



# Donors Committee For consideration

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The MIF Representatives

From: The Secretary

Subject: Bolivia. Nonreimbursable technical-cooperation funding for the project "Operationalizing Bolivia's Joint Mechanism for Mitigation and Adaptation to Climate Change: Climate Compatible Development in the Bolivian Chaco"

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## DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK MULTILATERAL INVESTMENT FUND

## BOLIVIA

# **OPERATIONALIZING BOLIVIA'S JOINT MECHANISM FOR MITIGATION AND ADAPTATION TO CLIMATE CHANGE: CLIMATE COMPATIBLE DEVELOPMENT IN THE BOLIVIAN CHACO**

(BO-M1067)

DONORS MEMORANDUM

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### **PROJECT SUMMARY**

# **OPERATIONALIZING BOLIVIA'S JOINT MECHANISM FOR MITIGATION AND ADAPTATION TO CLIMATE CHANGE: CLIMATE COMPATIBLE DEVELOPMENT IN THE BOLIVIAN CHACO**

## (BO-M1067)

Bolivia's Gran Chaco encompasses swamps, salt flats, scrublands, and the largest virgin dry forest on earth. The highland forests and pastures to the west of the Chaco plains store and channel the modest rainfall that the region receives. These water resources are utilized by downstream users in lowland communities, towns and cities. Despite the vital role played by forests in the preservation of watersheds and water recharge areas, 85% of the original lowland Chaco forests have been cleared over the last 30 years<sup>1</sup>, due largely to the expansion of mechanized agriculture and cattle grazing. The spread of low productivity cropland and cattle grazing has reduced water quality and quantity and increased public health risks in the form of water-borne diseases.

This project will implement an integrated model for watershed conservation, Complementary Agreements with Mother Earth (*Acuerdos de Complementariedad con la Madre Tierra*, or "ACMTs"), in upstream areas of the Chaco that contain the remaining forestland in the region. The ACMT is a watershed-based model in which downstream water users provide incentives to facilitate a more sustainable use of watersheds by upstream counterparts. These incentives include productive materials, such as seedlings, beehives, barbed wire, or drip irrigation systems, combined with training services. The AMCT model has been successfully implemented in the *Valles Cruceños* of Bolivia. In those cases, land was mostly privately owned. This project will test the ACMT model in the Bolivian Chaco, predominantly indigenous (Guaraní) territories with communal land governance systems located in the hottest and driest part of the country. Given the differences in geography, climate, and community characteristics, testing the model in the Chaco will help assess whether the model is effective across different ethnic groups and ecosystems.

The project has been designed as a randomized control trial (RCT) to test the model's effectiveness in the most rigorous way possible and to provide credible evidence to influence public policy discussions. Policymakers on a departmental and national level are interested in implementing ACMTs and similar mechanisms throughout Bolivia as they provide insightful inputs for the full operationalization of the country's "Joint Mitigation and Adaptation Mechanism for the Integral and Sustainable Management of Forests" ("JMA"), Bolivia's alternative to REDD+<sup>2</sup>.

The ACMT model establishes institutional agreements that provide incentives in the form of capacity building and productive materials/inputs to upstream land users. 3,000 poor and vulnerable upstream indigenous families will receive in-kind support to modify their land use practices. Training and materials that improve agricultural activities will focus on four key areas: (i) climate-resilient agriculture and drip irrigation, (ii) organic honey production and commercialization, (iii) selection and management of orchards, and (iv) improved cattle management. Enhanced land-use techniques and hectares put under conservation are, in turn, expected to result in improved water supply for 15,000 downstream water users.

Financial support will be channeled through existing local governance structures or institutions, such as municipal water conservation funds. Where missing, the project will provide assistance to set up water governance structures to ensure resource sustainability, guaranteeing the proper representation of all

<sup>&</sup>lt;sup>1</sup> Data from studies by the World Land Trust and the Wildlife Conservation Society.

<sup>&</sup>lt;sup>2</sup> The acronym "REDD+" refers to efforts to Reduce Emissions from Deforestation and forest Degradation and enhance forest carbon stocks through reforestation and other land-use activities. A REDD+ mechanism has been under negotiation by the UN Framework Convention on Climate Change (UNFCCC) since 2005 as a key element of the global climate change mitigation policies.

parties involved. Four groups will contribute financially to the water funds: (i) downstream water users, through a small increase in the water tariff, as established by their water provider<sup>3</sup>, (ii) municipal governments, which will purchase beehives, fruit tree seedlings, irrigation pipes or other development tools to support upstream forest conservation efforts, (iii) other local stakeholders, such as cattle ranchers associations, irrigators, oil and gas companies, (iv) and the Executing Agency, which will bring together these groups and provide technical and legal support for establishing the schemes.

The project will also protect an area of 30,000+ ha of upper watershed forests, which will also be assessed for their potential to generate of additional economic benefits for the target communities from storage of forest carbon. Finally, this project will develop a "training of trainers" program to spread expertise in the design and implementation of the ACMT model to municipalities elsewhere in Bolivia and in neighboring countries. All activities will be undertaken in line with the local Bolivian concept of *Complementariedad con la Madre Tierra*, and the project will directly support the continued development and improvement of the Joint Mechanism for Adaptation and Mitigation<sup>4</sup>.

<sup>&</sup>lt;sup>3</sup> In most of the municipalities where the project will be implemented, water providers are organized as cooperatives of users, so that there is direct involvement of the final users (or their representatives) in the governance structure and decision-making processes of the water providers themselves, including with regards to decisions relative to any tariff increase.

<sup>&</sup>lt;sup>4</sup> The Bolivian government presented a proposal, the "Sustainable Life of the Forest" at the UNFCCC COP17 in Durban, South Africa, and as a result, Decision 2/C.P. 17, paragraph 67, asserts that non-market mechanisms can be developed as alternatives to REDD+. Bolivia later refined this concept to become the "Joint Mitigation and Adaptation Mechanism for the Integral and Sustainable Management of Forests" ("JMA"). This Mechanism is founded on the dual importance of forests in adaptation and mitigation, and on the principle of non-commodification of nature.

### ANNEXES

ANNEX I	Logical Framework
ANNEX II	Budget Summary
ANNEX III	Quality for Effectiveness in Development (QED)

### **APPENDIXES**

**Draft Resolution** 

## INFORMATION AVAILABLE IN THE TECHNICAL DOCUMENTS SECTION OF MIF PROJECT INFORMATION SYSTEM

ANNEX IV	Detailed Budget
ANNEX V	Preliminary List of Milestones
ANNEX VI	Diagnostic of Needs of the Executing Agency (DNA)
ANNEX VII	Project Status Reports (PSR), Compliance with Milestones, Fiduciary Arrangements and Integrity Due Diligence
ANNEX VIII	Procurement and Contracting Plan
ANNEX IX	Project Activities Schedule
ANNEX X	Operating Regulations
ANNEX XI	Terms of Reference of the Project Coordinator
ANNEX XII	Monitoring and Evaluation Plan for Impact Evaluation

### **ACRONYMS AND ABBREVIATIONS**

- ABG Access to Basic Services and Green Growth
- ACMT Acuerdos de Complementariedad con la Madre Tierra
- AOP Annual Operating Plan
- **APG** Asamblea de Pueblos Guarani
- **CRF** Corporate Results Framework
- **CRF** MIF Corporate Result Framework
- **DNA** Diagnostic of Executing Agency Needs
- IADB Inter-American Development Bank
- JMA Joint Mitigation and Adaptation Mechanism for the Integral and Sustainable Management of Forests
- MIF Multilateral Investment Fund
- MWCF Municipal Water Conservation Funds
- **OR** Operating Regulations
- PIU Project implementation Unit
- **QED** Quality for Effectiveness in Development
- **REDD+** Reducing Emission from Deforestation and Forest Degradation
- **TIOC** Territorio Indigena Originario Campesino
- **TOR** Terms of Reference

## **PROJECT INFORMATION**

## OPERATIONALIZING BOLIVIA'S JOINT MECHANISM FOR MITIGATION AND ADAPTATION TO CLIMATE CHANGE: CLIMATE COMPATIBLE DEVELOPMENT IN THE BOLIVIAN CHACO

## (BO-M1067)

Country and	Bolivia, Chaco Region. Municipalities of Charagua. Camiri.					
Geographic Location:	Cabezas, Gutierrez, Villa Vaca Guzman, Lagunillas,					
	Monteagudo, Huacareta, Huacaya, Boyuibe, in the					
	Departments of Santa Cruz and Chu	uquisaca.				
Executing Agency:	FUNDACION NATURA BOLIVIA					
		0				
Access Area:	Access to Basic Services and Green	Growth				
Agenda:	Leveraging Natural Capital					
Coordination with	This operation is complimentary to	and was designed in	n			
Other Donors/Bank	coordination with Regional MIF Pro	badapt operation nu	mber			
Operations:	RG-M1264, which was co-financed	with resources from	n the			
	Nordic Development Fund.					
	The operation is being designed in	collaboration with t				
	Climate Change and Sustainability	Division (CCS) which	n is			
	working together with the Governme	ment of Bolivia on de	fining			
	national monitoring protocols for forest carbon sequestration					
	Such monitoring protocols will be tested at regional level in					
	the Chaco through this operation.					
Direct Beneficiaries:	3,000 indigenous Guarani families and small-scale farmers					
	across 100 upstream communities, plus 100 downstream					
	water company technicians and executives.					
Indirect	15,000 downstream water users, a mix of small-scale non-					
Beneficiaries:	indigenous famers and indigenous Guarani.					
Financing:	MIF Technical Cooperation:	US\$ 1,259,846	65%			
	Investment:	US\$ 0				
	Loan: US\$ 0					
	TOTAL MIF FUNDING:         US\$ 1,259,846					
	Counterpart: US\$ 673,215 33%					
	TOTAL PROJECT BUDGET:         US\$ 1,933,062         100%					
Execution and	48 months of execution and 54 months of disbursement.					
Disbursement						
Period:						
Special Contractual	Conditions prior to first disbursement will be:					

