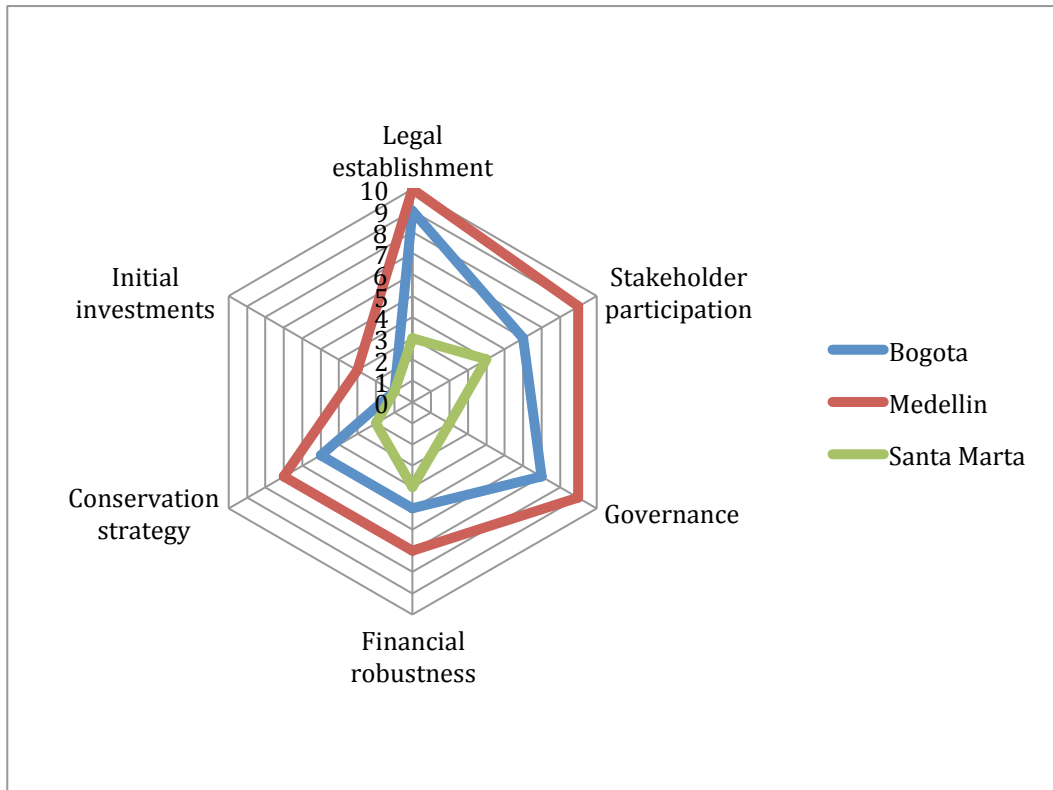
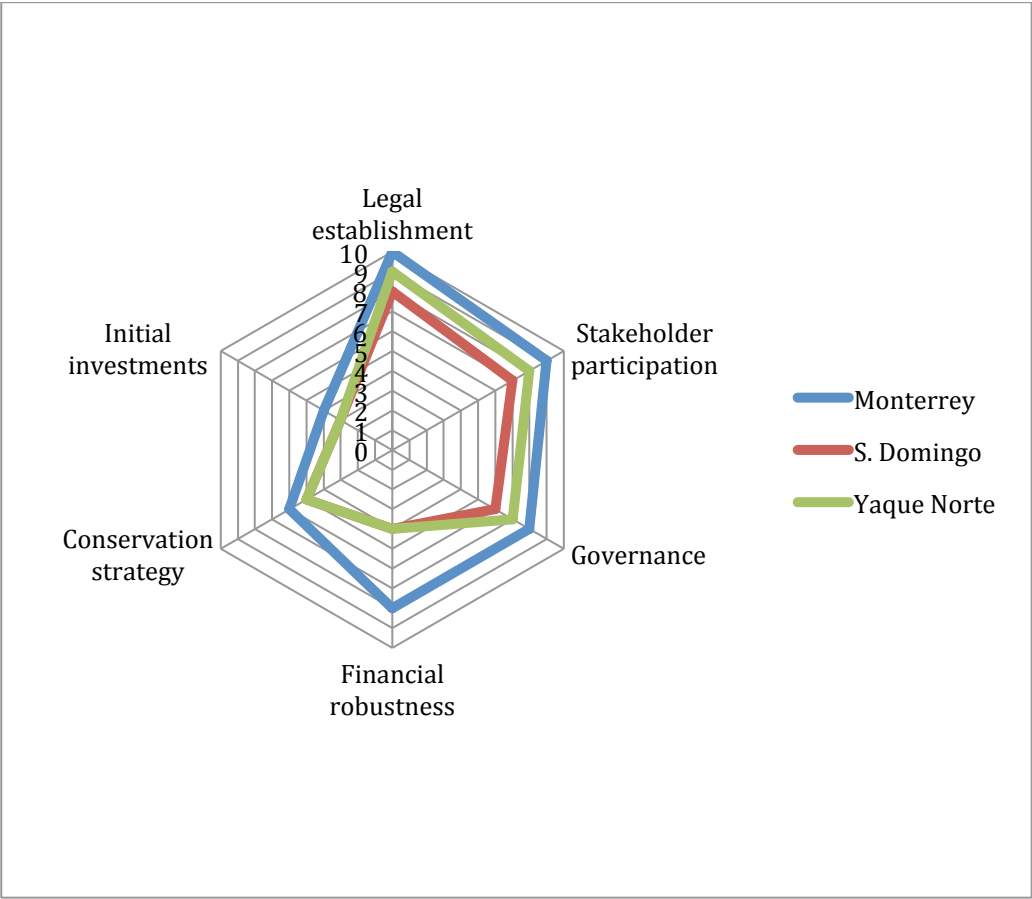


Figure 3.5 State of Development of the Monterrey, S. Domingo and Yaque del Norte WFs



3.2. Adequacy of Execution Arrangement

3.2.1. Organizational, Technical and Financial Capacities

The organizational structure presented in Section 2.5 and depicted in Figure 2.2 adequately reflects the manner in which the project was managed and coordinated at all levels: regional, country, and city or watershed. This structure was used from the early stages of project execution and no significant modifications or enhancements were introduced. At the end of the fourth year, TNC was employing 15 people (1.7 per fund on average) in various roles of technical assistance and administrative support¹⁷. This evaluation believes that the structure, although seemingly large, was barely adequate and therefore would be difficult to simplify due to the number of funds involved and their geographic dispersion. Given the weaknesses identified in the studies (see Section 3.2.5), this report concurs with the MTE in that a much closer degree of interaction and specialized assistance is required between the “*TNC WO Technical and Administrative Support*” unit in the organizational chart and the Water Fund Secretariats. This evaluation also believes that the administrative supervision provided by IDB staff assigned to this operation was adequate, but that perhaps more technical and environmental overview and support, from IDB country staff, would have been beneficial.

The project’s Operations Manual defined the execution period --March 16, 2011 to March 16, 2016-- and described the WF’s implementation phases, from fund prefeasibility, through design and negotiation, to operation and maturity. The Manual also explained the accounting and reporting systems, procurement procedures, disbursements agreements, financial management systems, and internal controls. It also defined institutional responsibilities. Procurement processes were to be conducted in a manner that allowed competition, following private sector procedures, which stipulated acquisition methods for small purchases (under US\$25,000), as well as intermediate and large (over \$100,000). All contracts were subject to an ex-post review by the Bank. At the individual fund level, the Manual described the governance structure, which was typically comprised of a Board of Directors, a Technical Committee, a Technical Secretariat and a financial institution. The Manual also listed a sample of eligible projects and of the entities allowed to receive funds. Lastly, the Manual presented a recommended template for the Water Fund’s Operations Manuals, stipulating all items to be included.

¹⁷ According to the Mid-Term Evaluation, of the 15 people employed part-time and full-time by TNC, nine were paid from IDB/GEF resources. Of these nine, six were full-time positions. These 15 positions were equivalent to approximately 10.7 full-time positions, but this value varied depending on project needs. Other areas of TNC (Legal, Finance and Operation Departments) provided sporadic support and technical assistance to the funds; this support was generally not included in the operation’s budget.

The project's Operations Manual also stipulated that each WF should prepare Conservation and Financial Plans to support its decision-making process. These two documents could be combined into a single document, the fund's Strategic Plan. This review found that in most cases these documents are still weak and should be improved, given their importance as guiding instruments for the WF Secretariats. Support from the TNC central coordinating unit would be desirable.

With respect to the financial resources allocated to execution, this review found no noteworthy limitations (See Section 3.2.4). It is possible, however, that if a more comprehensive approach were adopted with respect to studies (Section 3.2.5), a greater amount of resources would be required in similar future operations.

3.2.2. Use of Results Matrix as a Management Tool

The Results Matrix was of critical importance in managing and supervising project's activities and progress. It became the basis for the periodic progress reports prepared and submitted by TNC. Its three outcomes and thirteen outputs, selected during the operation's design to reflect the principal activities at various stages of fund development, facilitated tracking and verification of outcomes and outputs. It was also useful in detecting delays in execution from year to year, as pointed out by the Mid-Term Evaluation. For this very reason, in future operations the selection of indicators should take into account the observations listed in the section that follows.

3.2.3. Analyses of Indicators and Targets

As explained in Section 3.1.1.3, the Results Matrix indicators were modified in 2012 with the stated purpose of facilitating tracking and verification, detecting delays in execution, and adopting corrective measures. **Outcomes** that originally specified *watersheds surface areas being protected* by fund activities (in hectares) or *sediments retained* by conservation actions (in tons/year), were eliminated and replaced with outcomes that stipulated the number of water funds being *properly established*, *financially strengthened*, or *technically improved*. This decision, in retrospect, had the unintended effect of leaving out measures of the expected benefits to the watersheds. Similarly, **outputs** that reflected *increased private and public funding* to pay for conservation projects, or that specified the *number of partners engaged* in watershed management were replaced with indicators that reflected operational components of the fund's design and development process. The modifications served the purpose of focusing managerial attention on getting the water funds off the ground but overlooked the need for indicators that conveyed the ultimate objective of protecting terrestrial and freshwater ecosystems. It should be mentioned that in spite of the modifications introduced to the Matrix and given the significance of the outcome and output indicators removed, TNC continued keeping track of the

progress achieved on them. The following table illustrates points that should be considered in future operations.

Table 3.5 Outputs and Outcomes Review

Indicator	Comments
Outcomes	
1) Seven water funds established	The end-of-project target was defined as seven instead of nine . This seemed to imply that in two cases the process might have been expected to fail or to take longer than the five-year execution period. No explanatory information was found for this numeric target. The means of verification indicated that a Board Member Agreement or MOU must have been signed, and that the Operation Manual must have been endorsed by the Board members and approved by the IDB for the fund to be considered <i>established</i> . These conditions could be improved to better reflect what an <i>established</i> water fund should be. Aspects such as having a functioning Secretariat, an actionable conservation strategy, the required amount of financial resources, and the clear capability to start investing in the watershed, should also be considered.
2) Five water funds financially strengthened	The end-of-project target was defined as five instead of nine . This reflected the recognized legal limitations of establishing trust funds in Brazil for this purpose. The project was able to strengthen six funds, exceeding its original target.
3) Nine water funds with improved technical capacity	There were three ways for a fund to meet this target: (i) having adopted monitoring protocols, (ii) having incorporated the results from feasibility studies into their planning processes, or (iii) having received financial support to its Technical Secretariat. The latter required a much lower or ambiguous level of fund development and therefore did not seem to constitute an adequate way to measure improvement.
Outputs	
1) Nine water funds with technical assistance provided	Used during the first two years as a mechanism to help guide and activate the fund's design and development process.
2) Eight workshops conducted	Although a useful and necessary mechanism to disseminate and exchange information among specialists and relevant stakeholders (if well attended and directed), this output does not seem to constitute an adequate means of measuring progress or fund consolidation. Also, it was not clear why only eight and not nine were stipulated.
3) Nine funds with communication materials completed	A useful output.
4) Nine technical (hydrological) studies completed	This and the following three outputs reinforced the erroneous idea that these studies should have been conducted separately. It may be more efficient, in most

	cases, to carry out the hydrology studies in conjunction with the climate change analyses, and even with the socioeconomic studies. Prepared jointly, these studies are more likely to provide relevant, comprehensive and actionable recommendations to the funds' Technical Secretariats.
5) Five legal / institutional studies completed	Five instead of nine studies were set as the end-of-project target due to the fact that some funds had already made progress on this topic or could get external financing. The depth and complexity of the studies should vary greatly from one watershed to another.
6) Seven socio-economic studies completed	(See comment on output # 4 above)
7) Eight climate change analyses developed	These studies conducted in an isolated manner delivered conclusions and recommendations of little practical value to the funds' Technical Secretariats.
8) Four water fund launching events conducted	Relevant for its significance. However, it created a risk of conducting these events prematurely, when the crucial fund elements had not been completely defined, thus creating expectations difficult to satisfy. Therefore, the objective and scope of this activity should be carefully defined in accordance with the WF's current specific needs.
9) Four demonstrative conservation projects funded	This was the only output that indicated that the fund had moved towards an operational phase. However, the end-of-project target --four conservation projects-- seemed too modest.
10) US\$1.9M of endowment capitalized	A relevant and measurable output.
11) Three hydrological monitoring protocols developed	This and the following output should be part of a well-developed Strategic Plan. The fact that only three protocols were stipulated seemed to imply that the process might have been expected to take longer than the five-year execution period, that other sources of funding could be used to prepare these protocols, or that work could proceed without these protocols.
12) Seven socio-economic monitoring protocols developed	(See comment on output #11 above)
13) Seven Technical Secretariats financially supported	A necessary and relevant output.

3.2.4. Project Efficiency

This section assesses the use of the operation's financial resources, its cost effectiveness, and any delays in implementation that could have affected its effectiveness.

3.2.4.1. Resources Utilized

At the end of the five-year execution period, the project had used 100% of the resources allocated to the various outputs (See Table 3.6). This result is in sharp contrast with the situation found at the end of four years, when, according to the Mid-Term Review, only 46% of the grant resources had been disbursed, as can

be observed in Figure 3.6. This situation changed markedly during the following year, due mainly to endowment capitalization. This review concurs with the Mid-Term Evaluation in that overall progress was initially impacted by discussions and renegotiations that took place in late 2011 and early 2012, which led to the signature of an Amendatory Agreement in June 2012 and to disbursement eligibility on August 31, 2012. The differences observed on Table 3.6 between original budgeted amounts and actual expenditures are in general minor, and to be expected in an operation of this nature. However, this review would like to point out that the amounts utilized for studies (outputs #5, 6, 7 and 8) and for demonstrative conservation projects (output #10) were comparatively lower than anticipated. Other outputs, such as communication materials (output #4) received slightly larger amounts than predicted. The latter was in great measure due to the demands of the Third Biennial Water Funds Meeting held in Bogotá between June 15 - 17, 2016.

