MID-TERM REVIEW – MTR

PROJECT: REDUCTION OF CLIMATE CHANGE RISK AND VULNERABILITY IN THE MOMPOSINA DEPRESSION REGION IN COLOMBIA

PREPARED BY

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Address: Calle 73 No. 7-50 / Of. 201
Telephone Number: (571) 5408317 Email:
info@econat.biz website: www.econat.biz

Dirección: *Calle 73 N° 7-50 / Ofi. 201*
Teléfono: *+57-1-540-8317*

info@econat.biz
www.econat.biz

Project Title: Reduction of Climate Change Risk and Vulnerability in the Momposina Depression Region in Colombia with the support of UNDP and funded by the GEF

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Management Arrangements: NIM

Region and Countries included in the Review: Colombia

TABLE OF CONTENTS

TABLES

Dirección: Calle 73 N° 7-50 / Ofi. 201
Teléfono: +57-1-540-8317
info@econat.biz
www.econat.biz

GRAPHS

FIGURES

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info@econat.biz
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Acronyms and Abbreviations

CAR	Corporación Autónoma Regional (Autonomous Regional Corporation)
CC	Climate Change
DCP	Draft Country Program
DNP	Departamento Nacional de Planeación (National Planning Department)
MTR	Mid-term Review
FA	Fondo Nacional de Adaptación (National Adaptation Fund)
AvHI	Alexander von Humboldt Institute
IDEAM	Instituto de Hidrología, Meteorología y Estudios Ambientales (Institute of Hydrology, Meteorology and Environmental Studies)
ALM	Adaptation Learning Mechanism
MESD	Ministry of the Environment and Sustainable Development
NIM	National Implementation Modality
CBO	Community-based Organizations
SDO	Sustainable Development Objectives
CAP	Corporate Action Plans
DDP	Departmental Development Plan
MDP	Municipal Development Plan
REMP	Regional Environmental Management Plan
NCCP	National Climate Change Portal
UNDP	United Nations Development Program
AOP	Annual Operational Plan
LUP	Land-use Plan
PPR	Project Performance Report
PRODOC	Project Document Format
QOR	Quarterly Operational Report
UNDAF	United Nations Development Assistance Framework

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info@econat.biz
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1 EXECUTIVE SUMMARY

Table 1 Project Information

1. PROJECT NO.	COL83662
2. PROJECT TITLE	Climate Change Risk and Vulnerability Reduction in the Momposina Depression - Colombia
3. WORK HEADQUARTERS	Montería (with travel to San Marcos, San Benito Abad, Sucre and Ayapel, Córdoba)
4. CONSULTANCY/SERVICE TITLE	Mid-term Review
PROJECT TYPE	Institutional Contract
WORK HEADQUARTERS	Montería (with travel to San Marcos, San Benito Abad, Sucre and Ayapel, Córdoba)

Source: UNDP, 2012

1.1 Project Description

Pursuant to the project document prepared between the Government of Colombia and the United Nations Development Program– UNDP and approved the Kyoto Protocol Adaptation Fund (2012), the following has been established:

The "*Climate Change Risk and Vulnerability Reduction in the region of La Mojana, Colombia*", aims at reducing the vulnerability of communities and increase the resilience of ecosystems in this region, which face flooding and drought risks associated with climate change and climate variability. The project operates mainly in the Ayapel, San Marcos and San Benito Abad municipalities.

The project has four components: the first aims at consolidating an information system on the hydrological and climate patterns at a regional level. National and local governments and regional

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Teléfono: +57-1-540-8317
info@econat.biz
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institutions will receive detailed information about the climate scenarios and the hydrological and climate variability trends, in order to enable the aforementioned institutions to take preventive measures towards reducing vulnerability and risk generation. These measures are expressed in the planning instruments and in the implementation of adaptation measures that the project carries out in the region.

The second component of this project intends to improve ecological and environmental conditions in the region. Wetland restoration plans are being implemented in order to contribute to the improvement of water dynamics as a measure to reduce risks and protect the population in the middle term. These actions are coordinated with the third component, the purpose of which is to strengthen agroecological and adaptation measures to contribute to reducing the climate change vulnerability of communities.

Lastly, the fourth component of this project aims at strengthening local capacities to address the climate change challenges faced by local governments, civil society and producer organizations.