Conditions:	a. Selection of Project Director, Technical Coordinator, and				
	Project Assistant;				
	<li>b. Approval of the project Procurement Plan;</li>				
	c. Approval of the Project's Operating Manual, providing				
	opportunities for the Asamblea del Pueblo Guarani to				
	offer inputs to the document;				
	d. Signing of the agreements with at least 60% of the				
	participating Municipalities for the provision of the local				
	counterpart resources.				
Environmental and	This operation was screened and classified as required by the				
Social Impact	IDB's safeguard policy (OP-703). Given the limited impacts and				
Review:	risks, the proposed category for the project is C. The				
	Committee on Environmental and Social Impact (CESI)				
	reviewed the operation on Nov 21 <sup>st</sup> , 2013 and gave its				
	approval without further review or action needed.				
Unit with	COF/CBO				
Disbursement					
Responsibility:					

## 1. BACKGROUND AND JUSTIFICATION

## A. Diagnosis of the Problem to be addressed by the Project

- 1.1. <u>Problem summary.</u> The unsustainable management of watershed resources in the Bolivian Chaco is exacerbating water stress across this region and threatening local communities, enterprises and livelihoods. This is a collective action challenge because the practices of upstream actors in the Andean foothills of the piedmont impose economic and environmental costs on downstream users in the form of reduced water quantity and quality. These practices reflect the lack of economic alternatives available to Guarani communities and small-scale farmers in the piedmont to clearing their land, planting crops, expanding free range cattle grazing and/or engaging in timber extraction.
- 1.2. All of these practices, while economically rational to individual upstream producers, serve to reduce the amount of safe water available to other local productive users and municipalities both upstream, and particularly downstream. Deforestation reduces watersheds' ability to retain and filter water and increases water stress downstream, leaving farms and communities more vulnerable to drought. Unmanaged, free range cattle contaminate streams, increase water-borne disease and generate sedimentation that blocks pipes, threatens dams and dries up wells. These impacts are widespread throughout southeast Bolivia, affecting Santa Cruz (~2 million inhabitants), towns like Villamontes, and small indigenous communities such as the Isoseño, scattered along the Parapeti River.
- 1.3. In addition to the degradation of watersheds, the global climate change in the Chaco over the next three decades is expected to have significant impacts<sup>5</sup>. In particular, the increased risk of droughts is forecast to further exacerbate water quantity and quality problems, thereby threatening the region's agricultural productivity and food security in the absence of adequate countermeasures.
- 1.4. <u>Causes of the problem.</u> The degradation of the Chaco's watersheds is a collective action problem that reduces water availability and quality and imposes economic and social costs on both upstream and downstream communities. While it is in everyone's collective interest, both upstream and downstream, to cooperate and protect upland forests, it is in no one's individual interest to bear the costs to do so. Three principal factors contribute to this problem: upstream communities have few alternatives to unsustainable livelihood activities, institutional structures for water conservation are weak or non-existent, and neither upstream or downstream actors are well-informed about the effects of land-use on water.
- 1.5. <u>Unsustainable, low-productivity livelihood activities.</u> Upstream farmers do not have the skills or technology needed to diversify their productive activities or sustainably produce the quantity and quality of goods needed for commercial sale. As a result they clear land to plant a few staple crops to feed their families, primarily corn and beans, expand free

<sup>&</sup>lt;sup>5</sup> "Estudio de Vulnerabilidad e Impacto al Cambio Climático para el Gran Chaco Americano." Universidad Nacional de Formosa (Argentina), Fundación la Cordillera (Bolivia) e Instituto Desarrollo (Paraguay), December 2012

range cattle grazing and/or engage in timber extraction. In socioeconomic surveys conducted in the Chaco, Guarani households and small-scale farmers reported access to appropriate inputs, equipment, and technology as the primary barrier they face. Agricultural production is for subsistence purposes, with very low market penetration.

- 1.6. Low levels of awareness of the effect of land-use on water quality and quantity. Municipal governments, water providers and water users downstream are not aware of the impacts upstream land-use has on water quantity and quality. The scope of municipal water providers' activities - which includes the installation, operation and maintenance of the water works and pipes which collect and channel water resources to the municipal water grid – generally focuses on the watershed area <u>downstream</u> of the main water collection intake. Even though the activities occurring on land upstream of the water grid intake produce direct impacts on downstream water quantity and quality, downstream water providers and users are often not fully aware of this dynamics. In parallel, upstream communities have limited knowledge of the agricultural practices and technologies that use land and nutrients most efficiently and would contribute to better preserve water sources.
- 1.7. <u>Weak or non-existent institutional structures for water conservation</u>. Water sources and forested land key for water recharge purposes have not been protected because no local or national institutions have a specific mandate to promote watershed conservation. Water providers, municipal water companies such as *Empresas Publicas Social del Agua y Saneamiento* (EPSAS) or water cooperatives, typically only have a mandate to collect water tariffs and operate and maintain the water collection and delivery infrastructure. They do not have the mandate or the capacity to extend their activities further upstream where forests filter and channel water to distribution infrastructure. This problem becomes even more exacerbated in cases where no group of downstream water users exists.
- 1.8. This project will implement an integrated model for watershed conservation, Complementary Agreements with Mother Earth (*Acuerdos de Complementariedad con la Madre Tierra*, or "ACMTs"), in which downstream people who depend on the water resources generated upstream agree to contribute to a local water fund. These funds are then used to provide training and productive inputs to upstream Guarani communities and migrant small scale farmers to upgrade their productive capacity and preserve forests critical to improved water quality and quantity. The project will set-up water funds within existing governance structures, such as local water cooperatives or EPSAS, and will provide training to their members. Upstream farmers and Guarani communities will be offered the opportunity to sign watershed agreements, AMCTs, with the water funds, committing to preserve forests and/or keep cattle out of water sources in return for training and productive inputs.

## B. Project Beneficiaries

1.9. The project is designed to enhance the livelihoods of both upstream and downstream communities. Upstream beneficiaries of this project include approximately 3,000 poor families in rural villages across 10 municipalities in the Santa Cruz and Chuquisaca Departments. About 80% of the population in these upstream communities is Guarani, 10% of adult community members can't read, and 58% of houses have walls made from

mud. Small-scale non-indigenous farmers have also settled in the area, with most newer settlers migrating from the highlands of Chuquisaca. Both Guarani and non-Guarani families deforest about 1–1.5 ha per family per year. More than 80% of adults work in agriculture, practicing small-scale, often subsistence farming of maize, peanuts, beans, potatoes squash, yucca, tomatoes and soy with annual incomes of less than \$2,000. More than 55% of families own cattle (with an average of 18 head per family), 60% of which graze freely across the landscape.

- 1.10. While some land is privately owned, the majority, especially in indigenous areas, is owned communally, under a specific modality recognized by Bolivian Law as a *Territorio Indigena Originario Campesino* (TIOC). Table I at the end of this Memorandum presents a full list of the 10 municipalities targeted by the project.
- 1.11. Because the project cannot offer AMCTs to all 230 eligible communities, and aims at testing the effectiveness of the model using a randomized control trial (RCT), communities will be randomly selected through a public lottery to participate in the project. About 100 communities, representing about 3,000 families, will be selected and offered the ACMT model during the four years of the project. The remaining communities will be the control group. Further information on the RCT design is presented in section 3 "Monitoring and Evaluation".
- 1.12. Downstream beneficiaries include 15,000 water users with annual family incomes under \$2,500. Benefits for these stakeholders include access to a greater quantity of clean water and the associated economic benefits, including more jobs, better wages, and greater sales revenue from agricultural and forest products that use water intensively. These water users will contribute economically to the water funds and help ensure the long-term sustainability of the initiative.

## C. Contribution to MIF Mandate, Access Framework and IDB Strategy

- 1.13. The project will contribute to the MIF mandate by impacting the poverty of traditionally excluded groups and vulnerable populations. Most of the rural beneficiaries of this project are indigenous and depend on small scale farming as their main source of sustenance in a region where drought and food security are endemic. In line with the Bank's commitment to *Development with Identity*<sup>6</sup>, indigenous communities will be strategic partners and the project will work in harmony with local governance structures to foster inclusion and participation in project design and implementation. By adapting and scaling a model that has proved successful elsewhere in Bolivia, the project will promote the local economic development of the traditionally isolated Chaco region.
- 1.14. The project will focus on maintenance of water quantity and carbon stocks by and for primarily poor indigenous groups on water stressed, communally held land. These beneficiaries are highly susceptible to climate change and droughts. This project is part of a wider strategic approach the Green Growth Team (MIF/ABG) has designed to test different models to promote watershed conservation through different incentive schemes.