Table 3.6 Actual Use of Project Financial Resources

Outputs	Original Budget from Results Matrix	Actual to End of Five-year Execution Period	% of Resources Used
1. Technical assistance to water funds	1,040,858	1,430,980	137
3. Workshops	55,589	54,167	97
4. Communication materials	228,463	305,509	134
5. Technical (hydrological) studies	266,953	190,079	71
6. Legal / institutional studies	137,896	95,050	69
7. Socio-economic studies	210,000	207,726	99
8. Climate change analyses	145,000	112,866	78
9. Water fund launching events	33,193	27,046	81
10. Demonstrative conservation projects	251,086	127,931	51
11. Endowment	1,900,000	2,010,951	106
12. Hydrological monitoring protocols	105,000	101,321	96
13. Socio-economic monitoring protocols	76,250	58,120	76
14. Technical Secretariats financially supported	524,712	253,060	48
Total	4,975,000	4,974,806	100
2. Project management	935,000	993,732	106
Project final audit	90,000	40,000	44
Grand total	6,000,000	6,008,538	100
Percentage (%)	100	100	

Figures 3.7 and 3.8 show the distributions of resources among outputs for both the original budget and the actual expenditures. As stated, the differences are generally minor, except for outputs #10 (*demonstrative conservation projects*) and #14, (*Technical Secretariats financially supported*) where the actual allocation was about half of the budgeted amount.

Figure 3.6 Cumulative Use of Platform Financial Resources

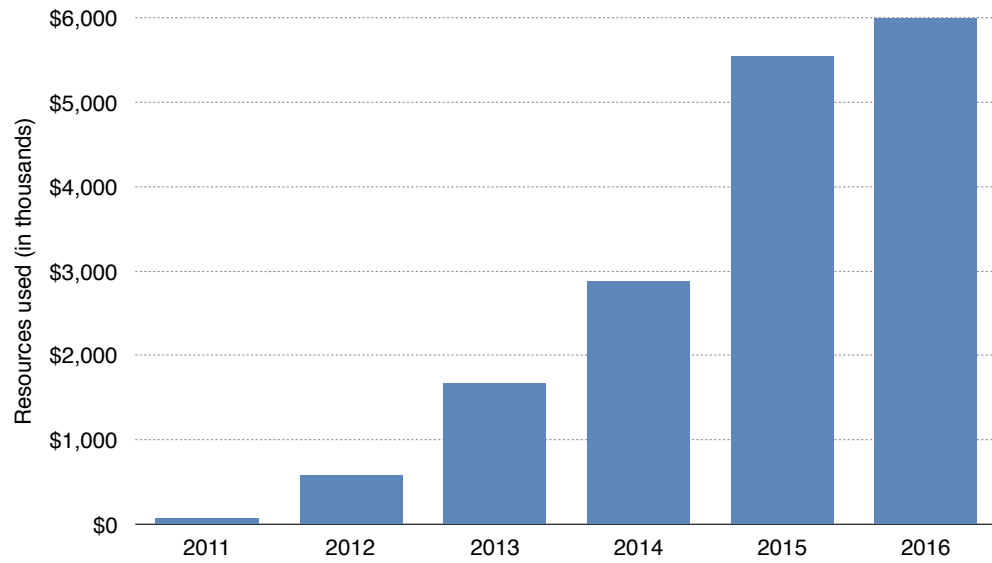


Figure 3.7 Original Allocation of Platform Resources by Output

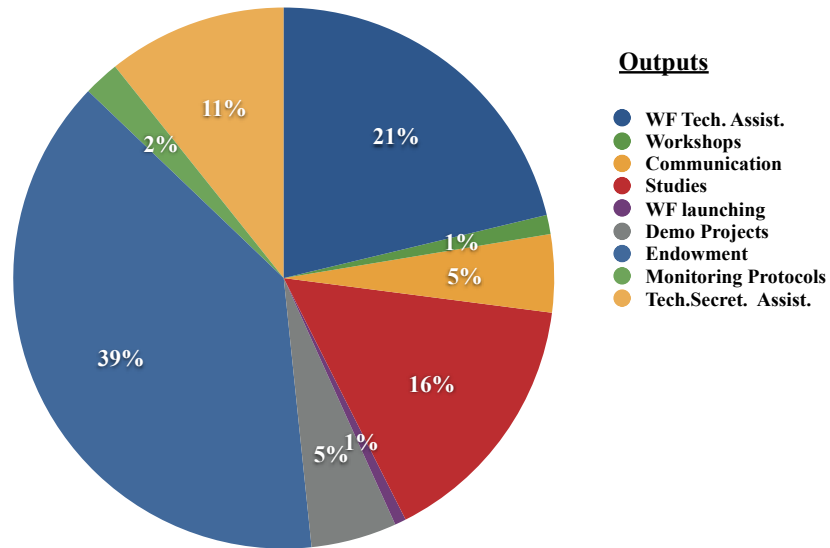


Figure 3.8 Actual Use of Platform Resources by Output

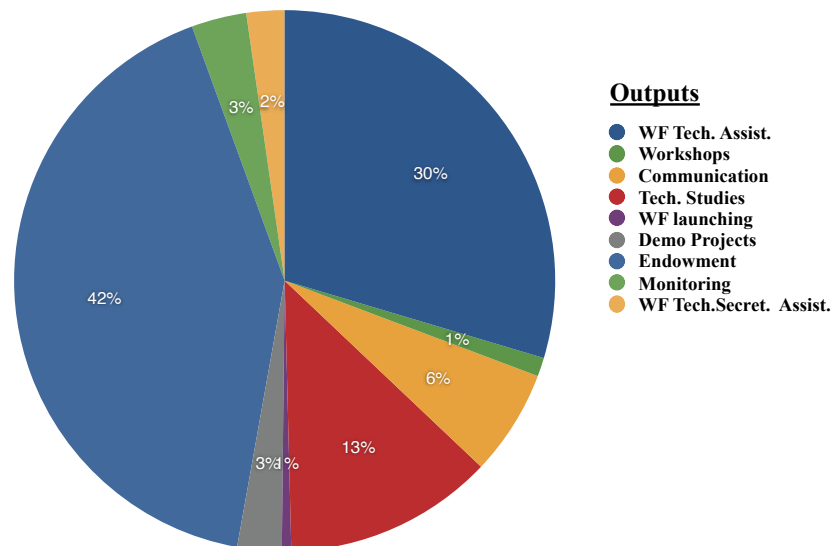


Table 3.7 shows the actual allocation of the operation's financial resources to the various outputs and as percentages of the total amount. These are shown by country and by fund, as well as for centrally provided technical assistance and overall management. The latter utilized nearly 17% of the total, or nearly US\$1.0 million, in harmony with what had been initially planned.

Table 3.7 Actual Use of Project Financial Resources by Country and Fund

Country Water Fund	Outputs Supported*	Amount (US\$)	% of resources used
Brazil		565,414	9.4
Technical assistance	1	265,845	4.4
Espirito Santo	8, 10	84,317	1.4
Camboriu	3, 5, 6, 7, 12, 14	111,384	1.9
Palmas	3, 5, 6, 7, 8	103,868	1.7
Colombia		823,663	13.7
Technical assistance	1	17,348	0.3
Bogota	7, 8, 11, 13, 14	388,233	6.5
Medellin	3, 8, 9, 11, 13	364,819	6.1
Santa Marta	1, 4, 7, 8	53,262	0.9
Dominican Republic		1,016,228	16.9
Technical assistance	1	215,769	3.6
Yaque del Norte	3 - 14	405,642	6.8
Santo Domingo	3 - 13	394,817	6.6
Mexico		799,976	13.3
Technical assistance	1	222,971	3.7
Monterrey	7, 8 - 14	577,005	9.6
Peru		1,025,446	17.1
Technical assistance	1	285,664	4.8
Lima	3 - 8, 11, 13, 14	739,781	12.3
Latin America		1,777,812	29.6
Water funds' operations	1, 3, 4, 9, 12	744,080	12.4
Project management	2	993,732	16.6
Final audit		40,000	0.7
Total		6,008,538	100

* **Output numbers:** 1 technical assistance; 2 project management; 3 workshops; 4 communication material; 5 hydrological studies; 6 legal/institutional studies; 7 socioeconomic studies; 8 climate change studies; 9 launching events; 10 demonstrative projects; 11 endowment capitalization; 12 hydrological monitoring protocols; 13 socioeconomic monitoring protocols; 14 support to Technical Secretariats.

The use of resources showed that on average US\$845,000 were used per country and that the smaller amount was spent in Brazil (US\$565,414), highlighting the fact that no endowment capitalization (Output #11) was provided in this country. The highest amount was disbursed to Peru (US\$1,025,446), indicating that this was the most supported WF from a financial standpoint. It is also worth noting that technical assistance by country (Output #1) varied widely, the highest being Peru, with US\$285,664, and the lowest Colombia, with US\$17,348.

From a cost-effectiveness point of view, at the WF level, it is of interest to compare the operation's financial resources used to support the design and development of each WF. This is attempted in Table 3.8 (a), under the column labeled "*Design and Development Support*", from which endowment capitalization has been removed to more directly compare the platform resources spent on outputs related to fund preparation and design. The values obtained, shown in the table and on Figure 3.9, indicate a lot of variation around an average of US\$121,218 per fund. This variation did not seem to be correlated with watershed size or complexity, but rather with local legal/institutional conditions, stakeholder financial support, and the time spent on the developmental phase. A special case is the Palmas WF, which as explained in Section 3.1.1.3, had its activities provisionally suspended due to unfavorable institutional conditions.

Table 3.8 (a) Comparative Use of Project Resources by Fund (US\$)

Water Fund	Endowment Capitalization	Design and Development Support	Total Direct Support	Technical Assistance by Country
Espirtu Santo		84,317	84,317	265,845
Camboriu		111,384	111,384	
Palmas		103,868	103,868	
Bogota	297,493	90,740	388,233	17,348
Medellin	340,000	24,819	364,819	
Santa Marta		53,262	53,262	
Yaque del Norte	214,820	190,822	405,642	215,769
Santo Domingo	278,277	116,540	394,817	
Monterrey	434,687	142,318	577,005	222,971
Lima	445,675	294,106	739,781	285,664
Total	2,010,952	1,212,176	3,223,128	1,007,597
Average per fund	335,159	121,218	322,313	201,519

It is also of interest to note and compare the financial resources contributed by private and public partners to the WFs. These resources, shown in Table 3.8 (b), were mainly used to finance: (i) basic studies, as in the case of Medellin; (ii) demonstrative conservation projects, as in the cases of Santo Domingo and

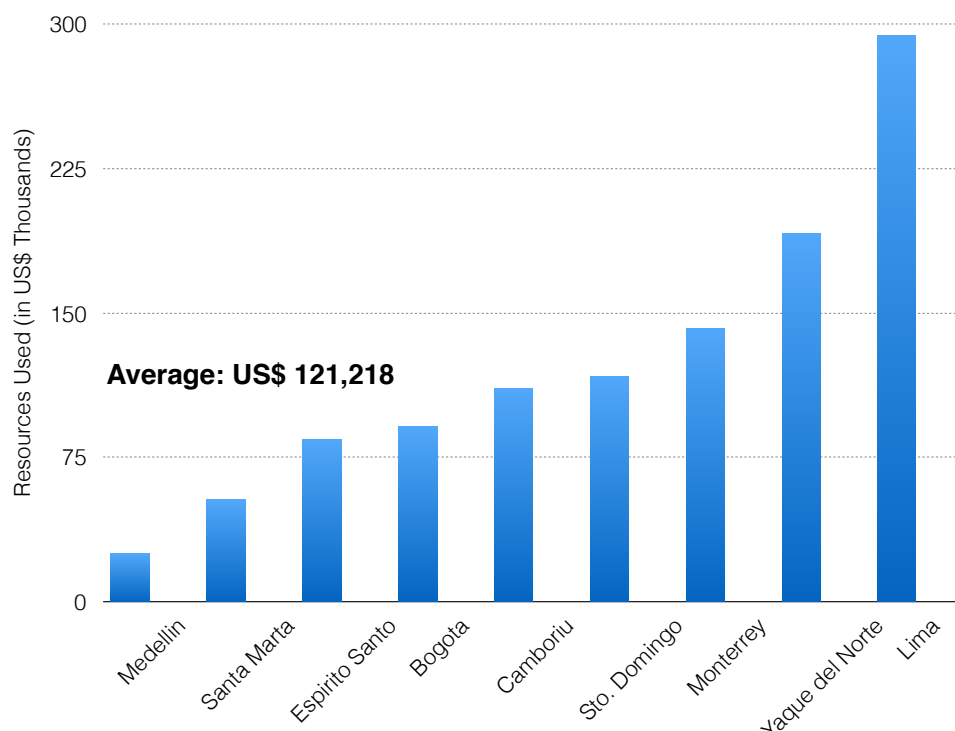
Yaque del Norte; and (iii) regular conservation projects, as in the cases of Espirito Santo and Medellin. It should be noted, however, that the total amount of resources contributed, as reported by TNC, was US\$42.7 million. This amount is markedly influenced by Espirito Santo's state fund FUNDAGUA, which collected US\$29.5 million of royalties from oil and natural gas industries (see Appendix 2)¹⁸. Subtracting that amount, the total contributions from private and public sources would have reached US\$13.5 million, which by itself is a figure close to the initial target of US\$14 million. Therefore, it can be safely concluded that the original target amount was achieved and surpassed.

Table 3.8 (b) Resources Contributed by Private and Public Partners

Water Fund	Private Entities	Public Entities	Total
Espirtu Santo		29,507,235	29,507,235
Camboriu	49,000	1,825,300	1,874,300
Palmas	190,343		190,343
Bogota	277,601	401,217	678,818
Medellin	960,989	1,615,907	2,576,896
Santa Marta	63,291		63,291
Yaque del Norte	411,565		411,565
Santo Domingo	568,984		568,984
Monterrey	6,017,424		6,017,424
Lima	826,002		826,002
Total	9,365,199	33,349,659	42,714,858

¹⁸ FUNDAGUA was established in 2008, before the TNC intervention in the state, to collect royalties (3%) from the oil and natural gas industries, which were to be used to finance water resources and watershed protection activities. This evaluation was unable to obtain information on the resources that can be directly attributed to the activities conducted by TNC under this project.