1.2 Project Progress Summary

The MTR has been geared towards identifying, analyzing and measuring the level of progress in the "*Climate Change Risk and Vulnerability Reduction in the Momposina Depression – Colombia"* project, where three (3) years have elapsed since its commencement date, and where the target completion date is two (2) years from now.

The drafted and approved project is comprised of four components containing different activities and goals aimed at climate change adaptation:

a) C1: Consolidating a hydrological and climate pattern information system.
b) C2: Improving the ecological and environmental conditions in the region.
c) C3: Strengthening agroecological and adaptation measures that contribute to reducing the climate change vulnerability of communities.
d) C4: Strengthening local capacities to address the climate challenges faced by local governments, civil society and producer organizations.

Having reviewed the execution data, a significant delay can be observed, given that after 60% of the execution time, only 27% of the budget allocation progress has been achieved; moreover, there is a 50% HIGHLY SATISFACTORY likelihood of achieving the goals set out. The foregoing is analyzed in depth to establish the causes and consequences.

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The execution delay was further aggravated due to the devaluation process of the Colombian peso against the US dollar during the period spanning from the project approval date until the date of this review. The price ratio went from COP$1,800 per US Dollar in 2012, to COP$3,050 per US Dollar in 2016. The effect was translated into greater peso availability for activities which had already been budgeted.

The causes for the execution delay originated even before the project was drafted, due to a season of extreme rainfall in 2010-2011, which caused flooding in several areas of the country, particularly in the region of La Mojana. This emergency triggered a series of changes in the institutional context that came to a conclusion until after the project had begun. Moreover, the vulnerability in which these floods left the population required an immediate reaction by the State, which led to a series of emergency interventions aimed towards the affected population. (*See 3. PROJECT DESCRIPTION AND CONTEXT)*.

The main change that took place in the institutional context was the decision of the State to address the risk of climate change effects as a core public policy issue, for which it established new institutions and competencies to be added to those that already existed. This change in the dynamics of climate change public policy gave rise to the decision to address intervention decisions by employing technical criteria in order to prevent making the mistakes made in the past, which led to a significant loss in public resources, namely those that were invested in works that the 2010-2011 floods completely destroyed. (*See 4.1.1 Project Design)*

Once the project began within the framework of this new institutional order, the ADAPTATION FUND undertook the task of gathering hydro climatic data in the area of La Mojana, which will enable making more assertive decisions on adaptation to climate change effects. The Steering Committee of the project welcomed this policy guideline and decided to postpone activities wherein this information is decisive, thus impacting the execution of primarily Components 2 and 3.

Component 1 has had an adequate execution, given that the implementation of the early Warning System (Sistema de Alertas Tempranas -SAT-) envisaged installing monitoring stations that were not contingent upon the National Adaptation Fund studies; moreover, the appropriation of the processes to generate information by local and regional institutions, as well as the incorporation of this information into everyday decisions, are activities that could have been performed from the outset.

Similarly, Component 4 had an adequate execution, due to the fact that its main activity was not contingent upon the results of the Adaptation Fund study. This component shows significant progress, given that climate change risk management was successfully

Dirección: Calle 73 N° 7-50 / Ofi. 201
Teléfono: +57-1-540-8317
info@econat.biz
www.econat.biz

incorporated in the various land management instruments (departmental and municipal development plans, land-use plans, regional environmental management plans, among others).

Components 2 and 3, which gather the core climate change adaptation activities, were impacted due to the lack of technical information on the region´s hydrodynamics, although to a different degree and mainly due to the formulation of its goals under assumptions that were not met in the field.

Component 2, which aims at rehabilitating the ecology of the ecosystem, needs to be based on the information of the hydrological model and overcome one difficulty that was unforeseen when the project was drafted in order to achieve the proposed activities: the unavailability of land to reforest 700 hectares. Land ownership presents a huge barrier due to the existence of vast estates that represent an extremely high concentration of land property. Nevertheless, the project did make progress in forestry activities, such as identifying native species and creating vegetable material banks for future reforestation, and making arrangements between private land owners and communities. The proposal put forward by the Alexander von Humboldt Institute of Biological Investigations, and approved in 2016, envisages comprehensive ecological rehabilitation leaving behind the initial proposal contained in the reforestation project using foreign species and focusing on identifying species and the uses given to flora and fauna by the population to guide the rehabilitation efforts. Although the terms of these processes exceed the remaining execution time, this MTR recommends an extension of only 21 months, including the time to put forward on behalf of the community the institutional and community appropriation processes to give the rehabilitation processes continuity after the project has concluded.