<sup>&</sup>lt;sup>6</sup> IDB Operational Policy on Indigenous Peoples (GN-2296): <u>http://goo.gl/IV8D2c</u>

- 1.15. The ABG team identified three main approaches to achieve such goals: (i) Private Payments for Watershed Services, (ii) Complementary Agreements, or *Acuerdos de Complementariedad con la Madre Tierra* (ACMT) in the case of Bolivia, as described below in Section 2, and (iii) Government Payments for Environmental Services, as well as various combinations of the three models identified. This project will focus on the ACMT model, which has already proven effective with 2,000 participants in Bolivia's productive, moist, mid-altitude (~1500m) Santa Cruz Valleys, but has yet to be tested and adapted to poorer, drought-susceptible regions, with significant indigenous communities, such as the Gran Chaco.
- 1.16. The set of projects proposed under this strategic approach include two additional MIF projects, approved in 2014 respectively in Panama (PN-M1026) and Guatemala (GU-M1042). PN-M1026 will test a version of the *Private Payment for watershed services* model, where approximately 400 small scale farmers in the Panama Canal watershed will receive technical assistance and in-kind contributions, initially from the Authority of the Panama Canal, to support transition towards more sustainable farming methods. GU-M1042 will test a version of the *Government Payments for environmental services* model, where the Government of Guatemala will provide direct payments for reforestation and forest conservation to approximately 5,000 smallholder farmers. All projects included within the proposed framework will contribute to the development of a common knowledge product.
- 1.17. <u>Link to the Agenda</u>. This project will contribute to the MIF agenda, "Leveraging natural capital," and is aimed at the sustainable use and protection of forest and water resources and increasing the income-generating opportunities for small farmers.
- 1.18. <u>Collaboration with the Bank Group.</u> This project will inform the IDB Bolivia Country Strategy for 2011-2015, which identifies water and sanitation as among its highest priorities, which is in line with the Bolivian Government's strategic priorities. In addition, the project will inform the Country Strategy on reducing climate vulnerability and increasing climate resilience in Bolivia. Finally, the project aims to test and downscale country-wide methodologies for carbon sequestration accounting and monitoring that are being defined in coordination with IDB Climate Change and Sustainability Division (CCS) and the Government of Bolivia.

## 2. PROJECT DESCRIPTION

## A. Objectives

2.1. The project's objective is to test the effectivity of the ACTM mechanism in the Chaco region. The project's intended outcome is to increase the income of 3,000 upstream producers and improve water quality and quantity for 15,000 downstream water users. The project also expects to reduce greenhouse gases emissions that would be generated through changes in land use. The intended results are that upstream and downstream beneficiaries will adopt watershed protection agreements (ACMT) and protect 30,000 hectares of upstream, forested watersheds.

## B. Description of Model

- 2.2. This project will test a model for watershed conservation developed in Bolivia by the Executing Agency and called *Complementary Agreements with Mother Earth* (ACMT). In this model, downstream water users contribute to a water conservation fund that pays for in-kind incentives (beehives, fruit trees, drip irrigation supplies, barbed wire, etc.) and training for upstream families who modify their land-use practices to protect water sources and maintain forest cover. Upstream families sign watershed agreements defining their commitment to protect water sources and conserve forested land. Incentives are given out annually based on continued compliance with the commitments made through the watershed agreement.
- 2.3. In cases where there is no organized group of downstream water users that could contribute to the water conservation fund, the project will design and pilot a new form of integrated Complementary Agreement that, in addition to protecting upper watershed forests, tries to quantify, maximize and monitor the carbon sequestration capacity of the landscape. Potential investors in the maintenance of environmental functions are municipal governments and national/international actors with an interest in mitigating, and promoting adaptation to, climate change. This variation on the ACMT model, where the bulk of the incentives for land conservation does not come from downstream water organized users, will be tested through component 4.
- 2.4. The ACMT model builds, to the extent possible, on existing governance structures and institutions. Local water providers, municipal governments and the *Asamblea de Pueblos Guarani* (APG), the maximum Guarani authority in Bolivia, establish municipal water conservation funds and define the framework for the watershed agreements with upstream communities.
- 2.5. Four groups will contribute financially to the water funds: (i) downstream water users, through a new tariff established by their water provider<sup>7</sup>, (ii) municipal governments, which will purchase beehives, fruit tree seedlings, irrigation pipes or other development tools to support upstream forest conservation efforts, (iii) other local stakeholders, such as cattle ranchers associations, irrigators, oil and gas companies, (iv) and the Executing Agency, which will bring together these groups and provide technical and legal support for establishing the schemes. Donations from the Executing Agency and the municipal governments will only occur at the beginning of the fund. The water funds will achieve long-term sustainability through the ongoing tariff contributions from downstream users, water providers and from other local stakeholders, which may vary from municipalities to municipality. The Executing Agency has gained significant experience in assisting local water providers in establishing and managing water conservation funds at municipal level in the Valles Cruceños over the last decade.
- 2.6. <u>Technical assistance delivery.</u> The project will provide training and in-kind incentives to improve agricultural practices and productivity in four key areas relevant for the

<sup>&</sup>lt;sup>7</sup> Organized "Water Providers" exist in the major towns of Abapo, Camiri, Cuevo, Charagua, Monteagudo, Huacareta, Muyupampa and Boyuibe. There are no "organized" downstream water users anywhere else, so in no other places will water users contribute to the funds. In all of these towns though, there is the capacity to contribute, and in some, e.g. Abapo and Monteagudo, users have already demonstrated a willingness to contribute. In other Bolivian towns where similar schemes have been implemented, the increased tariffs range from a flat 1 Boliviano per user per month in El Torno, to a 10% increase in Mairana.

beneficiaries: (i) climate-resilient agriculture and drip irrigation, (ii) organic honey production and commercialization, (iii) selection and management of orchards, and (iv) improved cattle management. Upstream communities will choose from a "menu" of incentives within these four areas. Municipal governments<sup>8</sup>, in collaboration with indigenous authorities (the "*Capitanías*"), will distribute the productive inputs.

- 2.7. The demand-side market potential and commercialization strategies for the agricultural products which will be prioritized will be assessed through community-specific market studies. The findings of the demand-side market studies will inform the preparation of the community development plans for each of the villages included in the scope of the project.
- 2.8. Economic effectiveness of the ACMT model. As an indicator of the value proposition of an ACMT model in the Chaco might be, preliminary studies estimated the average cost of protecting forest in the Gran Chaco under the model at \$4/hectare/year, of which ~\$3 went to the landowner and \$1 covered admin and set-up costs. By way of comparison, the estimated cost of forest protection Mexico, Costa Rica and Ecuador, through mitigation-focused payments for environmental services (PES) to landowners range between \$30 and \$50 per ha, suggesting that Bolivia's ACMT model can protect forests far more cost-effectively than other alternative schemes.
- 2.9. <u>Forest Conservation</u>. The project will also protect an area of 30,000+ ha of upper watershed forests, which will also be assessed for their potential to generate additional economic benefits for target communities from protection of forest carbon, in line with the local Bolivian concept of *"Acuerdos de Complementariedad con la Madre Tierra"*. Finally, this project will develop a training of trainers program to allow for further replication and transfer of expertise in the design and implementation of ACMTs to municipalities elsewhere in Bolivia and in neighboring countries.
- C. Components

# Component I: Institutional capacity building and operationalization of Water Conservation Funds. (MIF: US\$ 87,017; Counterpart: US\$ 58,938)

2.10. The objective of this component is to work with the targeted municipal governments, indigenous community governance structures and water user groups to develop the institutional fabric necessary for the short and long term management of water resources. In particular, this component is aimed at assessing the existing capacity and needs of municipal and indigenous governance institutions, including water provision structures such as municipal businesses or water cooperatives. Based on this assessment, through this component, the project will provide legal and technical support to the targeted municipal and indigenous institutions on how to best structure, operationalize and manage the Municipal Water Conservation Funds (MWCFs). Additional legal support will be provided to facilitate the inclusion of the ACMT model within the Municipal Statutes (*Cartas Organicas Municipales*) of the targeted municipalities.

<sup>&</sup>lt;sup>8</sup> Some jurisdictions, such as Charagua, are completely governed through indigenous governance structures and do not have municipal governments.

- 2.11. The component will include the following activities: (i) awareness raising activities for representatives of municipal and indigenous governance structures. This will ensure that adequate installed capacity is present in water providers to manage the scarce water resources available and to manage the MWCFs where these are established within the water providers' governance structure; (ii) provision of legal and technical support and training to local governance structures and water providers on the design and operationalization of the MWCFs. This is needed since existing governance institutions and water providers generally lack the specific technical expertise to design and manage MWCFs (iii) provision of legal support for the inclusion of water conservation, including through ACMT schemes, in the municipal statutes of the targeted municipalities. This will provide legal basis for the municipalities to contribute part of the municipal budget to the local MWCF.
- 2.12. Products of this component will include the following: 20 staff from water provider organizations trained in water resources management; 10 ten-year agreements between municipalities and local water providers signed; 10 Municipal Water Conservation Funds are established, operational, and ready to receive financial contributions.

# Component II: Climate compatible agriculture capacity building program. (MIF: US\$199,188; Counterpart: US\$ 30,232)

- 2.13. The objective of this component is to support the targeted upstream communities in achieving climate-compatible economic development, maximizing the benefits of the agricultural materials provided as incentives for the changes in watershed-land use promoted by the project.
- 2.14. The activities of this component will include the preparation of community-specific, community-driven development plans which will provide a blueprint for the operationalization of rural productive activities in any of the four key areas: (i) climate-resilient agriculture and drip irrigation, (ii) organic honey production and commercialization, (iii) selection and management of orchards, and (iv) improved cattle management. These development plans will be prepared in consultation with the beneficiaries, taking into account indigenous cultural elements and traditions, current and projected changes in the climate of the region and market/commercial opportunities of the activities/products to be selected. It will also take into consideration, and build upon, the work done by other development organizations (FAO, PASOC and Vision Mundial) such as in climate resilient agricultural through native crop regeneration in the Chaco.
- 2.15. Products of this component include more than 1,000 local people trained in the four areas identified above, of whom at least 100 people will be trained in the honey value chain, honey-based product development (food, cosmetic and well-being products such as propolis-based treatments). In addition, this component will generate 10 demand-side market assessments (one for each municipality included in the project), outlining commercialization strategies for the agricultural products being prioritized and presenting recommendations on engagement strategies with specific potential customers.