Figure 3.9 Platform Resources Allocated to WF Design and Development



3.2.4.2. Results Obtained

The previous paragraphs indicate that the utilization of financial resources by output adhered in general terms to the initial allocation. The exceptions noted, such as the slight increase in funding for communication materials and the smaller amounts spent on outputs related to studies to support Technical Secretariats, and on demonstrative conservation projects, can be explained by the demands of the biennial meeting held in Bogotá in 2016, in the case of communication expenses, and by the contributions made by WF participants in the case of studies and demonstrative conservation projects. On the allocation of resources by fund a greater variability was observed, although this was not an aspect that had initial guidance, thus leaving it to the needs encountered during the execution phase. Based on these observations, this review considers that from an efficiency point of view, the operation has thus far been satisfactory (S) in achieving the expected outcomes and objectives. As expressed before, the WF concept constitutes a long-term proposition, whose success will depend as much on wise management towards the future, as well as on the solidness of its legal, institutional, and technical foundations.

3.2.5. Aspects to Consider in Future Water Fund Design Studies

As part of the Mid-Term and Final Evaluations, a review of a fairly representative sample of hydrological, socioeconomic, legal-institutional, and climate change studies, at various funds, was conducted¹⁹. From these reviews it has been concluded that, in future attempts to promote proper WF design, three critical aspects would help to improve the quality and usefulness of the studies: a comprehensive watershed analysis, an explicit recognition of modeling limitations, and a delineation of practical and actionable recommendations. These topics are summarized below.

3.2.5.1. *A comprehensive watershed analysis*

The Platform's Results Matrix inadvertently predetermined that six different studies per fund (outputs) had to be conducted. This created an excessively fragmented approach for analyzing the watersheds' biophysical and socioeconomic characteristics and the legal/institutional setting both upstream and downstream of the target basin. This review, as the MTE, considers that the development of a full understanding of the watershed and an identification of the potential value added by the fund's investments, can be better acquired through a holistic approach of the existing problems and potential solutions. Although it is possible to conduct separate and specialized studies, they would have to be followed by an integrating task in which unconnected conclusions are combined and transformed into operational directives. This, however, requires the availability of a sufficiently qualified team of specialists to conduct this gathering task.²⁰ Thus, in future operations, attention should be given to the possibility of contracting comprehensive studies that incorporate all relevant biophysical, socioeconomic, financial and institutional aspects under one contract. When appropriate, these studies should also include other relevant issues, such as in-depth analyses of the manner in which the water utilities collect, store and treat drinking water. This is especially necessary when the fund seeks to demonstrate economic benefits to the utility from lowering treatment costs and increasing base flows. It should be noted that this general recommendation might require additional funding to be allocated to these studies, especially in the case of large and complex watersheds. It will also require extra efforts to prepare proper TORs and to evaluate technical and economic proposals from competing consulting firms.

¹⁹ The sample included six climate change studies, three hydrological studies, four socio-economic studies, two legal/institutional studies, and one hydrological monitoring protocol. Specific examples of the problem encountered were provided in Section 3.2.5 of the Mid-Term Review.

²⁰ This fragmentation also created a large number of individual consulting contracts that had to be prepared, coordinated, supervised and approved per fund. This review estimates that more than 60 contracts were managed and overseen by the project.

3.2.5.2. *Recognizing the modeling tools' limitations*

The use of models to simulate watershed responses to changes in land use is an extremely useful undertaking, but one that should be approached with care and discretion. Models augment the comprehension of biophysical processes and help visualize hypothetical future scenarios, but are not a substitute for a scientific understanding of the natural processes at work. Thus, the decision to run models, such as SWAT, RIOS, InVEST, FIESTA, WEAP, etc., to specific local conditions, should carefully consider the models' strengths and weaknesses, input data requirements, resolution level, etc. Only specialists, familiar with their algorithms and basic assumptions, should run and interpret the model's results and ascertain the level of uncertainty in those results. This is especially important, since it is not uncommon to encounter limited, discontinued and unreliable data on the key variables needed to define meteorological variability, stream flows, soil characteristics, land use, and vegetation cover.

3.2.5.3. *Delineating Practical and actionable recommendations*

Most of the studies reviewed did not produce sufficiently specific and operational results, conclusions and recommendations. The likely reasons for this are: (i) insufficiently defined objectives, scope, and deliverables in the terms of reference, (ii) inappropriate supervision while the study was being conducted, and/or absence of a specialized review before final approval. The contracted amounts paid to conduct the studies were also on the low-end of the spectrum and could have impacted the depth and breadth of the work carried out. The lack of solid studies also had an impact on the preparation of hydrological and socioeconomic monitoring protocols, which were not prepared to the level of detail and specificity required. Solid studies are also necessary to properly assemble *conservation and financial plans*. Thus, it cannot be over-emphasized that these basic studies constitute essential starting points to establish the water funds' base lines, priorities, preferred investments, cost estimations, and anticipated results.

3.3. Overall Sustainability and Risks

The assessment of risks to sustainability is based on a review of the institutional, governance, financial, environmental, and sociopolitical aspects that could pose obstacles to the individual WF activities and the continuation of successful results into the future²¹. These potential risks are both exogenous and endogenous. The TNC Progress Report, of Aug. 2016, identified three potential risks generally applicable to all WFs: a governance risk due to absence of local

²¹ Sustainability is understood as the likelihood of continued benefits after the project ends (GEF – Guidelines for GEF Agencies in Conducting Terminal Evaluations. 2008)

institutions inclined to participate in the WFs, a financial risk caused by lack of partners willing to invest, and an environmental risk ascribed to insufficient scientific justification on the benefits of green infrastructure. All three were considered to have low probability of occurrence. The following sections expand these considerations.

3.3.1. Institutional Aspects and Governance Risks

From an institutional and governance perspective, sustainability depends on a solid legal framework, an adequate administrative structure, clear objectives and procedures, and a transparent monitoring and accountability system. In general, most funds have set up, with various degrees of consolidation, a managing structure led by a Board of Directors that oversee principal activities and priorities, and administered by Technical Secretariats in charge of day-to-day operations (see Appendix 5).

The Boards of Directors are particularly critical, as they constitute the means by which active stakeholders, an array of private companies and public institutions, feel adequately represented. Ample and diverse representation in the Boards is a more desirable condition. Of special importance is the participation of water utilities, perhaps the most critical users, and of regional environmental agencies in charge of watershed protection. The main observations on specific situations are summarized below:

- The active participation of water utilities was clear in Medellin, Camboriu, and Yaque del Norte, less so in Lima, Monterrey and Santo Domingo, and uncertain in Bogota, Espirito Santo, and Santa Marta²². The case of Monterrey is somewhat special, as the utility has played a limited role up to the present time, partly in keeping with the state of development of the WF, but is expected to grow in the future. The case of Camboriu is more unique due to the fact that EMASA, the water utility, plans to internally manage what would be considered WF activities. Thus, there is a need to consolidate institutional mechanisms that would assure active participation of other WF partners.
- The participation of environmental government bodies, jurisdictionally in charge of watershed protection and ecosystem regulation, was also uneven, being especially noticeable, for their level of involvement, in the cases of Espirito Santo, Medellin and Monterrey. The case of Espirito Santo is unique as this is basically a state government fund administered by a state environmental secretary.

²² As explained in Appendix 2, the Bogotá Water Utility has not been actively involved since the WF was first launched in 2009. In Espirito Santo, CESAN, the major state water utility, has not participated in Reflorestar. Finally, METROAGUA (Santa Marta) has shown some interest but faces an uncertain future due to the fact that its contractual period ends in April 2017 and it appears that the concession will not be renewed.

- Private sector participation was also prominent in Medellin and Monterrey, less so in Lima, Yaque del Norte, Santo Domingo, and Bogota, and very limited or non-existent in the two Brazilian funds. The case of Santa Marta is uncertain due to its early state of development.

3.3.2. Financial Risks

The likelihood of financial and economic resources being available for conservation and restoration projects, as well as WF management, is a crucial condition for long-term sustainability. This evaluation identified different degrees of progress towards financial sustainability. The following situations are worth noting:

- Limited growth of the endowments has been observed, despite the capitalization of six of them with project resources. This could be partly due to the recentness of the actual financial transfers. Considering the private sector contributions pledged, or actually made, Monterrey and Medellin display a more favorable situation.
- The Espirito Santo fund, known as *Reflorestar*, exhibits relatively strong financial security due to State legislation approved in 2008, which allocates 3% of oil and gas exploitation royalties to environmental protection and water resources. However, this flow of resources could become insufficient if the prices of these commodities in international markets decrease significantly.
- The Camboriu WF also possesses a steady stream of resources given the legal requirement to invest 1% of its revenues in watershed protection, which is supported by water utility regulator. The probability of expanding those resources, to include private donations, looks limited due to the current institutional set up. However, the need for additional resources has not been clearly determined.
- The Lima WF is struggling with legal restrictions to have access to the funds that SEDAPAL has set aside for watershed protection under a regulatory requirement. This requirement, resulting in part from the advocacy of the WF partners, constitutes a positive development for watershed protection into the future. Mechanisms are currently being sought to expedite the allocation of these resources to basin conservation projects.

3.3.3. Sociopolitical Risks

From a sociopolitical perspective, security and stability derive from: a strong sense of ownership on the part of all active stakeholders, ample participation of private and public entities, and public awareness and understanding of the need

for watershed protection. There are also exogenous circumstances more difficult to predict. The following cases are highlighted:

- Private companies can more easily modify previously stated goals, especially in relation to activities that are not part of their core productive layout, such as those that fall under the category of social responsibility. This seems to be the case of the Palmas WF, where Odebrecht Ambiental suspended the activities related to the WF. Excessive dependence on one private company in this case proved problematic. There are, however, examples of steady and continued support from private companies that have been clearly committed to watershed protection.
- On the other hand, water funds that are predominantly public can be negatively or positively affected by short or medium-term political decisions unrelated to longer-term WF objectives. The Espirito Santo case is an example of the juxtaposition and potential conflicts of interest between short-term political objectives, set by entering administrations, and long-term environmental policy goals. The current Reflorestar targets are only set for 2018.
- It is still early in the operational phase of most funds to properly evaluate the sense of ownership displayed by stakeholders and beneficiaries. This critical attribute will be more evident once the funds shift into routine operation and start investing on conservation projects. During the interviews conducted, the Medellin, Espirito Santo and Monterrey funds conveyed the greatest degree of stakeholder engagement.

3.3.4. Environmental Risks

Considering the complexities of both terrestrial and aquatic ecosystems, the major environmental risks derive from underperforming WFs in relation to preset quantitative and qualitative targets. However, not all WF have predicted long-term quantitative improvements in water quality and water flows that would be difficult to demonstrate, and to attribute to WF activities, given the natural variation in these parameters and potentially detrimental actions by others. The Mid-Term Evaluation discussed this issue, given the lack of reliable data for use in predictive models and the weaknesses identified in several hydrological studies.

On a more practical level, most of the agreements or contracts signed with property owners are for relatively short periods of time, 3, 5 and up to 10 years in a few cases, thus creating a level of uncertainty on the renewal and durability of these commitments to carry out and maintain environmental friendly activities in their respective parcels. This review considers that the necessary technical know-how could be improved by periodic reviews of performance and an identification

of challenges to be adequately met. The Technical Advisory Committees, which most WFs have not created, would be useful in this regard.

3.3.5. Overall Risks to Outcome Sustainability

This evaluation believes that the water funds supported by the project have a moderate likelihood of becoming successful as financial and technical mechanisms for transferring resources to conservation and restoration activities in their respective watersheds. As explained in the preceding sections, when assessing the various types of risk that could jeopardize water fund sustainability, it is clear that each WF faces different circumstances and therefore different likelihoods of prolonging and maintaining its beneficial results into the future. In order to assess the sustainability of the project as a whole, the rating of the individual funds was taking into account, as shown in Table 3.9, in order to present the “moderately likely” (ML) sustainability rating.

Table 3.9 Sustainability Rating

Type of risk	Likelihood of occurrence				Project Rating
	Likely (L)	Moderately likely (ML)	Moderately unlikely (MU)	Unlikely (U)	
Institutional	Medellin Espirito Santo Monterrey Yaque del Norte Lima Bogota	Santo Domingo Camboriu Santa Marta			ML
Financial	Medellin Espirito Santo Monterrey Camboriu	Bogota Lima Yaque del Norte Santo Domingo Santa Marta			ML
Sociopolitical	Medellin Monterrey Lima Espirito Santo	Bogota Yaque del Norte Santo Domingo Santa Marta Camboriu			ML
Environmental	Medellin Bogota Espirito Santo Monterrey Yaque del Norte Santo Domingo Camboriu Lima Santa Marta				L
Overall					ML

3.4. Design and Implementation of Monitoring and Evaluation Systems

This evaluation reviewed monitoring and evaluation (M&E) responsibilities, as well as the instruments designed to carry them out. As explained in Sections 3.2.1 to 3.2.3, the operation's execution arrangement, results matrix, and output and outcome indicators, constituted an adequate system to track implementation progress and oversee results. As the project's executing agency, TNC collected and reported the information from each water fund and consolidated it into periodic reports submitted to the IDB. To facilitate M&E tasks, Annual Operating Plans (AOP) were developed, that were reviewed and updated each year. Periodic progress packages were prepared, which included project execution plans (PEP), annual budgets, and updated procurement plans. TNC also maintained archives of the documents being produced by all funds. This review did not detect significant shortcomings in these procedures, nor more expeditious ways of conducting and simplifying them. This review also believes that the M&E activities were adequately budgeted at the outset. For these reasons, the quality of M&E design and implementation are rated as satisfactory (S). This review also thinks that the implementation team showed reasonable capacity to adapt to changing circumstances, such as allowing the Santa Marta WF to become part of the project. This decision required close coordination between TNC as executing agency and the IDB as supervising institution.

As part of the initial agreements, the operation included a mid-term evaluation (MTE) and a final evaluation (this document). The MTE, conducted between October 6th, 2014, and May 29th, 2015, when the four-year outputs were being attained, constituted a useful base upon which to review the difficulties and/or achievements of the following one and one-half years of continued activity. Thus, this evaluation incorporates most of the MTE's findings and, in a way, constitutes a reevaluation of those situations and an extension of that assessment when necessary. As part of the MTE, all nine funds included at the time were visited, including tours of demonstrative projects at four watersheds.