Component 3, whose main objective is to reduce the vulnerability of the population by implementing resilient productive activities that will contribute to ensure the food security of the population, and to build adaptive infrastructure, for both housing and institutional uses, has been impacted not just by the lack of technical information but also by incorrect hypotheses on which the activities were built. (*See 4.1.1 Project Design*).

In response to these barriers, and with a firm resolution to contribute to decreasing the vulnerability of the population, modifications were made to the project within the framework of adaptive management, such as interventions through drought scenario activities, which were previously absent in how the project was formulated. Installing rainwater collectors and placing water filters are of immediate benefit for the population. Similarly, installing rice mills contributed to improving the conditions of the population by enabling them to add value to their crops, which in turn means creating income. (*See 4.3.1 Management Mechanisms*). Similarly, in the case of community vegetable gardens, which have an access barrier due to land ownership, the project opted to intervene with family vegetable gardens and

Dirección: Calle 73 N° 7-50 / Ofi. 201
Teléfono: +57-1-540-8317
info@econat.biz
www.econat.biz

broadly extended the target, thus incorporating the population who was equally vulnerable in the project´s area of influence.

Given that the results of the study conducted by the National Adaptation Fund were delivered in the second semester of 2016, the delay in the execution of the project can be understood and justified, particularly in the case of components 2 and 3. The MTR finds this delay to be completely justified and even highlights a lesson learned in terms of sacrificing compliance with the budget execution schedule in favor of minimizing resource-loss risks arising from inadequate investments and resulting from a lack of technical information. In this regard, the MTR recommends extending the execution term by 21 months to compensate for the Adaptation Fund study waiting time.

Hydro-climatic study results are of the utmost importance; given the fact that they provide information that points to refraining from carrying out hydraulic works such as dikes and barriers, which are shown to be innocuous in the long term, and recommend instead to steer efforts towards activities that reestablish or are in line with hydric dynamics, such as re-opening flood channels.

The fact that the project does not have a budget allocation for a permanent follow-up and monitoring system is considered a shortcoming in the project; in terms of adaptation achievements. The adaptive management of the project requires continuous feedback on the “efficacy” of the activities, and not just on execution efficiency. The uncertainty of achieving the main goal can thus be reduced, which is namely to reduce the vulnerability of the population by implementing climate change adaptation measures.

1.3 MTR Assessment and Achievement Summary

Below is a summary of the Mid-term Review assessments and achievements in terms of the reduction of climate change risk and vulnerability in the Momposina Depression region of Colombia.

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Teléfono: +57-1-540-8317
info@econat.biz
www.econat.biz

Table 2 MTR Assessment and Achievement

Parameter	MTR Assessment	Achievement Description
Results-achievement Progress	Objective Achievement-level Assessment. Achievement assessment: (Grade: 5 pt. = S)	According to how it was initially formulated, the project has not been successful in developing the key activities of components 2 and 3, due to justified delays arising from the delays with preparing the hydrological models and studies by the National Adaptation Fund affecting the very dynamics of their execution and how the design of each of the interventions was established. Similarly, the steering and technical committees of the project, through the diagnosis and analysis of the field results, have established that in La Mojana the population is also vulnerable to periods of drought, whereby aspects associated with improving the wellbeing of the population were included under a food security and drought conditions scheme, and also following the guidelines to establish individual mechanisms to address populations in flood conditions.
	Component 1 Achievement-level Assessment: (5 pt. = S)	Equipment and systems have been implemented to determine the climate conditions in the direct area of influence of the project, which, according to the IDEAM representatives, the technical committee and the representatives of regional and local institutions that were consulted, have technical characteristics of an optimal quality; nevertheless, at the date of this review, no mechanism has been established to address the management, maintenance and other relevant operational aspects thereof.

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Teléfono: +57-1-540-8317
info@econat.biz
www.econat.biz

Table 2 MTR Assessment and Achievement	Component 2 Achievement-level Assessment: (4 pt.= MS)	To the date of this review (second semester of 2016), hydrological modeling has been performed according to the parameters set forth by the National Adaptation Fund and the wetland restoration proposal from the Alexander von Humboldt Institute, which are the bases to start the execution of most of the activities in result 2. However, it is evident the limitation in the time frame, in regards to the project goals where a rehabilitation of 700 hectares is proposed, since the response of the ecosystem takes longer than two years (remaining time to finish the project), and it is probable that positive or negative changes be evidenced after the foresaid time. Along the same line, according to Humboldt's proposal, without the implementation of long-term monitoring, it will not be possible to know if the strategies implemented were successful.