Component III: Implementation of the Complementary Agreements with Mother Earth (ACMT). (MIF: US\$ 431,360; Counterpart: US\$ 375,422)

- 2.16. The objective of this component is to provide support to the upstream farmers for the implementation of the *Acuerdos de Complementariedad con la Madre Tierra*. The implementation of the ACMT will provide the framework to minimize disturbance to upper watersheds, contributing to the project objectives of preserving water quantity and quality for downstream users.
- 2.17. The activities of this component include the following: (i) upstream beneficiaries consultation process to define the specific incentive measures to be delivered to each participant of the ACMT scheme, (ii) design of a GIS database for the areas included in the project and training of field technicians for the data collection, (iii) GPS field mapping and inventory of land and farming parcels participating in the scheme, (iv) purchase and distribution of the material for enhanced and climate-compatible agricultural activities, (v) design and delivery of the water conservation awareness campaign for downstream users, (vi) provision of community-level technical and legal support for the creation of upstream water-recharge forest areas, and (vii) design and roll out of monitoring and verification protocols.
- 2.18. The main products of this component include 5,000 people participating in awareness raising activities on water conservation and hydric processes, 3,000 upstream community members participating in *Acuerdos de Complementariedad con la Madre Tierra*, and the establishment of a monitoring system and detailed maps to verify participants' ongoing compliance with the AMCT agreements.

Component IV: Integrating "Acuerdos de Complementariedad con la Madre Tierra" of the Chaco into the Bolivian government's "Joint Mitigation and Adaptation Mechanism". (MIF: US\$ 35,251; Counterpart: US\$ 6,168).

- 2.19. The Bolivian government presented a proposal, the "Sustainable Life of the Forest" at the UNFCCC COP17 in Durban, and as a result, UNFCCC Decision 2/C.P. 17, paragraph 67, asserts that alternatives to REDD+ that focus specifically on supporting and strengthening forest governance can be developed. Bolivia later refined this concept to become the "Joint Mitigation and Adaptation Mechanism for the Integral and Sustainable Management of Forests" ("JMA"). This Mechanism is founded on the dual importance of forests in adaptation and mitigation, and on the principle of non-commodification of nature. The current draft of the Mechanism design document includes ACMT as an example of the type of project that could be eligible to form part of Bolivia's alternative to REDD+.
- 2.20. The objective of this component is to design and pilot a new form of integrated Complementary Agreement that in addition to protecting upper watershed forests, tries to maximize the carbon sequestration capacity of the landscape, while increasing the capacity of climate adaptation/resilience of the participating stakeholders. The Agreements will seek to be eligible as part of the Bolivian Government's JMA. Previous versions of municipality reciprocity based conservation agreements depend on downstream water users willingness and ability to contribute to some of the cost of upper watershed conservation measures. This component will map the feasibility and

conditions for the implementation of *Acuerdos de Complementariedad* in forest areas where no organized group of downstream water users exist. In these areas, which are often very rural and impoverished, potential contributors to the maintenance of environmental functions are municipal governments and actors with an interest in mitigating and promoting adaptation to climate change. The implementation of this component will provide an ideal opportunity to pilot the Bolivian Government's JMA, while widening the scope of where reciprocity-based conservation schemes can be implemented to areas where no organized groups of downstream users exist.

- 2.21. The component will include the following activities: (i) develop a local carbon monitoring system that calculates and monitors the mitigation impact of project activities, (ii) select areas to be monitored within the territory of a pilot municipality, (iii) bring together stakeholders to design and manage a financing mechanism to facilitate and channel investments by private or public sector investors in carbon sequestration (e.g. Municipal Carbon Conservation Funds).
- 2.22. Products of this component include a local carbon monitoring system, establishment of a financial mechanism to facilitate and channel investments by private or public sector actors in carbon sequestration (e.g. Municipal Carbon Conservation Funds), and two municipalities piloting carbon storage-based *Acuerdos de Complementariedad con la Madre Tierra*.

# Component V: Knowledge Management and Communications Strategy. (MIF US\$ 126,260; Counterpart US\$ 34,560)

- 2.23. The knowledge gap this project seeks to reduce is (i) how to successfully scale up smallscale experiences with ACMTs to effectively engage indigenous people; (ii) how to costefficiently generate institutional and technical capacity in the different stakeholders involved to facilitate the scale-up process; and (iii) how to effectively complement new and existing incentive schemes for watershed and ecosystem services conservation with forest carbon storage mechanisms, so as to increase the economic/productive benefits for the targeted communities. Incentive based watershed conservation schemes have been used in other regions of Bolivia to help small numbers of people (~2,000 upstream families over the last ten years), but it has yet to be demonstrated if and how this tool can be taken to scale, in order to help provide clean and sufficient water to tens of thousands of families.
- 2.24. The objective of this component is to capture lessons learned during and after the project and disseminate them with strategic audiences capable of replicating this model elsewhere. Interested audiences include key actors in the public policy arena such as the Bolivia's Ministry of Planning and Development, the UNFCCC negotiating team, the Authority for Mother Earth, the Departmental Governments of Santa Cruz, Tarija and Chuquisaca, and other potential users of the model such as local institutions in Bolivia or elsewhere in LAC, development practitioners and private water providers.
- 2.25. The products of this component are (i) a project fact-sheet, to be updated annually by the Executing Agency; (ii) a thematic study detailing how the ACMT model can contribute to the operationalization of the Bolivian JMA and to the empowerment and economic development of indigenous communities in the Chaco; (iii) a how-to-guide

presenting the modalities for implementing the ACMT model. The how-to-guide will form the basis for the development of a virtual training module to be made available on line, and an in-person training curriculum that will be used for the training of additional municipalities not included in the scope of implementation of this project (the "ACMT School" program). Finally, this project will contribute to (iv) a comparative analysis that will present aggregate results and findings from the MIF ABG's portfolio of projects testing models for effective watershed conservation, including experiences in incentivebased watershed management from projects in Panama (PN-M1026) and Guatemala (GU-M1042). In addition, the project will aim at engaging with the *Asamblea de Pueblos Guaraní* to identify knowledge product(s) that the *Asamblea* may consider useful as an additional outcome of the project. Channels for the transfer of the knowledge products will include on-line material, such as the virtual training material, as well as in-person channels such as the closing workshop and the project's own training program, the ACMT School, which is expected to be rolled out in at least 10 Bolivian and 10 non-Bolivian Latin American countries.

## D. Project Governance and Execution Mechanism

- 2.26. The project will be implemented through a Project Implementation Unit (PIU), to be established within the Executing Agency's structure. The main implementation activities will be carried out from an office in the town of Camiri. The PIU will be comprised of a Project Director, in charge of the overall delivery of the expected products and results, the external representation of the project, and with ultimate responsibility for the general compliance with the reporting and procurement requirements vis-à-vis the MIF. The Project Director will be assisted by a Project Technical Coordinator, in charge of the management of all project's activities and project staff across the 10 municipalities, and by a Project Assistant, in charge of the administrative and accounting support.
- 2.27. One year before the project ends, a **sustainability consultation** will be held with all key stakeholders to identify specific actions needed to ensure the continuity of the project's activities after the project funding has been expended.

## E. Sustainability

2.28. The project will develop a funding structure that ensures that the 10 ACMT schemes are self-sustainable. By project-end (4 years), each MWCF is expected to be able to financially support upstream communities and their forest and watershed conservation activities indefinitely with no need for further donor support. Evidence exists that this model works: for example the Comarapa ACMT program in the Santa Cruz valleys, initiated in 2007, is now almost entirely self-funded. Seed funding provided by the MIF will help getting the schemes off and running so that local resources, primarily grants from the municipal governments, and the expected increases in water tariffs, can fully kick in within 2 years, and provide long term financial sustainability for upstream conservation.

## F. Experience and Lessons Learned from MIF or other Institutions

2.29. Fundación Natura Bolivia has been developing the Reciprocal Watershed Agreements model, a form of ACMT, for more than ten years. In 2003, Natura facilitated a first agreement in the Santa Cruz region, whereby 6 downstream irrigators agreed to reward

upstream farmers with a beehive, and training on how to produce honey, for each 10 hectares of forest conserved. Since the first ACMT was developed in Los Negros, 13 Municipal Governments and Water Cooperatives in the "Valles Interandinos" of Santa Cruz have adopted similar models. This experience has proven that the ACMT model can be very cost-effective when compared to other countries' Payment for Watershed Services (PWS) schemes, as the focus is not on paying for the full opportunity cost of conservation but on promoting new social norms on the value of forest for society<sup>9</sup>. The MIF is currently testing innovative models to provide incentives to maintain sound environmental services in Panama and Guatemala, both of which will contribute to a common knowledge product to inform ABG's incentives for watershed services approach.

- 2.30. Lessons learned by the Executing Agency in setting up Municipal Water Conservation Funds in Bolivia over the last 10 years demonstrate that users of environmental services (water quality/quantity or flood mitigation) will only contribute if three constraints can be resolved:
  - a. Lack of a credible downstream institution to ensure that service users will contribute equitably to the scheme
  - b. Lack of trust by downstream users that payments to upstream farmers would actually lead to conservation of water sources
  - c. Discussions and presentations cannot be one-off events: capacity building and promotion must be continuous, providing a sense of trustworthiness and impartiality.
- 2.31. A key goal of the project is to resolve these constraints by developing local institutions, convincing downstream users to contribute to municipal water funds, and training municipal technicians in the installation and up-keep of reliable monitoring systems to demonstrate to buyers that water sources are being conserved (i.e. they are getting what they pay for).
- 2.32. Another lessons learned is that strong donor and NGO support of environmental incentive schemes is important for ensuring equity especially in the context of insecure land tenure, weak local institutions, and inequitable or unreliable public enforcement capacity (equitable in the sense that the most well off landowners or developers don't capture all or most of the benefits)<sup>10</sup>.
- 2.33. Additional relevant lessons can be extracted from past projects implemented with European Union funding and led by a consortium of organization including the UN's Food and Agriculture Organization (FAO), focusing on food security drought resilient

<sup>&</sup>lt;sup>9</sup> Source: Nigel Asquith (2015), Governing the Commons through Reciprocal Watershed Agreements: an alternative to Payments for Environmental Services (forthcoming).