3.5. Catalytic Role

A large number of cities in Latin America realize that their valuable water sources are under increasing threat due to deforestation, agricultural expansion, livestock practices, mineral exploitation, urban growth and increasing competition.²³ Thus, the opportunities for expanding the water fund concept to other watersheds are undeniable. The challenge is to properly select promising watersheds for intervention. This selection should be based not only on the

²³ An example of the wide interest on the WF concept is the identification of "25 Cities for Investing in Green Infrastructure" developed jointly by Science for Nature and People (SNAP), Natural Capital Project and TNC. TNC has identified more than 40 cases seeking the creation of WFs.

urgency of the watershed condition, but also on a judicious consideration of the investments potentially needed to rectify or mitigate the problems identified, the level of involvement of critical players, the probable contribution that the water fund could make, and the availability of qualified local leadership. This evaluation believes that setting up water funds is a laborious and time-consuming process that should be supported only in those cases where there is clear interest from local stakeholders, willing and able to provide the indispensable leadership, and where the legal and financial conditions for success appear favorable.

4. Conclusions and Recommendations

4.1. Overall Evaluation Findings, Results, Impacts and Sustainability

Compliance with outcomes. In general terms, it can be stated that the operation reached the end-of-project targets specified for the three *outcome indicators*:

- (i) Seven water funds were *established* as initially planned and as indicated by the means of verification set forth in the original Results Matrix.
- (ii) Six water funds were *financially strengthened* through *capitalization of their endowment* using project resources. This exceeded the original target, which had been set as five.
- (iii) Nine water funds had their *technical capacity improved*, in agreement with the original target. .

Compliance with outputs. The operation put in place various critical components at each of the nine water funds, as measured by the predefined operational *outputs*. Of the thirteen *outputs* initially specified, eleven reached their numeric targets, while the remaining two were generally close to attaining their intended goals. The overall completion level was 96%.

Project relevance. Given the environmental stresses suffered by watersheds located close to large urban areas, the relevance of the WF concept is without question. At the country level, this review found that in almost all cases the entities in charge of environmental protection were actively supportive of the efforts to set up water funds and in some cases direct participants as partners.

Water Funds' current state. Six criteria were assessed to provide a simplified evaluation of the Fund's current state of development: (i) legal establishment; (ii) stakeholder participation; (iii) governance; (iv) financial robustness; (v) conservation strategy; and (vi) initial investments. The last three were clearly the ones where more progress and consolidation is still needed. Of the ten funds, the more consolidated were Espirito Santo and Medellin. Santa Marta is at an early stage of development.

Resources utilized. The operation used 100% of the resources allocated to its various activities, with minor differences between the original amounts and actual expenditures. The amounts utilized for *studies* and for *demonstrative conservation projects* were slightly lower than originally estimated due to the contributions made by WF participants to finance some of these activities. The amount of resources used yielded an average of US\$845,000 per country

Additional contributions. The operation's funding used to directly support the development of each WF showed an average of US\$121,218 per WF. The variability observed did not correlate with watershed size or complexity, but rather with local legal/institutional conditions, stakeholder financial support, and the time spent on the developmental phase. In most of the WFs the contributions from private and public WF partners were used to prepare basic studies, conduct demonstrative conservation projects, or carry out regular conservation projects. The total amount of resources contributed, US\$42.7 million, was markedly influenced by Espirito Santo's FUNDAGUA, which collected US\$29.5 million in oil and natural gas royalties. Subtracting that amount, the total contributions from private and public sources would have reached US\$13.5 million, which by itself is a figure close to the initial target of US\$14 million. Therefore, it can be safely concluded that the original target amount was achieved and surpassed.

Overall results. In terms of effectiveness, relevance, and efficiency, this review rates the project's performance as "satisfactory" (S). Given the long-term nature of the work and its expected impacts, it is difficult to fully assess the potential for success at each of the various water funds.

Sustainability. In spite of the difficulties in adequately assessing sustainability, this evaluation believes that the water funds supported by this operation have a moderate likelihood (ML) of becoming successful.

4.2. Execution Problems Encountered and Aspects that Need improvement

Definition of an *established* water fund. A more operational definition should include aspects such as a functioning Secretariat, a well-developed conservation strategy, a minimal amount of financial resources, to indicate a realistic capacity to successfully start investing and monitoring activities in the watershed.

Output indicators. Six separate outputs were included in the Results Matrix to account for various topics that needed to be studied in each fund: hydrological, socioeconomic, legal/institutional, climate change and monitoring protocols. This separation conveyed idea that the studies were to be conducted separately. Moreover, the monitoring protocols could also be a part of this comprehensive approach. Prepared jointly, these studies would more likely provide coherent, specific and actionable recommendations to the WFs' Technical Secretariats.

Definition of an *established* water fund. A more operational definition should include aspects such as having a functioning Secretariat, an actionable conservation strategy, a minimal amount of financial resources, and a realistic capacity to successfully start investing and monitoring activities in the watershed.

Quality and scope of design studies. Considering the weaknesses identified in various WF design studies, this review recommends a closer degree of

interaction and specialized assistance to the Water Funds Secretariats from the “TNC WO Technical Support” unit. This evaluation would like to recognize that from the recent discussions held during this evaluation, TNC is taking steps to improve this situation.

Level of detail in conservation and financial plans. This evaluation believes that greater emphasis should be placed on transforming the recommendations formulated by the previous studies into comprehensive *conservation and financial plans* that clearly define priority areas within the watersheds and specify the most essential activities to be promoted and supported. In most cases these documents are still weak. This review would also recommend the use of output indicators, more directly related to the preparation of such critical elements, to help guide these emerging organizations into the operational phase.

Preparation and contracting of demonstrative projects. In order to accelerate the process towards WF autonomy and independence, this evaluation recommends earlier direct involvement of WF staff in all tasks related to selecting, contracting, and supervising initial demonstrative projects, which were commonly led by TNC local staff. Thus, the Technical Secretariats should be constituted, properly staffed, and adequately empowered as early as possible during the WF development process to increasingly assume these responsibilities.

The suspension of the Palmas WF. The decision to suspend the work on the Palmas WF appears justified and unavoidable, given the lack of interest recently revealed by the water utility, the most active stakeholder up to that point. This evaluation would recommend that if a future reactivation of the WF were to be proposed, it should be based on a more detailed analysis of the alternative water sources potentially available to the city, and not solely on the protection of the Taquarussu River basin, which has a limited capacity to yield sufficient flows during the drier months of the year.

Inclusion of the Santa Marta WF. The decision to include Santa Marta at such advanced stage of the project’s execution period will require additional assistance from TNC or the [Latin American Water Funds Partnership](#), beyond the operation’s 5-year span, in order to properly deliver the support required.

4.3. Effectiveness of Monitoring and Supervision Arrangements

The project’s execution arrangement and results matrix constituted an adequate system to track progress during the implementation period and oversee results. TNC collected and consolidated information from each WF into periodic reports submitted to the IDB for review. These reports included annual budgets and updated procurement plans. This evaluation did not detect significant shortcomings in these procedures. For this reason, the quality of M&E design and implementation is rated as satisfactory (S). This evaluation incorporates most

of the Mid-Term Evaluation's findings and constitutes an extension of that assessment.

4.4. Lessons Learned

Allocation of financial support per WF. The allocation of project resources by fund showed considerable variability around an average of approximately US\$120,000 per WF. This was not an aspect that had initial specific guidance, thus leaving it to the needs encountered during execution. In some cases, the need for platform resources was greater depending on the time spent setting up the WF and on the availability of local resources, provided by public or private WF participants, to finance studies and other activities. In future operations, this topic could receive greater attention in order to clarify expectations, set reasonable limits, and promote greater local participation.

Continual WF monitoring. Comprehensive independent reviews of the funds should be conducted every two years by small interdisciplinary teams in order to assist the fund's directors with observations and recommendations that only an objective, comprehensive and in-depth analysis could provide. This approach could also benefit the LAWFP as a whole by compiling and documenting good practices, as well as less successful approaches to potentially common problems.

Design Studies. In future efforts to promote proper WF design, the following three critical aspects would help to improve the quality and usefulness of the studies: (i) a comprehensive watershed analysis, (ii) an explicit recognition of modeling limitations, and (iii) a delineation of practical and actionable recommendations.

Conservation and financial plans. Given the challenges encountered by some of the water funds in properly developing strong *conservation and financial plans*, and the complexities of these documents, this evaluation recommends that additional assistance be made available to the Water Funds, beyond the five-year execution period, to assure the existence and enhancing of these plans in all cases.

Numeric targets and anticipated results. Predicted improvements in water quantity and quality resulting from watershed conservation and restoration projects should be solidly supported on rigorous scientific research and on a detailed analysis of local environmental conditions. These analyses should take into full account annual and seasonal variations in water flow and water composition, which make projections and causality relationships difficult to establish. This same degree of care should also be taken when assessing potential economic benefits to downstream users, such as cost reductions in water treatment processes for water utilities.

4.5. Recommendations for Future Operations

Output indicators. Integrate the various types of studies to be conducted (hydrological, socioeconomic, legal/institutional, climate change and monitoring protocols) under a smaller number of outputs in the Results Matrix. Prepared jointly, these studies are more likely provide actionable recommendations to the WFs' Technical Secretariats.

Definition of an *established* water fund. A more operational definition should include aspects such as a functioning Secretariat, a well-developed conservation strategy, a minimal amount of financial resources, to indicate a realistic capacity to successfully start investing and monitoring activities in the watershed.

Quality and scope of design studies. In future efforts to promote proper WF design, three critical aspects would help to improve the quality and usefulness of the studies: (i) a comprehensive watershed analysis, (ii) an explicit recognition of modeling limitations, and (iii) a delineation of practical and actionable recommendations. Considering the weaknesses identified, this review recommends a closer degree of interaction and specialized assistance to the Water Funds' Secretariats from the “*TNC WO Technical Support*” unit or from another qualified source.

Level of detail in conservation and financial plans. Greater emphasis should be placed on transforming the recommendations formulated by the previous studies into comprehensive *conservation and financial plans* that clearly define priority areas and specify the most essential activities to be promoted and supported. This review would also recommend the use of output indicators more directly related to the preparation of such critical documents to help guide these emerging organizations into the operational phase.

Preparation and contracting of demonstrative projects. In order to accelerate the process towards WF autonomy and independence, this evaluation recommends earlier direct involvement of WF staff in all tasks related to selecting, contracting, and supervising initial demonstrative projects. Thus, the Technical Secretariats should be constituted, properly staffed, and adequately empowered during the WF development process to increasingly assume these responsibilities.

APPENDICES

1. Result Matrix
2. Description of individual water funds
3. Interviews conducted
4. Water Funds workshop participants

5. GEF tracking tools
6. Information reviewed
7. Terms of reference

Appendix 1. Results Matrix

Results Matrix

Results Matrix GRT/FM-1261-RC												
Objective	The proposed Regional Platform for Water Resource Management (RPWRM) will support the establishment of a series of WFs in at least five countries across Latin America and the Caribbean region that would serve as financing mechanisms for the protection of key watersheds and the provision of long-term payments for environmental services.											
Outcomes												
Outcome 1: Financing for the protection and management of key watersheds leveraged												
Indicator	Measurement Unit	Baseline*	Baseline Year	Year 1	Year 2	Year 3	Year 4	Year 5	End of Project	Comments/Mean of Verification		
Water Funds Established	Water Fund	0	2011	0	2	3	1	1	7	WF with: a) Board Members agreement or MOU signed; and b) Operational Manual endorsed by the WF Board Members and approved by the Bank		
Water Funds Financially Strengthened	Water Fund	0	2011	0	0	1	2	2	5	Water Funds with a capitalized endowment. Pre conditions for the disbursement to an endowment are: a) WF established and b) Disbursement Agreement between TNC and TNC IP or WF approved by the Bank.		
Outcome 2: Improved technical capacity for Water Funds												
Indicator	Measurement Unit	Baseline*	Baseline Year	Year 1	Year 2	Year 3	Year 4	Year 5	End of Project	Comments/Mean of Verification		
Water Funds with improved technical capacity	Water Fund	0	2011	0	3	4	2	0	9	Water Funds which adopted hydrological and socio-economic monitoring protocols and/or incorporated into their planning process (financial conservation plan) the feasibility studies and/or climate change studies; and/or have received financial support to its Technical Secretariat.		
Outputs												
Component 1: Water Funds												
Indicator	Measurement Unit	Outcomes Associated	Cost (US\$)	Year 1	Year 2	Year 3	Year 4	Year 5	End of Project	Comments/Mean of Verification		
Water Funds with technical assistance provided	Water Fund	2	1,040,858	4	5	0	0	0	9	TNC in-kind staff or funded by GEF providing technical assistance to the WFs, and their correlated costs of travel, communication, supplies		
Workshops conducted	Workshop	2	55,589	2	2	2	1	1	8	Workshops held to promote the information exchange among WF specialists and/or other relevant WF stakeholders		
Communication materials completed	Material	2	228,463	1	2	2	2	2	9	Printed and digital communication materials about the WFs		
Technical (hydrological) study completed	Study	2	266,953	0	2	4	0	0	6	Technical reports of the ecosystem services supply within the watersheds encompassed by each Water Fund.		
Legal/institutional study completed	Study	2	137,896	0	1	4	0	0	5	Legal and institutional reports of the arrangements and feasibility for the establishment of each Water Fund		
Socio-economic study completed	Study	2	210,000	0	2	5	0	0	7	Social and economic reports of the stakeholders' interests and benefits perceivable by the establishment of each Water Fund.		
Climate-change analysis developed	Analysis	2	145,000	0	0	8	0	0	8	Technical reports of the climate change impacts and adaptation and mitigation strategies within the watersheds encompassed by each Water Fund.		
WF launching event conducted	Event	1	33,193	0	2	2	0	0	4	Report including the MOU of board members agreement that supports the constitution of new Water Funds and press and media releases on the launching of new Water Funds.		
Demonstrative conservation projects funded	Project	2	251,086	0	0	2	1	1	4	Reports of conservation projects funded by the Water Fund. The project will be considered in the report once approved by the Water Funds, and the initial funds disburse to the project beneficiaries. One report per project funded		
Endowment Capitalized	M US\$	1	1,900,000	0	0.4	0.7	0.4	0.4	1.9	Funds transferred from the Project to the capitalization of Water Funds. Information will be showed on the budget and on the bi-annual reports		
Hydrological monitoring protocol developed	Protocol	2	105,000	0	0	2	1	0	3	Reports of the hydrological impacts monitoring protocol developed for each Water Fund. One report per each Water Fund		
Socio-economic monitoring protocol developed	Protocol	2	76,250	0	0	2	2	3	7	Reports of social and economic impacts monitoring protocol developed for each Water Fund. One report for each Water Fund		
Water Fund's Technical Secretariat supported	Technical Secretariat	2	524,712	0	3	2	2	0	7	Number of WF Technical Secretariats that received financial support from the Project		

(*) Baseline year is 2011

Appendix 2. Brief Description of the Individual Water Funds

The following paragraphs summarize the most notable aspects, in each of the nine funds visited, with respect to the six dimensions assessed. The conditions described are constantly evolving and apply only to the time of the visit.