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Teléfono: +57-1-540-8317
info@econat.biz
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Parameter	MTR Assessment	Achievement Description
	Component 3 Achievement-level Assessment: (4 pt.= MS)	To the date of this review, construction activities of housing, schools and community centers have not been implemented because the hydrological model is unavailable. Meanwhile, a study was conducted about the population perception in order to establish the design parameters of the infrastructure and learn about the costs of the materials to perform the study. Agroforestry- pastoral crops and community crops have not been established due to the model of land ownership in the region. It is worth mentioning that as a result of the lack of land ownership, vegetable gardens have developed in a family-based model instead of a community-based model in respond to the need to provide food security to the community and in respond to situations of vulnerability to climate change. However, the MTR states that in most cases vegetable gardens were grown in yards of houses with and average area of 35 square meters, which do not guarantee medium- and long-term sustainability due to the land sterility that may arise from the intensity of crops if the community does not take ownership of the techniques taught and implemented by the technical team. On the other hand, the MTR highlights the management within this component regarding the accomplishment of supplementary activities that were not contemplated in the formulation of the project and that deal with adaptation to climate change such as: supplying potable water filters, installing mechanisms for rainwater storage, setting up rice mills and delivering seeds that are local to the region to grow crops. These activities have favored the improvement in the quality of life of the population and have caused these aspects to be considered relevant in the execution of the project.

	Component 4 Achievement-level Assessment: (6 pt.= HS)	The project has had an active and favorable impact on including climate change adaptation matters in the Departmental development Plans of Córdoba and Sucre, the Municipal Development Plans and Land-use Plans of the San Marcos, San Benito Abad and Ayapel Municipalities; as well as in the Four-year Action Plans of the Valle del Sinú and San Jorge- CVS, and Corpomojana Autonomous Regional Corporations. Similarly, it has created relevant conditions for the beneficiary population and education institutions, in terms of knowledge and giving importance to the matter so that it is treated in an equitable and overarching manner by all social and political actors in the region.

Parameter	MTR Assessment	Achievement Description
Project Execution and Adaptive Management	Assessment: (5 pt. = S)	During the execution of the project, the Steering and Technical committees have determined that measures to address flood and drought conditions must be implemented according to the individual dynamics of La Mojana. It was there where the performance of activities that are exclusive to flood conditions was projected, without taking the climate variability of the region into consideration. It also includes drought periods when the vulnerable population requires different elements to help them withstand the particular phenomena of each of the different periods that they must face in their daily lives. Therefore, from the MTR perspective, the decisions made and the actions carried out until the date of this review, based on the evidence gathered in activities on the field, it is considered that they have provided an adequate adaptive management to climate risks.

NIT. 830.053.487 - 1

Parameter	MTR Assessment	Achievement Description

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Teléfono: *+57-1-540-8317*
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www.econat.biz

Sustainability	(3 pt.= ML)	Component 1: To the date of this review, a mechanism to guarantee sustainability is yet to be defined. Nevertheless, academic institutions, through their representatives, have stated their interest in establishing cooperation agreements to enable an efficient management of the installed and operating infrastructure for the execution of the project. Component 2: It is estimated that by the end of the project, the restoration of 700 hectares of wetlands planned at the beginning of the project formulation will not be accomplished. However, the installed capacity could produce the expected results; and as cooperation agreements with regional actors are established, continuity could be given to this process. Component 3: To the date of this review, there are not results regarding the adaptive infrastructure for homes, schools and community centers, as it is also the case of the projected agroforestry pastoral systems. As far as community vegetable gardens are concerned, this assessment highlights the management and reorientations to the development of family vegetable gardens, which have had extended coverage. However, it is important to monitor their agro-ecological performance to guarantee sustainability over time; thus avoiding the risk of soil desertification caused by overexploitation. The continuity of water filters, rainwater collection systems, and forest nurseries created from seedlings obtained from natural regeneration and seed collection could be affected as the project concludes since the perception of the population continues to be the economic benefits in the short term. The rice mills implemented have greater chance of success for their beneficiaries due to the rice culture in the region. The goals for this activity have exceeded those initially proposed. Component 4: This component has a greater chance of being successful due to the fact that it was included in the regional plans of entities with presence in the region, whose lines of action are in accordance with project activities. Nevertheless, these actions are subject to the parameters set forth by the governments during each administrative period in the sense that mandatory regulations for state entities to address climate change adaptation are not established.