<sup>&</sup>lt;sup>10</sup> Sources : Scherr et al (2006), Bishop et al (2006), Chomitz et al (2006), cited in Forestry Briefing 16, Forest Policy and Environment Programme, Overseas Development institute, 2006.

crops in the Bolivian Chaco<sup>11</sup>. These experiences highlighted the following lessons learned:

- a. It is important to involve the beneficiary communities early on in the decision making process relative to the selection of the measures to be adopted;
- b. Given rural illiteracy levels, it is key to provide explanatory and background material in simple graphic format to the extent possible. Additionally, adopting an intercultural and hands-on approach to training can lead to more effective training results;
- c. Incentivizing the participation of women in the project consultations is key to ensure community buy in, and it is important to ensure this while respecting the traditional customs, roles and indigenous authority; and
- d. It is important to adjust the project activities to the community life cycle, such as sowing and harvest periods.

## G. MIF Additionality

- 2.34. <u>Non-Financial Additionality</u>. As this project is part of a larger strategy to test and draw lessons from different models for watershed conservation, the MIF will play a key role in collecting, comparing and organizing information and learnings from this set of projects. In doing this, the MIF will be able to leverage its wide-ranging experience working with poor and low-income agricultural producers and indigenous populations. Also the MIF's convening power will facilitate the collaboration between public and private actors, and ensure equity in the distribution of project benefits for men, women, poorest beneficiaries, and indigenous families. Finally, the MIF will be key in complementing the role of the local implementing agencies in disseminating the projects' results to LAC regional audiences, beyond to the national context.
- 2.35. <u>Financial Additionality.</u> MIF funding is necessary to leverage other donor's fragmented funds and kick-start the program before revenues from the downstream water users can begin to flow towards upstream landowners. Also, no other sources are available to cover for the costs of developing the training tool for the model to be replicated in areas after the project's end.

## H. Project Results

2.36. The key result to be achieved by the project is the establishment of ACMT frameworks in at least 10 municipalities across the Bolivian Chaco. This will result, in turn, in improved water quality and quantity for downstream users and improvements in the efficiency of land-use behaviors in upstream farmers. Specific results of this project will include (i) 10 new or strengthened Water Funds that benefit both upstream and downstream people (MIF Corporate Result Framework (CRF) number: 160100), (ii) 100

<sup>&</sup>lt;sup>11</sup> These include (i) the "*Reducción del Impacto de Sequías e Inundaciones en Municipios y Comunidades Guaraníes en el Chaco Boliviano, Departamento de Santa Cruz*" project, financed by the European Union and implemented between 2011 and 2012 by a consortium of organization including the UN's Food and Agriculture Organization (FAO), Acción contra el Hambre, CARE, Centro AGUA, and COOPI; and (ii) a series of Round Tables organized by the FAO through the program GENOI, a short term emergency project (1.5yr), which ran until October 2014, aimed at reintroducing traditional agro-practices in 21 demonstration fields across the Chaco.

communities with strategic, climate-compatible, community development plans, (iii) 200% increase in number of women on Water Fund boards (prior to project: 10%; after project: 35%), (iv) 15,000 water users contributing to Municipal Water Conservation Funds (prior to project 0, after project 15,000), (v) 15,000 downstream users with access to an improved water source (CRF:220700), (vi) 300 upstream farmers that have adopted new practices to conserve water sources (CRF:230100), (vii) 1,000 upstream farmers receiving training for additional income-generation activities (CRF:130100), (viii) 30,000 hectares of land conserved under ACMT and/or municipal protected areas (CFR:240100), (ix) 20 staff from water providers trained in water management practices (CRF: 110100). Metrics n. 4, 5, 6, 7, will be disaggregated by gender and ethnicity.

## I. Project Impact

2.37. The project will produce positive impacts for both downstream water users and upstream farmers. Downstream communities will have improved access to water resources in terms of both quality and quantity, as well as institutional strengthening in municipal water provision services and water conservation planning. Better water quality will also improve health conditions and reduce water-borne diseases in communities that relay on water from upstream watershed who participate in the ACMT schemes. Upstream communities will benefit through the provision of incentives for the development of climate-compatible agricultural activities. Project impacts for upstream communities will include strengthened technical knowledge on water conservation and productive activities, increase in income, and enhanced resilience to the current and expected impacts of climate change. Specific impacts from the project will include: (i) Upstream agricultural producers with annual income growth of 7.5% on average (CFR: 330101), (ii) 15,000 downstream users with improved water quality (CFR:310401), (iv) approximately 1.5 million tons of stored carbon through sustainable forest management and conservation in water sanctuary areas established through the project (CRF: 340100).

## J. Systemic Impact

2.38. The project will contribute to the creation of new public-private institutions for the management of water resources (i.e. the Water Conservation Funds), thus contributing to MIF's CRF number 450300<sup>12</sup>. Through the establishment of a new legal framework (3,000 new standardized contracts) for the protection of upstream land, the project will also contribute to CRF number 450200<sup>13</sup>. Finally, the project will contribute to CRF number 450100<sup>14</sup>, as it will replicate and scale up the ACMT model to the Gran Chaco. By systematizing a model which can be more cost-effective than national payment for environmental services (PES) schemes, the potential for implementation in the LAC region is increased.

<sup>12</sup> Number of key public or private actors or institutions changing or applying new practices based on MIF-sponsored projects or knowledge

<sup>13</sup> Number of new or improved policies, regulations, or legal frameworks established with MIF support

<sup>14</sup> Number of MIF-introduced models scaled or replicated

### **3. MONITORING AND EVALUATION STRATEGY**

- 3.1. <u>Baseline:</u> The project will have a comprehensive baseline. Natura technicians will collect baseline measures of water quality<sup>15</sup> and use satellite imagery and scientific surveys to assess land-use and landscape-level habitat status.<sup>16</sup> In order to assess socioeconomic impacts of the project, the EA will hire local data collectors to administer household surveys in upstream communities before the project begins to gather information about income, assets, community involvement, and perceptions about the environment. These surveys have been developed and piloted with support from researchers at Harvard University and the Massachusetts Institute of Technology (MIT). Household data will be disaggregated by gender and by ethnicity.
- 3.2. <u>Monitoring:</u> The project will use the Executing Agency's existing monitoring and evaluation system to track, monitor and report project results and impact. The executing agency uses sophisticated, but easily deployable instruments for collecting and monitoring socio-economic, geographic and scientific data, namely short household surveys, satellite imagery, and water test kits. They follow data collection protocols that clearly define the data to be collected and specify how, by whom, and with what frequency data will be collected. Natura stores and organizes information using Excel and Access. To ensure data quality, Natura employs double data entry and has a system of user permissions to control access to databases.
- 3.3. The Executing Agency will form a team responsible for collecting, tabulating, monitoring and analyzing project data. This team will be composed of a monitoring specialist, and GIS and field technician that monitor forest cover, cattle impacts and water quality, plus surveyors, tabulators, and at least one consultant dedicated to data analysis.
- 3.4. <u>Evaluation:</u> This project has been designed as a randomized control trial (RCT) at the community level. The universe of potential ACMT schemes is 230 upstream communities (see Annex I). Of these 230 communities, about 100 will be randomly selected through a public lottery to be offered the RWA model during the four years of the project (the treatment group). All community residents in the treatment group will be invited to participate as a community or as individuals in a scheme that compensates them in return for leaving their forests intact and preventing their cattle from grazing along streams. About 100 communities (control). The evaluation will look at effects of the model on land use (measured using satellite imagery and geo-referencing forest cover and other characteristics), water quality (recording fecal chloroform load, oxygen levels, etc.) and sources and amount of income and assets. Both treatment and control communities will receive the same basic information session, during which they learn about water quality and cattle impacts. Therefore, observed treatment effects can be

<sup>15</sup> To quantify this process, and measure changes based on project interventions, we will measure: water flow as it relates to rainfall (we expect that for a given rainfall, a successful conservation/restoration intervention will increase flow), water turbidity (we expect that cattle exclusion will reduce turbidity) temperature (we expect that less cattle leads to increased regeneration and hence vegetation cover close to stream, which eventually shades the water source, leading to reductions in water temperature), and fecal coliforms (we expect that cattle exclusion reduces coliform content in downstream water supplies).

<sup>16</sup> Habitat loss, and changes in land cover from forest to non-forest is the major threat to water provision at project sites. Vegetation cover change will be assessed using remote sensing of Rapideye satellite imagery (5m resolution). Abundance and diversity surveys of amphibians, dung beetles, and aquatic macro invertebrates will be used as proxies for terrestrial and freshwater biodiversity.

attributed to the presence of incentives contracts, not to information differences between treatment and control communities (see Annex III for further technical details).