I. Camboriu

Legal establishment. The Camboriu WF does not exist as an independent entity, but rather as part of EMASA, the water utility, which allocates 1% of its revenues to conservation and restoration projects in compliance with the law that created it as a public municipal entity in 2005. In spite of a legal basis, existing since 2009, to create a water fund, its implementation as a separate entity has not occurred and is still under consideration.

Stakeholder participation. There was a partnership agreement signed by eight institutions in 2012 to promote the creation of the water fund: TNC; EMASA; the municipalities of Camboriu and Balneario Camboriu; a Basin Committee; EPAGRI/CIRAM, a state institutions in charge of hydrological and meteorological data collection; ARES, the state water utilities regulator; and ANA, the national water agency. In the absence of an autonomous WF, these institutions actively participate in meetings where the selection and approval of conservation and restoration projects is discussed. Currently, there is no private sector or civil society participation in the WF.

Governance. EMASA's Technical Division is in charge of managing all tasks related to conservation projects, although most of these activities have been carried out in coordination and with the support of TNC. There is little documentation to guide the WF activities and procedures. The Operations Manual has not been sufficiently prepared. In spite of the requirement to invest 1% of institutional revenues in watershed protection, there is a risk associated with impending changes in key water utility upper management positions due to recent municipal elections. These changes could modify priorities and affect the level of interest on the WF objectives.

Financial robustness. The requirement to invest 1% of revenues (approximately US\$220,000/year)²⁴ is considered relatively stable due to its legal basis. According to ARES, the regulatory agency, this figure could be increased up to 3% if justified. A mechanism for incorporating conservation costs into the water tariff is currently under consideration by the Regulator. The possibility of attracting other sources of funding, such as private sector contributions from the

²⁴ Assuming US\$1,00 = Real \$3,15

tourism sector, is considered very limited due to the current management arrangement.

Conservation strategy. The hydrological study initially conducted with financial support from the platform used the SWAT model to predict changes in river flows and sediment discharges resulting from land use modifications. The results were questionable due to lack of reliable precipitation and river flow data. Additional studies and monitoring activities are being carried out by TNC, with the support of its central science office, the State Environmental Research Agency, and SWAT model specialists from Stanford University. With better climatological and water quality data, those initial predictions will be improved. These studies have not reach the level of detail of a well-defined conservation plan and its associated financial strategy to sufficiently guide future investments and activities.

Initial investments. Approximately 16 contracts have been signed with property owners in order to protect natural vegetation in the watershed (13,000 ha). Successfully maintaining those contracts would protect approximately 545 hectares. Some recent road drainage work has also been carried out in an attempt to diminish sediment discharges. A large proportion of these contracts have been managed and supervised by TNC staff.

II. Espírito Santo

Legal establishment. The Reflorestar Program was created in 2011 with the objective of protecting and expanding the areas covered by natural forest in the Espírito Santo State. As such, it is not an independent and autonomous organization, but a program within the state's environmental department (Secretaria Estadual do Meio Ambiente - SEAMA/IEMA). The Reflorestar Program took advantage of the existence of a state decision (2008) allowing payments for environmental services, and a state fund, FUNDAGUA, created in 2008 to collect royalties (3%) from the oil and natural gas industries, which were to be used to finance water resources and watershed protection activities in the state. Reflorestar's goal was to expand natural vegetation coverage in 230,000 Ha before 2025 and thus increase the amount of state land covered by forest to nearly 20%.

Stakeholder participation. Being a program within a state institution, Reflorestar does not depend on a group of partnering public and private institutions, as is the case with other WFs. There is, however, collaboration with the National Water Agency (ANA), the state development bank (BANDES), and some municipalities and watershed committees. It is notable that CESAN, the state major water utility, does not participate in Reflorestar in spite of the water scarcity and quality problems suffered by some of its drinking water supply systems.

Governance. The Program's Director is an official within that institution who, along with a staff of about 10 people, validates the work conducted by BANDES, the state development bank in charge of day-to-day operations. BANDES has a staff of about 30 people working on the program.

Financial robustness. The resources collected from royalties are currently in balance with the program's implementation capacity. However, the price of oil and gas in the international markets affects the funds available for payments for environmental services (PES). For example, in 2014, the amount collected was US\$9,5 million, while in 2015 it decreased to about US\$5 million. A portion of the royalties collected (0.5%) is allocated to other water resource projects, some of them related to water infrastructure and flood control.

Conservation strategy. The Reflorestar Program seeks to increase the area covered by natural forests by 80,000 Ha before 2018. Of these, approximately 60,000 Ha are to be preserved and 20,000 Ha restored. Reflorestar has clear prioritization criteria for selecting projects within the 12 basins identified in the state. Additional positive impacts are expected in biodiversity enhancement and in environmentally friendly cattle ranching and agricultural practices. The situation beyond 2018 is uncertain due to the normal political cycles in the state.

Initial investments. In 2013, with the support from the Platform, the Reflorestar "Portal", a technical and financial management system, was developed to facilitate and expedite conservation project processing and approval. As a result, contract processing was accelerated significantly. In 2015 approximately US\$5 million were disbursed to PSA contracts. A surface area totaling 6,000 Ha is reported as having been directly impacted by the program.

III. Medellín

Legal establishment. The CuencaVerde Corporation was created in October 2013 to serve as the entity in charge of promoting and directing investments in environmental conservation and restoration in the watersheds that supply water to the Riogrande II and La Fe reservoirs. These are the most critical reservoirs of the Medellín water supply system. CuencaVerde has been steadily growing and consolidating as a non-profit entity ever since.

Stakeholder participation. EPM, the Medellín water utility, had an early leadership role, which formally started with the agreement signed with TNC in 2010. Besides EPM and TNC, a group of three public and three private institutions comprise the founding partners. The public institutions participating include the environmental institution in charge of watershed protection, the metropolitan authority, and the Medellín Municipality. Four additional private companies have contributed financial resources to WF activities.

Governance. The Board of Directors meets frequently to discuss the WF projects and receive progress reports from the WF Director. The Technical Secretariat has a total staff of 30 people, most of them in charge of developing projects, preparing agreements and supervising fieldwork. The Operations Manual (Feb. 2015) provides organizational guidance and procedures. A Technical Committee to support and advice the WF has not yet been set up.

Financial robustness. Endowment capitalization has reached approximately US\$1.14 million, having received contributions from EPM and four private companies, in addition to \$340,000 from the platform. The WF's Financial Plan (2015) indicates that US\$21 million are required to finance all projects identified within the watersheds. The Corporation could potentially increase its resources by further expanding private sector participation.

Conservation strategy. The initial goal was to address the environmental challenges identified in critical areas, which add up to 23,600 Ha. However, the existing Conservation Plan, based on the studies carried out between 2010 and 2012 with the aid of the SWAT, FIESTA and InVest models, did not include the Buey and Piedras Rivers' watersheds, which do not drain naturally into the La Fe reservoir, but are pumped into it. The WF is currently addressing the needs of those areas. The impacts caused on water quality by partly treated domestic wastewaters from small municipalities, located within the watersheds, were also omitted.

Initial investments. The first conservation agreement was signed in July 2014. Approximately, 175 agreements have been signed since then, impacting 4,170 Ha and benefiting 265 rural families. The amount invested in the first two years (2014-2015) was estimated at US\$1.96 million. For 2016 the estimate is US\$1,31 million.

IV. Bogota

Legal establishment. Bogota's "*Agua Somos*" WF was launched in 2007 seeking to improve and protect drinking water supplies for 8.5 million people. TNC, Patrimonio Natural, Parques Naturales Nacionales, and the Water Utility (EAAB) signed an MOU in 2008 to that effect. In 2009, a more detailed cooperation agreement, to allocate US\$1.3 million for conservation activities, was signed by these same organizations, plus Bavaria Foundation. A new agreement was again signed in 2013 to cover the 2013-2016 period, this time without the participation of the water utility.

Stakeholder participation. The main WF partners are: Patrimonio Natural, a natural heritage fund; three regional environmental authorities (Secretaria Distrital de Ambiente, CAR and CorpoGuavio); the National Park Service; two private companies (Coca-Cola FEMSA and SAB Miller Bavaria Brewery); and

TNC. It should be noted that Bogota's water utility, EAAB, has been relatively uninvolved since the WF was launched in 2009.

Governance. Patrimonio Natural, created in 2006, is the no-profit foundation in charge of administrating *Agua Somos*. A Board of Directors oversees its operations. A Technical Secretary has been appointed. At the present time the WF has a staff of only 2 people. The creation of a Technical Committee has not been implemented.

Financial robustness. The WF's endowment was capitalized with a contribution from the platform equivalent to US\$300,000. The fund has leveraged US\$1.0 million from partners. The WF's Financial Plan (2015) indicates, in broad terms, the resources required to finance various types of projects within the watersheds between 2016 and 2025. The WF could potentially increase its resources by expanding private sector participation and strengthening its administrative capacity.

Conservation strategy. The existing Conservation Plan (2015) provides broad guidelines from 2106 to 2025 that would require further detail to be fully operational. The Operations Manual (2014) indicates that the proposed activities could cause a reduction in sediments of approximately 2 million tons/year is expected. The WF has broad strategies to invest approximately US\$20 million in 78,372 Ha located within the three large watersheds. Besides lowering water-treatment costs due to decreased sedimentation levels, the fund seeks to conserve the *paramos'* unique biological diversity and improve the social and economic conditions communities. The Conservation and financial Plans, as well as the Operations Manual, are currently under review and modifications with respect to priority areas are possible.

Initial investments. In spite of the limitations described previously, since 2013 the WF has been supporting an initial group projects to gain experience and establish positive relationships with the watershed communities. As stated, initial agreements have been signed that would directly affect 1,485 Ha.

V. Santa Marta

Legal establishment. The WF is in the process of being set up.

Stakeholder participation. The city of Santa Marta currently endures significant water scarcity during the drier months of the year. This has generated substantial interest in the WF concept. To this end, the Santo Domingo Foundation has been sponsoring preparatory WF work. Interest has also been manifested by the following public and private organizations: The Santa Marta Municipality; CORPAMAG, the regional environmental agency; Santa Marta Vital, a civic association of NGOs, private companies and concerned citizens; and ProSierra Foundation, a well-known regional NGO. METROAGUA, the

private water utility, has showed some interest but faces an uncertain future since its contractual period ends in April 2017.

Governance. Undefined at this date.

Financial robustness. Undefined at this stage.

Conservation strategy. The WF proposes to protect five relatively small watersheds corresponding to the following rivers: Piedras, Manzanares, Gaira, Cordoba and Toribio. The first three are the current city water sources, markedly insufficient. The last two are slated as the new water sources for the near future (2019). A recently government-commissioned study indicates that a more permanent solution will require water to be imported from the Magdalena River, through a 45 Km undersea water conduit. Given these proposals, a well thought out and focalized conservation strategy will be needed.

Initial investments. None. The WF is in the process of being set up.

VI. Monterrey

Legal establishment. The Metropolitan Monterrey Water Fund (FAMM) was publicly announced in September 2013 as a non-profit civil association, and was legally created in November 2014 and received authorization from the Tax Administration Service (SAT) to accept tax-free private sector donations in February 2016. Its purpose is to protect the San Juan River watershed through a multi-sector effort by private, public, academic, and civil society organizations.

Stakeholder participation. Nine organization are founding partners of the FAMM: ALFA, ARCA Continental, CEMEX, Cuauhtemoc Moctezuma-Heineken Mexico Brewery, FEMSA, CUPRUM, GRUMA, TNC, and XIGNUX. However, the number of supporting organizations reaches 65, categorized hierarchical manner. The Monterrey Water and Drainage Service (SADM), the water utility, has had limited but increasing participation in the WF.

Governance. A General Assembly, a Board of Directors, a Technical Secretariat, and four specialized committees, constitute the FAMM's governance structure. Due to its fledgling stage, the Technical Secretariat has a staff of only one individual.

Financial robustness. The endowment was created in September 2015, and is pending authorization from the SAT to be able to properly accept private sector donations. It received US\$435,000 from the Platform. Additional contributions to the FAMM amount to approximately US\$6 million. The WF has not yet developed a financial strategy.

Conservation strategy. The destruction caused by torrential flows generated by hurricane Alex (2010) has been a motivating force behind the creation of the WF. Furthermore, the proposal to import water from the Panuco River (Veracruz state), through a 400 Km aqueduct known as the Monterrey VI Project, generated additional impetus to protect the most immediate watersheds. As a consequence, the WF's Operations Manual and Conservation Plan stipulate specific targets for peak flow reductions (579 m³/s), and for increases in water infiltration (20%), to be achieved through green infrastructure. These predictions are currently being reviewed

Initial investments. Between 2014 and 2016, approximately 3,563 Ha have been directly impacted by conservation and restoration projects associated with the FAMM. A comprehensive water resources study, directly financed by the FAMM, is in its final stages of preparation. Requested by the State Governor, it will assist in developing the most desirable strategies for meeting water demands and more reliable predictions on the potential contributions from green and gray infrastructure projects. The FAMM is also acquiring land to install a tree nursery in order to meet the demand for specimens from restoration projects, as well as to serve as a laboratory for implementing and measuring the impacts of its conservation actions.

VII. Yaque del Norte

Legal establishment. The Yaque del Norte has been legally established and incorporated as a public-benefit institution since November 2015.

Stakeholder participation. The WF was founded by a group of 14 institutions and individuals. The main partners are: APEDI, a prestigious local development association; CORAASAN, the water utility; Plan Yaque, a sustainable development association of several institutions; ISA University; JAD, a private agricultural association; Plan Sierra, a government program working in three sub-basins; The Environmental Ministry; Propagas Foundation; and TNC. APEDI has had a leading role in its development.

Governance. A General Assembly, a Board of Directors, and a Technical Secretariat, constitute the WF's governance structure. Due to its recent creation, the Technical Secretariat has a staff of 2 people, one of them supported by CORAASAN.

Financial robustness. The WF received an endowment contribution of US\$215,000

Conservation strategy. The existing Conservation Plan provides broad guidelines for investing in conservation and restoration projects. Further details are desirable.

Initial investments. Approximately 190 Ha have been impacted by conservation and restoration projects associated with the WF. A TNC-BEPENSA Coca-Cola alliance has been instrumental in this regard. One project (US\$27,000) has been directly signed by WF to protect water quality through an artificial wetland, a wastewater treatment system, for a small institution.

VIII. Santo Domingo

Legal establishment. The Santo Domingo WF has been legally established and incorporated as a public-benefit institution since December 2015.

Stakeholder participation. The WF was founded by a group of 16 institutions. The main partners are: ECORED, a national private sector network, founded in 2006 to support environmental protection; The Center for agricultural and forestry development (CEDAF); CAASD, the water utility since 1973; The Dominican University Foundation (FUDPHU); The Environmental Ministry; BEPENSA Coca-Cola; Propagas Foundation; PRONATURA; Sur Futuro Foundation; Popular Foundation; and TNC. ECORED has played a leading role in the constitution of the WF. CAASD's participation has been relatively limited.

Governance. A General Assembly, a Board of Directors, a Technical Secretariat, constitute the WF's governance structure. The Technical Secretariat has not been yet established.

Financial robustness. The WF received an endowment contribution of US\$280,000

Conservation strategy. The existing Conservation and Financial Plans provide broad guidelines for investing in conservation and restoration projects. Further details are desirable.

Initial investments. Approximately 230 Ha have been impacted by demonstrative conservation and restoration projects associated with the WF. No projects yet financed directly by WF. Demonstrative projects have been coordinated by TNC and financed by BEPENSA under the WF concept.

IX. Lima

Legal establishment. Lima's AQUAFONDO was publicly launched in November 2010 and an MOU was signed in March 2011. However, due to legal hurdles, the WF was only fully constituted as a non-profit civil association in February 2016.

Stakeholder participation. AQUAFONDO has six partners: The Americas Fund, FONDAM; Backus; SPDA, GEA group; Catholic University; and TNC.

At the present time SEDAPAL, Lima's water utility, is not active participant of the WF although there has been collaboration from the WF in establishing a preliminary set of potential watershed protection projects.

Governance. A General Assembly, a Board of Directors, and a Technical Secretariat, constitute the WF's governance structure. Due to its recent creation, the Technical Secretariat has a staff of only 4 people that are partly supported by FONDAM and USAID. FONDAM administers the resources donated by various private institutions.

Financial robustness. The WF received an endowment contribution of US\$445,000 from the Platform. No additional contributions have been made from any other source. At the beginning, FONDAM deposited US\$100,000 into the endowment but withdrew them later for project financing. SUNASS, the water utilities regulator, requires that all water companies allocate 1% of their revenues to watershed protection activities. This requirement applies to SEDAPAL, Lima's drinking water utility. In the case of Lima, this is equivalent to approximately US\$5 million/year, a substantial amount given the WF's current limited capacity. However, SEDAPAL is not legally allowed to transfer this appropriation to the AQUAFONDO without a public bidding process. The basis for this procedural requirement is being reviewed to try to find alternative pathways. A bidding process would force the WF to compete for these resources as any other environmental NGOs.

Conservation strategy. AQUAFONDO developed a set of projects in 2014 to present to SEDAPAL. It includes numeric targets for base flow augmentation, which seem optimistic. Further review of this analysis is therefore recommended. The Conservation strategy does not include the Mantaro River watershed (7,700 Km²), which is currently being diverted through a 10 Km tunnel to the Pacific basin to increase the Rimac River flows and assure drinking water availability at all times of the year. A new 12 Km tunnel to divert an additional 5,0 m³/s, is currently under study.

Initial investments. Approximately 350 Ha have been impacted by demonstrative conservation and restoration projects associated with the WF.

Appendix 3. Interviews Conducted

LIST OF INTERVIEWS CONDUCTED Oct. 26 – Dec. 9, 2016		
DATE	ENTITY	PERSON
CAMBORIÚ, SANTA CATARINA, BRAZIL		
Oct. 26-27	The Nature Conservancy	Claudio Klemz , Environmental Services Project Affairs Coordinator André Cavassani , Ecosystemic Services Program Local specialist
	Empresa Municipal de Água y Saneamento (EMASA) Balneario Camboriú Santa Catarina	André Ritzmann General Director Kelli Cristina Dacol , Technical Director
	Field Visit Camboriú river basin and watershed restoration activities	Claudio Klemz , TNC 2 individuals from Field Implementation Company
	Agencia de Regulacao de Serviços Públicos de Santa Catarina (ARESC)	Silvio César dos Santos Rosa , Regulations Director (Telephone interview)
	TNC Science team Hydrologic monitoring and modeling	Eileen Acosta TNC Hydrologist (Videoconference)
REFLORESTAR, VITORIA, ESPIRITU SANTO, BRAZIL		
Oct. 31 – Nov. 1	The Nature Conservancy	Fernando Veiga Conservation Deputy Director Previous Latin America Water Funds Manager Gilberto Tiepolo Deputy Conservation Manager Vanessa Girao Local Specialist
	Secretaria Estadual do Meio Ambiente (SEAMA) Instituto Estadual de Medio Ambiente (IEMA)	Marcos Sossai Reflorestar Program Manager
	Agencia Estadual de Recursos Hídricos (AGERH)	Antonio de Oliveira Jr. Planning and Hydrology Management Director

SANTA MARTA, COLOMBIA		
Nov. 3-4	The Nature Conservancy	Alejandro Calvache Water Security Coordinator Claudia Vasco Local Specialist
	Santa Marta Vital	Anuar Scaff Executive Director
	ProSierra Foundation	Lucas Echeverry Executive Director
	Field Visit Manzanares and Gaira rivers' watersheds	Alejandro Calvache, TNC Claudia Vasco, TNC
	Corporación Autónoma Regional del Magdalena (CORPAMAG)	Alfredo Martinez Deputy Director
	MetroAgua (Private Water Utility)	Ana Maria Diaz Granados Technical and Environmental Department
CUENCA VERDE, MEDELLIN, COLOMBIA		
Nov. 8-9	Cuenca Verde Corporation	Maria Claudia de la Ossa, Director
	The Nature Conservancy	Jeffrey Cowan Conservation Business Coordinator Carolina Polanía Silgado Watersheds / Water Funds Specialist
	Field Visit Rio Grande II basin and watershed restoration activities at El Balcón Cattle Farm San Pedro de Los Milagros Municipality	Hernán Darío Arango, AlbaTamayo Cattle farm owners and administrators Maria Claudia de la Ossa, Cuenca Verde Jeffrey Cowan, TNC Carolina Polanía Silgado, TNC
	Empresas Públicas de Medellín (EPM)	Maria Isabel Gomez Myriam Osorio Rincon Water and Sanitation Department Wiston Cuellar Engineering Projects Department
	Grupo Nutresa	Claudia Rivera Sustainability Director
	GSI Hydrology Consulting (For Santa Marta Water Fund)	Diego Arévalo Uribe Regional Director for Latin America
	Grupo Argos Foundation	Maria Camila Villegas Executive Director Diana Cuevas Conservation Area
AGUA SOMOS, BOGOTA, COLOMBIA		
Nov. 10-11	The Nature Conservancy	Carolina Polania Watersheds / Water Funds Specialist Jeffrey Cowan Conservation Business Coordinator

	Fondo Agua Somos	Liliana Martínez Secretaria Técnica
	Patrimonio Natural	Francisco Alberto Galán Sarmiento, Director Ejecutivo
	Bavaria Foundation	Juan Carlos Hoyos (Telephone interview)
	Parques Nacionales	Robinson Galindo Director (Telephone interview)
	Field Visit Chingaza National Park Watershed and forest protection activities at Finca El Palmar	Cecilia Sierra de Avellaneda, Cristina and Jaime Avellaneda El Palmar owners Elmer Cortés, Patrimonio Natural Carolina Polania, TNC
AQUAFONDO, LIMA, PERU		
Nov. 14-15	The Nature Conservancy	Luis Alberto Gonzalez TNC Representative in Peru Silvia Benitez Project Manager, Executing Agency Aldo Cardenas Panduro Watershed Specialist
	Fondo de Las Americas (FONDAM)	Juan Gil Ruiz Executive Director Aquafondo Board of Directors' President Mariela Sanchez Guerra Aquafondo Technical Secretary
	Superintendencia Nacional de Servicios de Saneamiento (SUNASS)	Ivan Lucich Larrauri Policies and Norms Manager
	Fondo de Agua de Lima - Aquafondo	Mariela Sanchez Aquafondo Technical Secretary
	Servicio de Agua Potable y Alcantarillado de Lima (SEDAPAL)	Alberto Torres Enriquez Environmental Management Team Leader. Research and Development Department
FONDO DE AGUA METROPOLITANO DE MONTERREY (FAMM), MEXICO		
Dec. 5-6	The Nature Conservancy	Colin Herron Freshwater Program Director Mexico and Northern Central America
	Fondo de Agua Metropolitano de Monterrey (FAMM)	Rodrigo Crespo Director
	Fondo de Agua Metropolitano de Monterrey (FAMM)	Eugenio Clariond Board of Directors President

	Comisión Nacional de Áreas Naturales Protegidas (CONANP)	Sadot Ortiz Commissioner
	ALFA	Juan Carlos Calderon Rojas Corporate Sustainability Director Horacio Martínez Reyes Corporate Sustainability FAMM Science Committee coordinators
	Arca Continental - Coca-Cola	Guillermo Garza Martínez Corporate Communications and Social Responsibility Executive Director
	Comisión Nacional del Agua (CONAGUA)	Oscar Gutierrez General Director Río Bravo Basin Committee Director
	Instituto Tecnológico de Monterrey	Aldo Ivan Ramirez Professor of Hydrology Centro del Agua para America Latina y Caribe
	Fundación FEMSA	Carlos Hurtado David Moreno
FONDO DE AGUA DE YAQUE DEL NORTE (FAYN), DOMINICAN REPUBLIC		
Dec. 8	The Nature Conservancy (TNC)	Carlos Garcia Program Manager
	Corporación del Acueducto y Alcantarillado de Santiago (CORAASAN)	Silvio Duran General Director Fidel Rivas Technical Director
	Plan Yaque	Humberto Checo
	Asociación para el Desarrollo, Inc. (APEDI)	Saul Abreu Executive Director Manuel Jose Cabral Theasury Juan Manuel Ureño Member Walquiria Estevez FAYN Technical Director
FONDO DE AGUA DE SANTO DOMINGO (FASD), DOMINICAN REPUBLIC		

Dec. 9	Junta Directiva FASD (Six institutions participated as FASD members)	Roberto Herrera FASD Board President Compañía Eléctrica de San Pedro de Macorís (CEPM) Maria Alicia Urbaneja Executive Director Red Nacional de Apoyo Empresarial a la Protección Ambiental (ECORED) Migdonio Lorenzo Morillo Technical Assistant to Director Corporación del Acueducto y Alcantarillado de Santo Domingo (CAASD) Rafael Tamayo Deputy Director, CAASD Maria Paula Michelli Fundación Propagas Katia Mejía Fundación Su Futura Francisco Nunez TNC Country Program Representative
	Centro para el Desarrollo Agropecuario y Forestal (CEDAF) and PRONATURA	Janina Segura CEDAF Francisco Arnemann Executive Director PRONATURA

Appendix 4. Water Funds Workshop Participants

WATER FUNDS WORKSHOP PARTICIPANTS	
Washington, DC	
Dec. 13 -14, 2016	
The Nature Conservancy	Hugo Contreras Silvia Benitez Ana Guzmán Jeffrey Cowan
FEMSA Foundation	Mariano Montero Carlos Hurtado Ilsa Ruiz David Moreno
Inter-American Development Bank	Sergio Campos German Sturzenegger David Wilk Anamaria Núñez Manuela Velásquez Camilo Garzon (Consultant)

Appendix 5. GEF Tracking Tools

(Included separately)

Appendix 6. Information reviewed

GENERAL

- IDB. *Regional Platform for Water Resource Management (RG-G1001). Project Profile*. 2010.
- IDB. *Regional Platform for Water Resource Management (RG-G1001). Results Framework*
- GEF. *Earth Fund Platform Identification Form. IDB-TNC Proposal*. February 1, 2010.
- IDB. *Regional Platform for Water Resource Management (RG-G1001). Non-Reimbursable Financing Proposal*. 2010.
- GEF. *Monitoring and Evaluation Policy*. November 2010.
- TNC - IDB. *Regional Platform for Water Resource Management (GRT/FM-12631-RG). Non-reimbursable Financing Agreement*. March 16, 2011.
- TNC. *Regional Platform for Water Resource Management (GRT/CF-12631-RG). Operations Manual*. August 2012.
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- IDB Memorandum. *Proposed modifications to the Special Conditions and Annex of the Non-reimbursable Financing Agreement and Changes to the Results Matrix*. June 14, 2012
- IDB. *Regional Platform for Water Resource Management (GRT/CF-12631-RG). Amendatory Agreement*. July 16, 2012
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- GEF – IDB. *Regional Platform for Water Resource Management Project (RG-X1142). Implementation Report FY 2012*
- GEF – IDB. *Regional Platform for Water Resource Management Project (RG-X1142). Implementation Report FY 2013*
- TNC. *Regional Platform for Water Resource Management (GRT/CF-12631-RG). AOP-PEP- Budget*. August 2012, February 2013, October 2013, February 2014.
- IDB. *Regional Platform for Water Resource Management (GRT/CF-12631-RG). Project Procurement Plan*. 2012, 2013, 2014.