- 3.5. This RCT will address knowledge gaps about the effectiveness of incentive schemes in fostering the conservation of watersheds, forests, and water resources. Governments and REDD investors have hypothesized that making monetary transfers to landowners will lead to more forest conservation and carbon sequestration, and less poverty; however, there is no experimental evidence about the efficiency and effectiveness of such incentives.
- 3.6. The Reciprocal Watershed Agreement model is an incentive scheme that has the potential to work where land in the upper watershed (the area of water recharge) is held communally or in smallholdings by low-income people, and where downstream water users have an interest in ensuring water quality and quantity. The Executing Agency has partnered with MIT's Poverty Action Lab (J-PAL) to conduct a RCT of the watershed agreement model in the Bolivia's Rio Grande Protected Area (Los Valles Cruceños). An RCT in the Bolivian Chaco would complement the Los Valles RCT and help answer questions of external validity. The Chaco differs from Los Valles on many of the measures expected to influence outcomes climactic conditions (in the Chaco communities are highly water stressed, while in Los Valles water is more abundant), cultural norms, and the nature of land ownership (in the Chaco much of the land is held communally vs. individual small holdings in Los Valles).
- 3.7. The evaluation seeks to answer the following questions about the effectiveness of the watershed agreement model: To what extent does the opportunity to receive an incentive contribute to changes in land-use upstream? To what extent does the opportunity to participate in these agreements contribute to improved water quality? How do livelihood activities promoted through in-kind incentives contribute to sources and amount of income and assets?
- 3.8. The RCT will also provide information that can help the Bolivian government perfect the ACMT model by assessing whether take-up and compliance with watershed agreements differ according to community values, land-tenure arrangements, and incentive and supervision mechanisms. The project will use multiple treatment arms to assess which incentives work best e.g. payments to individuals versus payments to communities.
- 3.9. A principal investigator will be selected to direct the technical aspects of the impact evaluation. Supplemental funding will be sought from the impact evaluation account to hire the principal investigator and fund the endline data collection. Baseline data collection costs will be covered by this project (see section 4.1). The impact evaluation is expected to be completed in 2021.
- 3.10. <u>Closing Workshop.</u> The Executing Agency will organize a closing workshop at the appropriate time before the end of the project to assess along with other key stakeholder the outcomes achieve, identify additional tasks to guarantee sustainability and identify and disseminate lessons learned and best practices.

## 4. COST AND FINANCING

- 4.1. The project has a total cost of US\$1,933,062, of which US\$1,259,846 (65%) will be provided by the MIF, and US\$673,215 (35%) by the counterpart. The execution period will be of 48 months and the disbursement period will be of 54 months.
- 4.2. <u>Retroactive Recognition of Counterpart Funds.</u> Retroactive recognition of expenditures incurred by the counterpart on or after the date of project eligibility (22 May 2014) is requested in the amount of up to US\$60,000 from the local cash contribution.

Project Components	MIF	Counterpart	Total
Component 1 - Institutional capacity building and operationalization of Water Conservation Funds.	87,017	58,938	145,955
Component 2 - Climate compatible agriculture capacity building program.	199,188	30,232	229,420
Component 3 - Implementation of the Complementary Agreements with Mother Earth.	431,360	375,422	806,782
Component 4 - Integrating "Acuerdos de Complementaridad con la Madre Tierra" of the Chaco into the Bolivian government's "Joint Mitigation and Adaptation Mechanism".	35,251	6,168	41,419
Component 5 - Knowledge Management and Communications Strategy	126,260	34,560	160,820
Sub-total	879,076	505,320	1,384,396
Execution Components			
Project Director	86,400	46,359	132,759
Regional Coordinator (Camiri)	52,800	27,873	80,673
Administrative support	52,800	27,873	80,673
Legal Support	-	2,670	2,670
Accounting procedures	3,500	-	3,500
Office expenses for the Project Office (Camiri)	-	26,400	26,400
Laptops	3,000	-	3,000
GIS and image processing computer	4,150	-	4,150
Office supplies (Camiri office)	8,400	-	8,400
Vehicle taxes and insurance	-	6,720	6,720
Accounting support	14,720	-	14,720
Sub-total	225,770	137,896	363,666

Monitoring and Supervision Components			
Baseline	30,000	30,000	60,000
Mid-Term Evaluation	25,000	-	25,000
MIF HQ supervision	20,000	-	20,000
Final Evaluation	25,000	-	25,000
Ex post reviews	25,000	-	25,000
Contingencies	30,000	-	30,000
Sub-total	155,000	30,000	185,000
Grand Total	1,259,846	673,215	1,933,062
%	65%	35%	100%

## 5. EXECUTING AGENCY

- 5.1. The Fundación Natura Bolivia (Natura) will be the Executing Agency of this project. Natura, a Santa Cruz, Bolivia-based non-profit has more than 10 years' experience implementing development projects and undertaking research on environmental functions. Natura's mission is "to help communities protect their water supplies through conservation of their forests". Natura focuses on developing institutional architecture by which water users feel confident that if they setup and invest in a Municipal Water Conservation Fund, their contributions will have a real and immediate impact in conserving water-producing forests. Natura works with water/hydroelectric cooperatives, irrigators and municipal governments to develop sustainable conservation finance mechanisms.
- 5.2. Natura has an annual operating Budget of around USD1.3 million, employs 50 staff, and counts on a full system of financial and accounting practices and controls, which is annually audited. From 2005-7 Natura led the Bolivia component of a research project funded by the UK's Department For International Development (DfID) to increase understanding of the role of incentives in the maintenance of watershed function in order to improve livelihoods, and has more recently been funded by the European Commission and COSUDE.
- 5.3. Counterpart funding for this project has been secured from the UK Government's Darwin Initiative (\$450,000), the MacArthur Foundation (\$100,000), and the Swiss Re Foundation (\$100,000). One of the project's goals is to leverage local funds to support the initiative in the long term. To this end, Bolivian authorities have already shown that they are willing to support the concept. As a way of comparison, local governments are already providing 70-90% of compensation payments in existing ACMT funds in the Santa Cruz valleys.

5.4. Natura will establish a Project Implementation Unit (PIU) and the necessary related structure to effectively and efficiently execute project activities and manage project resources. Natura will also be responsible for providing project progress reports.

## 6. PROJECT RISKS

- 6.1. <u>Environmental Risks</u>: Drought and food security is one of the greatest pressures Guarani communities face. Particularly the increased occurrence of severe extreme weather events which could be exacerbated by climate change could undermine the possibility for the project to produce expected results. In addition, another type of environmental risk lays in the potential pollution of water sources, or deforestation, resulting from illegal settlements, oil and gas extraction, or other actions taken by actors not directly involved in the project. The climate variability risks will be mitigated through the provision of training and materials to upstream communities to facilitate the adoption of climate compatible agricultural practices that increase resilience to climate change. The risk of pollution from sources external to the project scope is more difficult to mitigate at the project level, but monitoring will ensure that the incidence of such events is "discounted" from the monitoring and assessment of the project results.
- 6.2. <u>Institutional risks (lack of institutions)</u>: The minimization of this risk is one of the main objectives of the project. By providing institutional strengthening, including, for example, increasing the number of women on the boards of water funds and cooperatives, land management will improve and interest in conservation will increase. Furthermore engaging indigenous community governance structures such as the APG and local *Capitanías* from the design and throughout the implementation of the project also furthers the support and appropriation of the project by Guarani institutions.
- 6.3. <u>Sustainability risks</u>: Downstream water users' willingness and capacity to contribute will not be able to meet the needs of upstream landowners. This risk will be mitigated by in depth stakeholder analysis. In addition, the ACMT model mitigates this risk by focusing on institutional strengthening and reciprocity rather than compensation for the full opportunity cost of conservation efforts.
- 6.4. <u>Market risk</u>: While production may increase, producers may find challenges in commercialization, successfully inserting themselves in the market. Training in commercialization will increase the skills of producers and strengthen their capacity for income generation.

## 7. ENVIRONMENTAL AND SOCIAL EFFECTS

7.1. This operation was screened and classified as required by the IDB's safeguard policy (OP-703). Given the limited impacts and risks, the proposed category for the project is C. The Committee on Environmental and Social Impact (CESI) reviewed the operation on Nov 21<sup>st</sup>, 2013 and gave its approval without further review or action needed.

8.1. **Disbursement by Results and Fiduciary Arrangements.** The Executing Agency will adhere to the standard MIF disbursement by results, procurement and financial management arrangements specified in Annex 8.

## 9. INFORMATION DISCLOSURE AND INTELLECTUAL PROPERTY

- 9.1 **Information Disclosure.** Project information, with the exception of any confidential private sector information and individual personal information, will be publicly disclosed once the project is approved, in accordance with the Bank's Access to Information Policy.
- 9.2 **Intellectual Property.** The Bank will own all intellectual property rights related to the project. It may, at its discretion, grant a non-exclusive and royalty-free license for noncommercial purposes for the dissemination, reproduction and publication in any media of any such work exclusively owned by the Bank. The Executing Agency shall ensure that all contracts entered into with consultants during the execution of the project include provisions granting the Bank ownership rights to all copyright, and any other intellectual property rights.