- TNC. *Regional Platform for Water Resource Management (GRT/CF-12631-RG). Reimbursement Requests*. 2013, 2014.
- TNC. *Regional Platform for Water Resource Management (GRT/CF-12631-RG). Financial Reports*. 2013, 2014.
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DOMINICAN REPUBLIC

Santo Domingo Water Fund

Hydrological and Climate Change

- Riverside Technology. *Swat Hydrological Modeling and the Impact of Climate and Land Use Change on the Yaque del Norte, Ozama, Haina and Nizao Watersheds*. July 2013

Legal

- Agrofora, SRL. *consultoría estudio legal y factibilidad de Fondos de Agua en La República Dominicana*. 2013

Socio-economic

- Carlos A. Rivas, MSC, Timothy McFarren, Lic Héctor Melo, MSc. *Estudio socioeconómico Fondo de Agua Santo Domingo cuencas de los ríos Nizao, Haina y Ozama*. Agosto, 2013

Yaque del Norte Water Fund

Hydrological and Climate Change

- Riverside Technology. *Swat Hydrological Modeling and the Impact of Climate and Land Use Change on the Yaque del Norte, Ozama, Haina and Nizao Watersheds*. July 2013

Legal

- Agrofora, SRL. *Consultoría estudio legal y factibilidad de Fondos de Agua en La República Dominicana*. 2013

Socio-economic

- CEDAF, *Estudio socio-económico Fondo del Agua Yaque del Norte*. Agosto, 2013

Fondo Agua Yaque del Norte. *Manual de operaciones*. Octubre 2014

MEXICO

Monterrey Water Fund

Climate Change

- Alejandro Callejas Linares. *Programa de trabajo: El cambio climático como eje transversal en las acciones del Fondo del Agua de Monterrey; identificación de ejes para las medidas de mitigación y adaptación*

Socio-economic

- Universidad Autónoma de Nuevo León. *Diagnóstico de actores vinculados con la gestión y manejo del agua en las zonas prioritarias de la Cuenca del Río San Juan, Nuevo León, México*

PERU

Lima Water Fund

Hydrological and Climate Change

- Aqua fondo. *Planificación estratégica para la conservación en el esquema del Fondo de Agua para Lima y Callao*. 2013
- CONDESAN. *Análisis hidrológico de las cuencas del río Rímac, Chillón y Lurín*, Abril 2014

Legal

- Aqua fondo. *Estudio legal institucional*. Noviembre 2013

Socio-economic

- Miguel Rodríguez Zevallos. *Definición de metas económicas y financieras para el Fondo del Agua para Lima y Callao*. Noviembre 2013

Aqua fondo. *Manual operativo* 2014

COLOMBIA

Medellín Water Fund – Cuenca Verde

- Corporación Cuenca Verde. *Fondo de Agua de Medellín y el Valle de Aburrá*
- EPM, TNC. *Creación de un fondo de conservación para las cuencas abastecedoras de los embalses Río Grande II y La Fe que proveen agua para el Valle de Aburrá*

Hydrological and Climate Change

- EPM, TNC. *Estructuración de un fondo de conservación para las cuencas abastecedoras de los embalses de Medellín y el Valle de Aburrá*. Julio, 2012
- *Propuesta de estructura legal, financiera e institucional para el Fondo del Agua*.

Cuenca Verde. *Manual de Operación*. Febrero 2014

Bogotá Water Fund

- EAAB, Parques Nacionales, Patrimonio Natural, TNC. *Propuesta para el establecimiento de un mecanismo de conservación para las cuencas abastecedoras de la ciudad de Bogotá*. Mayo, 2008

Hydrological and Climate Change

- CIAT, UNC Palmira, Kings College London. *Análisis de oportunidades de inversión en conservación por ahorros en tratamiento de aguas*. Sitio: El Páramo de Chingaza, Colombia. Octubre 2007

Legal

- Macías Gómez y Asociados Abogados. *Prefactibilidad Financiera, administrativa y legal, Mecanismo Aguasomos*. 2011

Socio-economic

- Ingeodesa. *Análisis cartográfico como insumo para la identificación de los predios que conforman el área de implementación de un esquema de pago por servicios ambientales (PSA) del mecanismo Agua Somos*. Caso de estudio: Cuenca del río Chiguanos en el municipio de Guasca, Cundinamarca. Agosto 2013
- Ecosimple. *Diseño de un esquema de pago por servicios ambientales en la microcuenca del río Chiguanos en el municipio de Guasca, jurisdicción de Corpoguavio*. 2013
- Ecometría SA. *Diseño de un mecanismo financiero para la inversión en conservación en las cuencas abastecedoras de agua de Bogotá y sus municipios aledaños*. Enero 2008
- Macías Gómez y Asociados Abogados. *Manual de manejo financiero, Mecanismo Aguasomos*. 2011

Aguasomos. *Manual Operativo*. Versión 2.0. 2014

BRAZIL

Espiritu Santo Water Fund

- SEAMA, IEMA. *ProdutorES de Agua*

Hydrological and Climate Change

- Talita Beck, ME. *Identificação de diretrizes para aplicação de elementos de adaptação e mitigação as mudanças climáticas como indicadores de priorização de ações para o programa reflorestar / Fundo de recursos hídricos e florestais do Estado do Espírito Santo – Fundaga*. Janeiro, 2014
- IEMA(ES), IBIO. *Nota Técnica 02 – Caracterização da qualidade de água e cobertura florestal na subbacia do rio Batatal, área Piloto do projecto Produtores de Água*.

Legal

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Socio-economic

- OLAM – Ciencia y Tecnologia. *Projeto produtores de água: Uma nova estratégia de gestão dos recursos hídricos a través do mecanismo de pagamento por serviços ambientais.*

Palmas Water Fund

Hydrological and Climate Change

- Silneiton Favero. *Identificação de diretrizes para aplicação de elementos de adaptação e mitigação as mudanças climáticas como indicadores de priorização de ações no Ribeirão Taquarussu.* Junho 2014

Legal

- Tabet Abogados. *Modelo jurídico-institucional para um programa de pagamento por serviços ambientais para proteção dos recursos hídricos. Resumo Executivo.* Março 2014

Socio-economic

- Jandaira dos Santos Moscal. *Estudo socioeconomico da bacia hidrográfica do Ribeirão Taquarussu, Palmas, To. Relatório Final de Análise dos dados.* Dezembro 2013

Camboriu Water Fund

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Hydrological and Climate Change

- Acqua Dinamica. *Estudo de modelagem hidrológica para avaliação de impactos do projeto produtor de água do Rio Camboriú.* Janeiro 2014
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Legal

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- Lei No. 3026 de 26 de novembro de 2009. Cria o projecto Produtor de Água, Autoriza a Empresa Municipal de Água e Saneamento – EMASA a prestar apoio financeiro aos proprietários rurais e dá outras providências
- Lei No. 15.133, de Janeiro de 2010. Institui a política estadual de serviços ambientais e regulamenta o programa estadual de pagamento por serviços ambientais no Estado de Santa Catarina, instituído pela Lei No. 14.675 de 2009, e estabelece outras providências.

Socio-economic

- Karen Follador Karam. *Estudo Socioeconomico da bacia do Rio Camboriú / SC.* Dezembro 2013

Appendix 7. Terms of reference

GRT/FM-12723-RG

Evaluación Final: Plataforma Regional para el Manejo de Recurso Hídrico

(RG-X1142)

TERMINOS DE REFERENCIA

Antecedentes

Establecido en 1959, el Banco Interamericano de Desarrollo (" BID " o " Banco") es la principal fuente de financiamiento para el desarrollo económico , social e institucional en América Latina y el Caribe. Proporciona préstamos, subvenciones, garantías, asesoramiento sobre políticas y asistencia técnica a los sectores público y privado de sus países prestatarios.

El desarrollo y el cambio climático están provocando una situación en la cual todos los ecosistemas naturales se encuentran sometidos a grandes presiones. Entre ellos, los ecosistemas de agua dulce y las diversas comunidades de especies que pueblan los lagos, ríos y humedales son los que corren más peligro. A pesar de que dichos ecosistemas ocupan solamente un pequeño porcentaje de la superficie del planeta, si se efectúa una comparación hectárea por hectárea, ellos son más ricos en especies que los ecosistemas terrestres y marinos, que son de mayor extensión.

No obstante, estos ecosistemas han perdido una proporción mayor de sus especies y hábitats que los ecosistemas terrestres u oceánicos debido a los crecientes peligros que representan la construcción de represas, la extracción de agua, el cultivo excesivo, la contaminación, la deforestación y la presencia de especies invasivas. El cambio climático amenaza con plantear mayores desafíos, en virtud de los cambios previstos en la estacionalidad y en los patrones anuales de precipitación.

Los datos históricos sugieren que es más rentable proteger que mitigar, y como consecuencia, muchas ciudades del mundo han decidido realizar inversiones en gran escala en la gestión de los ecosistemas, a fin de proteger la calidad del recurso hídrico aguas arriba, en vez de invertir en plantas de filtrado.

Si bien los ahorros provenientes de la gestión de cuencas hidrográficas pueden ser significativos, prácticamente se han ignorado a nivel universal los costos conexos a la hora de fijar los precios del agua. Aun peor, estos costos no se han comparado con los costos operativos del tratamiento del agua ni los costos de inversión en nuevas infraestructuras. Se espera que con el proyecto las compañías y empresas abastecedoras de agua valoren el agua dulce, por ser un producto básico valioso que se produce, se vende, se consume y en el que se invierte.

Reconociendo esta oportunidad, TNC y los socios locales han trabajado por más de una década en la creación de mecanismos financieros e institucionales de vanguardia para proteger la biodiversidad y conservar los recursos hídricos para el consumo humano. Uno de los modelos más exitosos de TNC ha sido el Fondo para la Protección del Agua (“Fondo del Agua”, o FONAG) de Quito, Ecuador. El FONAG es un proyecto público-privado fundado en el año 2000, cuya capitalización actual es de más de US\$6 millones, y que financia programas y proyectos de cuencas hidrográficas relativos a las fuentes de agua de Quito. El FONAG fue creado para aunar a los usuarios de agua de los sectores público y privado en la financiación voluntaria de las medidas de conservación. Los programas que reciben apoyo incluyen la incorporación de guardaparques y controles en zonas forestales protegidas, educación ambiental y actividades de extensión, y otras actividades conducentes a que las personas que viven en zonas sensibles adopten estilos de vida más racionales desde el punto de vista ecológico.

El BID y TNC se comprometieron a crear una plataforma regional para establecer nueve fondos de agua en un mínimo de cinco países de la región y atraer donantes adicionales para participar en este tipo de mecanismo. En diciembre de 2009, el BID y TNC conjuntamente solicitaron una donación de US\$5 millones al Fondo de la Tierra, una dependencia del Fondo para el Medio Ambiente Mundial (FMAM), cuyo Consejo aprobó, en mayo de 2010, la propuesta conjunta, que luego fue avalada por la Directora Ejecutiva del FMAM. El Banco aprobó el proyecto en febrero de 2012 y se priorizaron los siguientes fondos de agua a ser beneficiados con este proyecto: Brasil (Espírito Santo, Camboriú, Palmas), Colombia (Bogotá, Medellín, y posteriormente se incluyó Santa Marta), República Dominicana (Yaque del Norte, Santo Domingo), México (Monterrey) y Perú (Lima).

La Alianza Latinoamericana de Fondos de Agua, está compuesta por cuatro entidades: el BID, Fundación Femsa, el FMAM y TNC. Esta alianza busca crear y fortalecer 40 fondos de agua en América Latina al 2020.

Objetivo(s) de la Consultoría

General: Realizar una evaluación de los resultados de la Plataforma Regional para el Manejo de Recurso Hídrico, proporcionando un análisis completo y sistemático desde el diseño del Proyecto, el proceso de implementación, y la obtención de los productos, resultados y posibles impactos del mismo.

Específicos: Realizar un análisis del proceso de ejecución del Proyecto, los productos obtenidos y el cumplimiento de los objetivos del Proyecto según fueron plasmados en los documentos aprobados por el FMAM²⁵. Este análisis deberá enfocarse en determinar en los siguientes aspectos:

- a) Evaluar el diseño del Proyecto, el sistema de monitoreo y evaluación del mismo, y la aplicación o no de una gestión de planificación adaptativa a partir de los riesgos identificados y los resultados de la evaluación de medio término tomando en consideración los diferentes tiempos, ritmos y visiones de las actores involucrados.

²⁵ GEF CEO Endorsement

- b) Presentar un análisis de los actores involucrados en el proyecto durante la vida del mismo y su impacto en los resultados del mismo.
- c) Evaluar la sostenibilidad del Proyecto y sus componentes en términos institucionales, financieros, ambientales, y sociopolíticos (así como el grado de apropiación de sus usuarios/grupos meta a través de un análisis retrospectivo de involucramiento de los actores relacionados al Proyecto).
- d) Facilitar un proceso de consulta y presentación de resultados que promueva la transparencia y rendición de cuentas, al igual que valorar y socializar los resultados del Proyecto.
- e) Sistematizar las lecciones aprendidas que pueden mejorar la selección, diseño y ejecución de futuras actividades financiadas por el FMAM.
- f) Proporcionar retroalimentación acerca de los temas que son recurrentes en los proyectos del FMAM según los objetivos estratégicos establecido para el financiamiento de Proyectos de biodiversidad, como por ejemplo la sostenibilidad financiera de las áreas protegidas.
- g) Reportar acerca de la relevancia de los resultados del proyecto con respecto a los objetivos del FMAM y a las prioridades regionales y de cada uno de los países beneficiados.
- h) Evaluar el desempeño de todas las instituciones involucradas en la ejecución del Proyecto, y del apoyo y supervisión brindada de parte del Banco Interamericano de Desarrollo en su calidad de agencia implementadora del FMAM,
- i) Evaluar el uso y nivel de desembolso de recursos, tanto de la donación FMAM, como de la contrapartida identificada para este proyecto.

Actividades Principales

El candidato seleccionado deberá:

Plan de Trabajo y Metodología

Para el desarrollo de la consultoría se deberá proponer una metodología y plan trabajo que permita asegurar el cumplimiento de los objetivos de estos Términos de Referencia y coordinar las diferentes acciones necesarias con la Unidad Ejecutora, para estos fines, se pueden proponer instrumentos y mecanismos de evaluación utilizados en programas de biodiversidad preferiblemente financiados por el FMAM. También se deben incluir los principales requerimientos detallados de las Guías para Agencias del FMAM para llevar a cabo Evaluaciones Finales (“Guidelines for GEF Agencies conducting Terminal Evaluations”, “GEF Evaluation Office Ethical guidelines”), así como tener en cuenta las políticas del BID al respecto.