## TABLE I – Upstream Communities in the Chaco Piedmont Priority Municipalities

Priority Municipalities							
Department	Municipality	ipality # upland as per communities 2001 census survey		Families already interviewed for baseline survey	Communities with pilot ACMT schemes	Families with pilot ACMT schemes	
Chuquisaca	Huacareta	32	1315	-	-	-	
Chuquisaca	Huacaya	10	401	25	-	-	
Chuquisaca	Monteagudo	54	2036	587	11	36	
Chuquisaca	Villa Vaca Guzmán	37	727	201	8	43	
Santa Cruz	Boyuibe	1	6	22	1	1	
Santa Cruz	Cabezas	12	154	-	1	11	
Santa Cruz	Gutiérrez	21	537	-	1	97	
Santa Cruz	Camiri	15	405	243	-	-	
Santa Cruz	Lagunillas	20	767	-	-	-	
Santa Cruz	Charagua	28	1113	-	-	-	
TOTALS		230	7461	1078	22	188	

#### **BO-M1067 LOGICAL FRAMEWORK**

Increase incomes, and	Indicator 1	Month 0	Month 12	Month 24	Month 36	Month 48	Presence of weather events such as
diversify and strengthen the means of sustenance for upstream communities.	Annual increase in average incomes (CRF 320100)	0%	0%	7.5%	7.5%	(Cumulative) 24.0%	drought, frost, and wind storms, which have a negative impact on agricultural/cattle production.
Improve water access for downstream communities. Reduce CO2 emissions	<i>Formula/Definition:</i> Households participating in productive initiatives have increased their average annual income by 7.5% above the baseline.	Source: Baseline;	end line				
connected to changes in land	Indicator 2	Month 0	Month 12	Month 24	Month 36	Month 48	Household-level migration based on
use.	Number of households with positive appual income	Baseline	(Cumulative) 250	(Cumulative)	(Cumulative) 1200	(Cumulative)	socioeconomic factors. Lack of interest
	growth (CRF 330101)	U	250	,	1200	1500	part of households. Other initiatives or
	Formula/Definition: Number of households participating	Source: Baseline;	end line	•		•	projects in communities demand
	in productive initiatives that have increased their average						attention from households, decreasing
	annual income above the baseline.						participation and adoption.
	Indicator 3	Month 0	Month 12	Month 24	Month 36	Month 48	Pollution issues along the water
		Baseline	(Cumulative)	(Cumulative)	(Cumulative)	(Cumulative)	pipeline's path, from the water intake
	Number of downstream water users with access to better- quality water (310401)	0	1000	6000	10,000	15,000	to users' faucets downstream.
	<b>Formula/Definition:</b> Number of water users with access to water with lower fecal coliform loads than what was measured when the project started. (The number of users will be defined using the number of active meters that the cooperative has or the number of users under contract with the <i>Empresa Pública Social de Agua y Saneamiento</i> (EPSA) or the cooperative.)	Source: Tests of j seasons of the ye	fecal coliform load ar, and every year	's in downstream . . EPSA or coopera	supplies when projec tive records.	t starts, during two	
	Indicator 4	Month 0	Month 12	Month 24	Month 36	Month 48	Presence of forest fires during dry
		Baseline	(Cumulative)	(Cumulative)	(Cumulative)	(Cumulative)	seasons; human-induced fires,
	Tons of greenhouse gas (CO2 equivalent) emissions avoided (340100)	0	0	0	0	0.75 million tons	deforestation practices resulting from oil company activities, illegal
	<i>Formula/Definition:</i> Tons of greenhouse gas (CO2 equivalent) emissions avoided or reduced due to changes in deforestation and slash-and-burn practices.	Source: Consulta	nt's report to quar	ntify emissions av	oided or reduced		settlements; extreme weather events

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	Indicator 5	Month 0	Month 12	Month 24	Month 36	Month 48	National/departmental or municipal
		Baseline	(Cumulative)	(Cumulative)	(Cumulative)	(Cumulative)	policies focus on other priorities and
	Number of policies, regulations, management plans, or legal frameworks influenced/established (450600)	0	0	1	2	3	are against conservation.
	Formula/Definition: Number of national, departmental, or municipal policies or instruments prepared or supplemented with elements that promote and facilitate the implementation of Complementarity Agreements with Mother Earth (ACMTs) or that establish the creation of Protected Areas.	<b>Source:</b> National Areas, manageme	and departmenta ent plans, nationa	l laws, municipal l laws, mechanisi	statutes; laws that cro ms, instruments	eate Protected	
Adoption of Complementary	Indicator 1	Month 0 Baseline	Month 12 (Cumulative)	Month 24	Month 36 (Cumulative)	Month 48	Lack of willingness on the part of
Earth (ACMT) between downstream water providers,	Number of water funds established or strengthened (160101)	0	2	5	8	10	cooperatives/EPSAs. Public decision- makers change. Conservation measures
users, and upstream communities in order to conserve water sources.	<b>Formula/Definition:</b> A water fund is considered legally established when there is an agreement signed by stakeholders, a bank account has been opened, and fund stakeholders make their contributions. This includes setting up a Board of Directors with representatives from all stakeholders and developing Operating Regulations.	Source: Agreeme	nt signed by stake	holders; Operati	ng Regulations for wa	ter fund	are not institutionalized by local parties.
	Indicator 2	Month 0	Month 12	Month 24	Month 36	Month 48	Weak internal financial regulations in
	Number of households with access to improved basic services (220700)	Baseline 1000	(Cumulative) 2000	(Cumulative) 5000	(Cumulative) 10,000	(Cumulative) 15,000	cooperatives or EPSAs may hinder disbursement of financial resources. Instability in governance. Weak
	Formula/Definition: Families that use water from a cooperative are participating in a water fund.	<b>Source:</b> Water receipts or bills include an amount for conservation of water resources. Tests of fecal coliform loads in downstream supplies when project starts, during two seasons of the year, and every year. EPSA or cooperative records.					financial management in local institutions.
	Indicator 3	Month 0 Baseline	Month 12 (Cumulative)	Month 24 (Cumulative)	Month 36 (Cumulative)	Month 48 (Cumulative)	Extreme events that endanger partnerships between upstream and
	Hectares conserved (CRF 240100)	0	7000	15,000	25,000	30,000	downstream populations.
	Formula/Definition: The number of hectares refers to the surface in hectares of primary or secondary forest that are detailed in the Complementary Agreement that the landowner signed. The hectares of forest protected under a municipal, departmental, or national law are also taken into consideration.	<b>Source:</b> Signed Co laws that create F	omplementary Ag. Protected Areas	reements with M	lother Earth; municipa	l or departmental	

Indicator 4	Month 0	Month 12	Month 24	Month 36	Month 48	During the dry season, forests face an					
	Baseline	(Cumulative)	(Cumulative)	(Cumulative)	(Cumulative)	increased risk of fire. Weather					
Number of persons who have adopted new land	0	500	1000	2000	3000	phenomena, like for example droughts,					
management practices for water conservation (210400)						force forest owners to keep the cattle					
						in the forest.					
Formula/Definition: The number of people who signed a											
Complementarity Agreement with Mother Earth, and are	and property-leve	l monitoring map									
conserving water in their land effectively, is established											
through monitoring of conservation areas, which consists											
of verifying agreement commitments via satellite or in-											
situ observation.											
In diantes of	Marsth O	Marsth 12	Marsh 24	Marsth 20	Marsth 40						
indicator 5	Recolino	(Cumulativa)	(Cumulativo)	WOILII 30	WOILII 48	Leaders and producers are change-					
	Buselille	(Cumulative)	(Cumulative)	(Cumulative)	(Cumulative)	because of labor migration. Presence of					
Number of agricultural and cattle producers who adopted	0	50	150	250	300	adverse weather events					
new technologies and practices (230100)						(drought/frost)					
	<b>6 5 1 6</b>										
Formula/Definition: Producers who have adopted new	Source: End-of-pr	oject monitoring	reports of produc	ctive initiatives implem	ented						
are these who signed an ACMT resolued supplies for											
strategic productive initiatives and implemented											
technologies and practices with technical advice. Whether											
a technology has been adopted is determined through											
end-of-project monitoring of practices that were											
implemented and maintained.											
Indicator 6	Month 0	Month 12	Month 24	Month 36	Month 48						
	Baseline	(Cumulative)	(Cumulative)	(Cumulative)	(Cumulative)						
Number of communities with ACMT community	0	25	50	75	100						
development plans prepared jointly with the executing											
agency.											
Formula/Definition: In communities where the project	Source: Plans sign	ned by all commu									
provides supplies to the community, the community and											
the authorities will jointly prepare a community											
development plan.											

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Manharith manification	Indicates d	Manth O	Marsh 12	Marsth 24	Marsth 20	Marsth 40	test of interest in resulting the signature			
work with municipal		IVIONTN U Basolino	Wonth 12	Wonth 24	WONTH 36	IVIONTN 48	Lack of interest in participating in			
groups to develop		Buseline	(Cumulative)	(Cumulative)	(Cumulative)	(Cumulative)	limited time. Public officials lack			
institutional capacity so that	Number of staff from water providers trained in water	0	5	10	15	20	willingness and availability			
unstream and downstream	source management practices (110100)	1					whilinghess and availability.			
residents can work together	Formula/Definition: Number of local downstream	1								
and solve their common	stakeholders (EPSA representatives, municipal officials)									
development problems.	who participate in events to share experiences and get									
	training on managing water sources, in-person or in									
	virtual training modules.									
	Indicator 2	Month 0	Month 12	Month 24	Month 36	Month 48	Weaknesses in the regulations or			
		Baseline	(Cumulative)	(Cumulative)	(Cumulative)	(Cumulative)	statutes of			
	Percentage of women in Boards of Directors of Municipal	10%	0	0	0	35%	cooperatives/municipios/capitanías,			
	Water Funds	1					which prevent women's participation			
	Formula/Definition: The Board of Directors of a	Source: Fund crea	ation regulations;	record establishi	ng the Board of Directo	rs and taking of	and gender equality.			
	Municipal Water Fund is made up of three or more	office.								
	parties, with delegates representing the									
	municipio/cooperative or EPSA/capitanía and other									
	interested parties. Women who belong to the board as									
	delegates are considered active participants in the funds.									
	Indicator 3	Month 0	Month 12	Month 24	Month 36	Month 48	Weak internal financial regulations in			
		Baseline	(Cumulative)	(Cumulative)	(Cumulative)	(Cumulative)	cooperatives or EPSAs may hinder			
	Number of water users who contribute to water funds	1000	2000	5000	10,000	15,000	disbursement of financial resources.			
		1					Instability in governance. Weak			
	Formula/Definition: Contributing to local funds means	Source: Water re	ceipts or bills inclu	financial management in local						
	that the cooperative or EPSA officially approved the	statements for the	institutions.							
	creation of a means of support to maintain and conserve	mentioning the po	ayments.							
	the water sources that supply water to the population.									
	Official records show whether payments will be fixed									
	amounts or percentages, and the form of payment.									
	Families are considered water users of a certain									
	cooperative when they have documentation to prove they									
	made contributions. There must also be a record that the									
	money collected from families has been transparently	1								
	deposited in the fund's account.	1								
		<u> </u>								