Análisis de documentos

El Contractual deberá considerar en el desarrollo de su trabajo, al menos, los siguientes documentos:

- a) El Convenio de Financiamiento No Reembolsable de Inversiones del Fondo del Medio Ambiente Mundial N° GRT/CF-12631-RG.
- b) La política de seguimiento y evaluación del FMAM.
- c) Las guías para preparación de Evaluaciones Finales del FMAM

- d) Los reportes de implementación del Proyecto (PIR- por sus siglas en inglés) e informes semestrales de ejecución para el Banco.
- e) “Tracking Tools” del 2015 (evaluación intermedia)
- f) Los documentos de preparación del Proyecto presentados al FMAM y aprobados por el CEO, incluyendo Matriz de Resultados y sus anexos (POD, RG-X1142)
- g) Los documentos de planeación del Proyecto (i.e. Planes Operativos Anuales, Plan de Ejecución, Plan de Adquisiciones, Presupuesto Detallado) para el 2012, 2013, 2014, 2015 y 2016.
- h) Documentos del Proyecto RG-X1142 (anteriormente RG-G1001)
- i) El Reglamento Operativo del Proyecto
- j) Herramientas de planificación del proyecto: PMR, POA y Plan de Adquisiciones, entre otras.
- k) El informe de la Evaluación Intermedia del Proyecto.
- l) Los estados financieros del Proyecto.
- m) Los informes finales de auditoría y de las consultorías financiadas por el proyecto y otros documentos técnicos relevantes.
- n) Convenios y demás documentos celebrados entre diferentes instituciones para la conformación de los fondos de agua
- o) Documentación de respaldo de los aportes del co-financiamiento.
- p) Legislación nacional relevante relacionada con el Proyecto (en los fondos seleccionados) y cualquier otro material que pueda considerarse de utilidad.

Visitas de campo para verificar los logros del Proyecto

El Contractual deberá realizar una visita a cada uno de los países donde se financiaron Fondos de Agua, estos son: México, Colombia, Brasil, República Dominicana y Perú.

Diseño y aplicación de entrevistas y consultas

El Contractual deberá elaborar y llevar a cabo un programa de entrevistas²⁶ para obtener opiniones y percepciones de los siguientes actores sobre el desempeño del Proyecto:

- a) Personal del Banco Interamericano de Desarrollo responsable de la supervisión técnica y fiduciaria del Proyecto.
- b) Personal representante de TNC como agencia ejecutora del proyecto
- c) Personal representante de Fundación Femsa como miembro de la Alianza Latinoamericana de Fondos de Agua
- d) Personal relevante de las entidades públicas y privadas que conforman los Fondos de Agua creados
- e) Otros programas y entidades de cooperación relacionados con el Proyecto.
- f) Los puntos focales para el FMAM en Colombia, Brasil, República Dominicana, Perú y México
- g) Además, dentro de lo posible, el contractual deberá llevar a cabo entrevistas o consultas telefónicas con las firmas consultoras y los consultores individuales encargados de la ejecución de los estudios, actividades y obras específicas del Proyecto. TNC y el BID le darán al contractual un listado con

²⁶ El listado descrito en el inciso 3.5 es solamente una identificación preliminar, no excluye que en el desarrollo de la consultoría sean propuestos más actores.

los contactos relevantes, el cual podrá ser ampliado y complementado por el contractual.

Evaluación de los objetivos, resultados y productos del Proyecto

El Contractual debe evaluar el grado de cumplimiento de los objetivos globales ambientales, los objetivos y los indicadores del Proyecto obtenidos durante su ejecución, identificando cualitativa y cuantitativamente los alcances logrados en los marcos técnico, administrativo, financiero e institucional, así como las lecciones aprendidas considerando la realidad de contexto en la que se desarrolló el mismo.

- a) El análisis debe enfocarse en los impactos y los resultados primordialmente y no únicamente en los productos del Proyecto. Se debe determinar cuáles fueron las limitaciones o factores que incidieron en la implementación del Proyecto que contribuyeron u obstaculizaron el logro de sus objetivos, incluyendo la evaluación del diseño original del Proyecto.
- b) La evaluación de los productos y resultados del Proyecto tomará en cuenta su relevancia, efectividad y eficiencia, asignando el puntaje correspondiente según la escala empleada por el FMAM (ver GEF Terminal Evaluation Guidelines, 32 pp. y el Annex B. Terminal Evaluation Report Review Guidelines del Annual Performance Report 2004 del GEF, Páginas 17-22).
- c) El análisis debe incorporar la identificación de los posibles impactos positivos y negativos indirectos resultantes de las actividades del Proyecto, que no fueron originalmente previstos, para incluirlos en la evaluación del impacto global, particularmente considerando los recursos naturales más sensibles.
- d) Evaluación del enfoque o mecanismo de ejecución del Proyecto sus limitaciones y ventajas para la obtención de los productos y resultados esperados. Se deberá evaluar las ventajas y desventajas del esquema de ejecución.
- e) Evaluación del sistema de monitoreo y evaluación del Proyecto en función de la política de monitoreo y seguimiento del FMAM, detallando si este reunía los requerimientos mínimos durante el diseño del Proyecto y, posteriormente, como fue implementado el sistema. La evaluación abarcará el diseño, su ejecución y uso durante el Proyecto, al igual que el presupuesto y financiamiento para actividades de M&E. La calificación del sistema de monitoreo y evaluación del Proyecto basándose exclusivamente en la calidad de la implementación del mismo. Las deficiencias o virtudes del diseño y financiamiento del sistema serán únicamente para notas explicativas.
- f) El análisis financiero del Proyecto deberá revisar la distribución presupuestaria del Proyecto en función de sus productos y resultados a entregar, la distribución porcentual entre transferencia de tecnologías, elaboración de estudios de base y fortalecimiento de las capacidades locales. Se deberá evaluar si el Proyecto ejerció los controles financieros necesarios incluyendo un sistema de planificación y justificación de los recursos que permitiera la toma de decisiones. Se deberá revisar y cuantificar los fondos de cofinanciamiento comprometidos al momento de aprobación del Proyecto. De igual forma, el análisis revisará si existió el adecuado manejo de fondos y la presentación oportuna de los estados financieros del Proyecto.

- g) Análisis de la sostenibilidad de las inversiones y la efectividad en el desarrollo, así como valores agregados positivos.- Análisis sobre la eficiencia en el uso de los recursos en general.- Análisis del nivel de participación y apropiación de los diversos actores interesados, así como de los compromisos adquiridos por los socios y colaboradores locales.
- h) Se deberá actualizar la herramienta de monitoreo del FMAM (conocido como Tracking Tool en inglés) del área focal de biodiversidad respectiva, a través de consultas o reuniones con TNC, actores vinculados y otros que puedan fortalecer el proceso de determinación de la efectividad de manejo de las AMPs.
- i) Se deberá emplear el sistema de calificaciones del FMAM según lo especificado en las guías para preparación de Evaluaciones Finales del FMAM.

Análisis y presentación de la información recopilada

El Contractual deberá presentar la información de manera que se pueda visualizar con claridad los resultados y permitir:

- a) Comparación, en forma integrada, de las actividades programadas y ejecutadas, los avances y alcances obtenidos, y el grado de cumplimiento de objetivos y metas del Proyecto, con base en la matriz de resultados vigente.
- b) Estado de cumplimiento de las condiciones contractuales.
- c) Análisis de involucramiento y del rol desempeñado por la Unidad Ejecutora y el BID en la gestión del Proyecto.
- d) Determinación de los posibles efectos e impactos a mediano y largo plazo, con base en el avance y cumplimiento de las actividades programadas y ejecutadas, la calidad de las acciones ejecutadas y metodologías asociadas con su desarrollo, y de acciones combinadas, agregadas-generadas para los diferentes componentes.
- e) Desarrollo de cadenas de impacto orientadas al objetivo de impacto del Proyecto.
- f) Análisis de cumplimiento de supuestos del Proyecto.
- g) Análisis de limitantes y aportes del mecanismo de ejecución del Proyecto.
- h) Detección de las desviaciones respecto al diseño en el marco técnico, financiero, económico e institucional para la ejecución del Proyecto.
- i) Definición de las debilidades y fortalezas de los procesos asociados a la ejecución del Programa.
- j) Análisis de cumplimiento de roles de los actores institucionales involucrados en la ejecución del Proyecto.
- k) Evaluar las posibles alianzas e inversiones conjuntas que se hubieran realizado con otras instituciones, organizaciones y/o Proyectos para el alcance de productos con valor agregado.
- l) Análisis de factores de riesgo que afectaron la ejecución del Proyecto.

Taller de divulgación y consulta de los resultados de la Evaluación Final

La evaluación debe tomar en consideración las opiniones de todos los actores relevantes en el desarrollo de la evaluación final. Los actores relevantes son cualquiera que pudiera haber sido afectado ya sea positiva o negativamente con la ejecución del Proyecto.

También deberá realizar un Taller de Divulgación de los resultados en Washington DC, donde se exponga, se discuta y se reciba la retroalimentación requerida por parte del Organismo Ejecutor, actores vinculados y del Banco para elaborar el documento final de evaluación y Ayuda Memoria del Taller realizado.

Informes / Entregables

El contractual deberá entregar los productos que se detallan a continuación:

- **Metodología y Plan de Trabajo:** Deberá ser entregado a los siete (7) días calendario de firmar el contrato.
- **Informe Borrador de la Evaluación Final** (en inglés): Deberá ser entregado el 20 de diciembre de 2016 y deberá contener, pero no limitarse a:
 - a) Información general acerca del Proyecto
 - b) Información general de la evaluación final (incluyendo la fecha en la cual se elaboró la misma, los lugares visitados, las personas entrevistadas, la guía de entrevistas, etc);
 - c) Evaluación del logro de los objetivos globales, objetivos del Proyecto y resultados del Proyecto (relevancia, efectividad y eficiencia).
 - d) Evaluación del enfoque y mecanismos de ejecución del Proyecto.
 - e) Evaluación del grado de apropiación del Proyecto de parte de las instituciones nacionales y regionales.
 - f) Evaluación del grado de participación de los actores, interesados y público en general en el Proyecto
 - g) Evaluación de la Sostenibilidad del Proyecto
 - h) Evaluación de la Replicabilidad del Proyecto
 - i) Evaluación de la Planificación Financiera del Proyecto
 - j) Evaluación del Sistema de Monitoreo y Evaluación del Proyecto.
 - k) Lecciones aprendidas de la ejecución del Proyecto.
 - l) Tracking Tool (TT) actualizado al 2016.
 - m) Presentación en PowerPoint de los resultados de la evaluación, orientada a los involucrados con la ejecución del Proyecto, detallando las conclusiones y recomendaciones principales de la Consultoría
- **Informe Final de la Evaluación Final del Proyecto** (en inglés): Deberá ser entregado el 29 de enero de 2017 y deberá incluir:
 - a) Informe Final, incorporando todas las observaciones y comentarios realizados.
 - b) Anexos: Los documentos que soporten el informe final, además se deberá incluir una explicación acerca de las diferencias o desacuerdos de opinión que pudieran surgir entre lo plasmado por el Contractual a cargo de la evaluación y el Banco, el Ejecutor o los beneficiarios.

- c) Borrador Final del último Informe de Implementación 2015-6 o *Project Implementation Report* (PIR) por sus siglas en inglés a ser presentado ante el FMAM, reflejando los resultados de la evaluación final del Proyecto. El PIR debe ser presentado en inglés únicamente.
- d) Tracking Tool (TT) actualizado incorporando los productos y resultados finales del Proyecto a presentarse al FMAM.
- e) Presentación en PowerPoint ajustada a los resultados del taller de discusión.

Todo Informe deberá ser entregado al Banco en forma electrónica en un solo archivo que incluya la portada, el documento principal y los anexos. (Archivos Zip no se aceptarán como informes finales, debido a regulaciones de la Sección de Administración de Archivos).

El Contractual a cargo de la evaluación final del Proyecto debe estar disponible para cualquier consulta o aclaración solicitada por la Oficina Independiente de Evaluación del FMAM (*GEF Independent Evaluation Office*).

Cronograma de Pagos

La forma de pago será la siguiente:

- 20% a la aceptación del cronograma y plan de trabajo.
- 40% con el informe borrador de la evaluación final.
- 40% a la presentación del informe final aprobado y a satisfacción del Banco.

Calificaciones

- *Título/Nivel Académico & Años de Experiencia Profesional:* Profesional universitario con título en ingeniería, economía, o áreas similares con maestría y/o doctorado afín a la consultoría. Experiencia profesional general de al menos diez (10) años en el área de diseño, administración y/o ejecución de proyectos de agua y saneamiento.
- *Idiomas:* El contractual deberá tener fluidez en español e inglés.
- *Habilidades:* Debe contar con experiencia específica en: (i) manejo de recursos hídricos; (ii) experiencia en operaciones de cooperación no reembolsable; y (iii) experiencia en América Latina.

Características de la Consultoría

- *Categoría y Modalidad de la Consultoría:* Contractual de Productos y Servicios Externos, Suma Alzada
- *Duración del Contrato:* de Octubre 2016 a Marzo 2017.
- *Lugar(es) de trabajo:* Consultoría Externa
- *Viajes:* El Contractual deberá realizar seis (6) viajes cada uno con una duración de entre dos (2) y cinco (5) días. En algunos países se deberán realizar viajes internos. La ruta de los viajes se especifica a continuación:
 - Salida desde Seattle, Washington, USA a Bogotá, Colombia; desde Bogotá a Medellín, Colombia; desde Medellín a Santa Marta, desde Santa Marta a Seattle, Washington, USA.

- Ida y vuelta desde Seattle, Washington, USA a Lima, Perú
- Ida y vuelta desde Seattle, Washington, USA a Monterrey, México
- Ida y vuelta desde Seattle, Washington, USA a Santo Domingo, República Dominicana
- Salida desde Seattle, Washington, USA a Navegantes, Estado de Santa Catarina, Brasil; desde Navegantes hacia Vitória, Estado de Espírito Santo; desde Vitória hacia Palmas, Estado de Tocantins; desde Palmas hacia Seattle, Washington, USA.
- Salida desde Seattle, Washington, USA a Washington DC
- *Líder de División o Coordinador:* Jefe de División de Agua y Saneamiento y Germán Sturzenegger, Especialista Senior de Agua y Saneamiento/

Pago y Condiciones: La compensación será determinada de acuerdo a las políticas y procedimientos del Banco. Adicionalmente, los candidatos deberán ser ciudadanos de uno de los países miembros del BID.

Consanguinidad: De conformidad con la política del Banco aplicable, los candidatos con parientes (incluyendo cuarto grado de consanguinidad y segundo grado de afinidad, incluyendo conyugue) que trabajan para el Banco como funcionario o contractual de la fuerza contractual complementaria, no serán elegibles para proveer servicios al Banco.

Diversidad: El Banco está comprometido con la diversidad e inclusión y la igualdad de oportunidades para todos los candidatos. Acogemos la diversidad sobre la base de género, edad, educación, origen nacional, origen étnico, raza, discapacidad, orientación sexual, religión, y estatus de VIH/SIDA. Alentamos a aplicar a mujeres, afrodescendientes y a personas de origen indígena.