Work with local communities	Indicator 1	Month 0	Month 12	Month 24	Month 36	Month 48					
to develop and implement activities to generate sources of income and sustenance that use natural capital in a sustainable manner.		Baseline	(Cumulative)	(Cumulative)	(Cumulative)	(Cumulative)					
	Location-specific studies to determine best procution and commercialisation practices	0	2	2	2	2					
	<b>Formula/Definition:</b> Studies will identify territorial productive-commercial opportunities with a focus on agriculture resistant to climate change, honey production, fruit production, and cattle raising. Studies will provide input to develop trainings.	Source: Studies									
	Indicator 2	Month 0 Baseline	Month 12 (Cumulative)	Month 24 (Cumulative)	Month 36 (Cumulative)	Month 48 (Cumulative)	During certain seasons, the population's agricultural/cattle raising activities are extremely time- consuming, and producers may not attend training events. High demand for				
	Number of upstream agricultural producers trained in productive and commercial activities (CRF 130100)	0	100	500	750	1000					
	<b>Formula/Definition:</b> Aimed at agricultural producers located upstream, who receive supplies. Trainings will be intercultural, focused on production and marketing, and aligned with community development plans and territorial development plans.	<b>Source:</b> Lists of p	articipants				workers in activities outside communities (harvest times). Migration of heads of households to work in construction and other jobs in cities.				
Support upstream communities in implementing forest management agreements to maximize water production and reduce	Indicator 1	Month 0 Baseline	Month 12 (Cumulative)	Month 24 (Cumulative)	Month 36 (Cumulative)	Month 48 (Cumulative)	High demand for workers in activities outside communities (harvest times). Migration of heads of households to work in construction and other jobs in cities. Weather conditions that prevent				
	Number of people (upstream) who have become aware of water processes and conservation of water supplies.	0	500	1000	2000	5000					
disruption of water supplies.	Formula/Definition: Number of persons from forested water recharge areas who participate in events to offer/present the proposals for ACMTs.	Source: Lists of p	articipants at eve	access to communities.							
	Indicator 2	Month 0	Month 12	Month 24	Month 36	Month 48	Opportunity costs of forest				
	Number of upstream agricultural and cattle producers who receive compensation packages	Baseline 0	(Cumulative) 500	(Cumulative) 1000	(Cumulative) 2000	(Cumulative) 3000	conservation may be affected by the presence of hydrocarbon extraction				
	Formula/Definition: A compensation package refers to the delivery of goods that the forest owner or community receives for the hectares of forest under conservation pursuant to the conservation agreement signed. An agricultural producer is considered to have received a compensation package when: a) The beneficiary received materials, supplies, seeds, and others, and there is a signed record; b) The value of the incentive delivered has been determined and included in a financial report.	Source: Signed C	omplementary Ag	reements with M	other Earth; delivery/ı	eceipt records	land lease payments.				
	Indicator 3	Month 0	Month 12	Month 24	Month 36	Month 48					
	Monitoring system for ACMTs	Baseline	(Cumulative)	(Cumulative)	(Cumulative)	(Cumulative)	4				
I	ivionitoring system for ACIVITS	U	U	1	T	1					

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	Formula/Definition: Design and implementation of a monitoring system to verify that upstream participants are conserving the forest pursuant to ACMTs.	Source: Maps of p	parcels under cons				
Design and pilot (test) a new form of Complementarity Agreement with Mother Earth that maximizes the carbon sequestration capacity of the Chaco's landscape.	Indicator 1 System to measure and monitor carbon capture using ACMTs has been designed and implemented Formula/Definition: A mechanism aligned with nationally and internationally recognized mechanisms and methods to estimate carbon sequestration potential, which fits into the strategic framework of the Bolivian government's Joint Mitigation and Adaptation Mechanism to climate change	Month 0 Baseline 0 Source: Methodo complies with nati	Month 12 (Cumulative) 0 logy document re ional requirement	Month 24 (Cumulative) 1 viewed and appro S.	Month 36 (Cumulative) 1 oved by subject-matter	Month 48 (Cumulative) 1 r experts, which	Little willingness on the part of community members and leaders to help develop participatory monitoring methods. Weather conditions that prevent monitoring of environmental functions during pilot.
	Indicator 2 Environmental funds or investment mechanisms for carbon sequestration have been designed Formula/Definition: An environmental fund is a local organization made up of stakeholders interested in environmental functions (municipios and others) and responsible for conservation, with the capacity to manage financial resources. It manages a complementary mechanism in line with the national government.	Month 0 Baseline O Source: Minutes o manage resources	Month 12 (Cumulative) 0 of meetings to est	Month 24 (Cumulative) 1 ablish the mecha	Month 36 (Cumulative) 1 nism. Evaluation repor	Month 48 (Cumulative) 1 rts on capacity to	Communities, leaders, or municipios lack the willingness to conserve their forests using Complementary Agreements.
	Indicator 3 Number of municipios participating in the Joint Mitigation and Adaptation Mechanism Formula/Definition: Participating municipios are those that submitted to the Bolivian government's joint mechanism a proposal to incorporate ACMTs as a mechanism for mitigation and adaptation to climate change. The proposal will include an affiliation plan with conceptual, operational, and functional details.	Month 0 Baseline 0 Source: Affiliation plans approved by	Month 12 (Cumulative) 0 documents subrr the Authority for	Month 24 (Cumulative) 1 nitted (conceptua Mother Earth.	Month 36 (Cumulative) 2 I, operational, and fun	Month 48 (Cumulative) 2 ctional plans), and	Changes in national regulations for the involvement of municipios. Lack of political willingness in municipios. Authorities change.

Canture lessons learned	Indicator 1	Month 0	Month 12	Month 24	Month 36	Month 18	Lack of interest among public officials		
during and after the project		Baseline	(Cumulative)	(Cumulative)	(Cumulative)	(Cumulative)	Participation in training events lacks		
and generate products that	Number of Bolivian municipios participating in the	0	0	3	7	10	continuity.		
can be used to transfer	regional "ACMT School" pilot, through self-								
knowledge.	learning/virtually (150100)								
	Formula/Definition: Number of municipios participating in regional "ACMT School" that gained skills through self- learning or virtual training events and were part of an evaluation process that demonstrates: a) They have solid knowledge of all steps needed to implement ACMTs; and b) They have tools such as how-to guides, videos, and other support mechanisms.	g Source: Lists of participants who completed the training process. Knowledge tests. Lists of delivery/receipt of how-to guides and learning tools. id							
	Indicator 2	Month 0	Month 12	Month 24	Month 36	Month 48	Lack of interest among public officials.		
		Baseline	(Cumulative)	(Cumulative)	(Cumulative)	(Cumulative)	Participation in training events lacks		
	Number of municipios outside Bolivia participating in regional "ACMT School" (110200)	0	0	3	7	10	continuity.		
	Formula/Definition: Number of municipios outside Bolivia participating in regional "ACMT School" that gained skills through self-learning or virtual training events and were part of an evaluation process that demonstrates: a) They have solid knowledge of all steps needed to implement ACMTs; and b) They have tools such as how-to guides, videos, and other support mechanisms.	Source: Lists of participants who completed the training process. Knowledge tests. How-to guides and learning tools are available online on a training platform. ch s.							
	Indicator 3	Month 0	Month 12	Month 24	Month 36	Month 48	Results, as far as knowledge and		
	How-to guides and toolboxes for regional "ACMT School"	Baseline 0	(Cumulative) 0	(Cumulative) 1	<u>(Cumulative)</u> 2	(Cumulative) 4	learning developed, have not been satisfactory because of risk factors mentioned before.		
	<b>Formula/Definition</b> : How-to guides are documents showing a methodological process based on experiences and lessons learned during the implementation of Reciprocal Watershed Agreements in area of action scenarios. These documents are reviewed, approved, edited, and published in hard copy and electronically. Toolboxes are visual and technical materials that accompany how-to guides.	Source: How-to g and approved	uuides, case studie						

## DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK MULTILATERAL INVESTMENT FUND

## PROPOSED RESOLUTION MIF/DE-\_\_/15

## Bolivia. Nonreimbursable Technical Cooperation ATN/ME-\_\_\_\_-BO Operationalizing Bolivia's Joint Mechanism for Mitigation and Adaptation to Climate Change: Climate Compatible Development in the Bolivian Chaco

The Donors Committee of the Multilateral Investment Fund

## **RESOLVES**:

1. That the President of the Inter-American Development Bank or such representative as he shall designate is authorized, in the name and on behalf of the Bank, as Administrator of the Multilateral Investment Fund, to enter into such agreements as may be necessary with Fundación Natura Bolivia, and to take such additional measures as may be pertinent for the execution of the project proposal contained in document MIF/AT-\_\_\_\_ with respect to technical cooperation for operationalizing Bolivia's joint mechanism for mitigation and adaptation to climate change: climate compatible development in the Bolivian Chaco.

2. That up to the amount of US\$1,259,846 or its equivalent in other convertible currencies, shall be authorized for the purpose of this resolution, chargeable to the resources of the Multilateral Investment Fund.

3. That the above-mentioned sum is to be provided on a nonreimbursable basis.

(Adopted on \_\_\_\_ 2015)

LEG/NSG/IDBDOCS:39870105 BO-M1067