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Teléfono: +57-1-540-8317
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The following tables detail the assessment categories used above:

Table 3 Results Achievement Progress Assessment: (one assessment for each result and objective)

Result Achievement Progress Assessment: (one assessment for each result and objective)		
6	Highly Satisfactory (HS)	The objectives/results set out are expected to be achieved by the end of the project without any major gaps. The progress made towards achieving objectives/results could be considered a “good practice”.
5	Satisfactory (S)	Most of the objectives/results are expected to be achieved by the end of the project with only minor gaps.
4	Moderately Satisfactory (MS)	Most of the objectives/results are expected to be achieved by the end of the project, but with significant gaps.
3	Moderately Unsatisfactory (MU)	Most of the objectives/results are expected to be achieved by the end of the project, but with major gaps.
2	Unsatisfactory (U)	Most of the objectives/results are not expected to be achieved by the end of the project.
1	Highly Unsatisfactory (HU)	The objectives/results have not been achieved by the middle of the period, and none of the objectives/results set out for the end of the project are expected to be achieved.

Table 4 Project Execution and Adaptive Management Assessment: (overall assessment)

Project Execution and Adaptive Management Assessment: (overall assessment)		
6	Highly Satisfactory (AS)	The implementation of the seven components – management mechanisms, work planning, funding and co-funding, monitoring systems and project-level evaluation, stakeholder engagement, information and communication- are leading to an effective and efficient execution and to adaptive management. The project could be considered a “good practice”.
5	Satisfactory (S)	The implementation of most of the seven components is leading to an effective and efficient execution and to adaptive management, except for a few components that require a corrective action.
4	Moderately Satisfactory (MS)	The implementation of some of the seven components is leading to an effective and efficient execution and to adaptive management, although some components require corrective actions.

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3	Moderately Unsatisfactory (MU)	The implementation of some of the seven components is not leading to an effective and efficient execution and to adaptive management; most components that require corrective actions.
2	Unsatisfactory (U)	The implementation of most of the seven components is not leading to an effective and efficient execution and to adaptive management.
1	Highly Unsatisfactory (HU)	None of the seven components is being implemented in a manner that leads to effective and efficient execution and to adaptive management.

Table 5 Sustainability Assessment: (overall assessment)

Sustainability Assessment: (overall assessment)		
4	Likely (L)	Minimum sustainability risk; the most important results are on a good path to being achieved by the end of the project and they are expected to continue in the near future.
3	Moderately Likely (ML)	Moderate risk, but at least some of the results may be sustained due to the progress observed in goal achievement during the mid-term review.
2	Moderately Unlikely(MU)	Significant risk of the most important results not continuing after the project has concluded, although some products and activities should continue.
1	Unlikely (U)	Serious risk that the project results and key products will not be sustained.

1.4 Conclusions Summary

Some important aspects are discussed in conclusions:

- The MTR considers that the scopes and results achieved in terms of information call for including activities and goals that were not initially contemplated in the formulation of the project, as is the case of the participative rural characterization and diagnosis, through which food security is determined to be one of the priorities in the region, using rainy and dry seasons as a reference, and where each of these have their own individual problems. The foregoing is aggravated by the problems arising from land ownership informality, which makes activities such as the following challenging: wetland restoration, implementation of agroforestry-pastoral systems, community vegetable gardens, schools, housing and community centers, mainly concerning components 2 and 3.

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Teléfono: +57-1-540-8317
info@econat.biz
www.econat.biz

- The implementation of the project has been an important process in the region of La Mojana, where the vulnerability of the beneficiary population has been reduced. This process has left useful lessons learned for the country, associated with: i) institutional arrangements to implement adaptive measures; ii) climate change data processes and requirements (risk and flood scenarios) that are essential for decision-making, and iii) adaptation measures design (wetland restoration) with actions for the middle and long term in the region of La Mojana.

- The delays to begin the execution of the process, caused by previous administrative issues, the formulation of a hydrological model (a necessary input for adaptive infrastructure designs), as well as the land ownership issues that were identified for the implementation of community vegetable hardens, agroforestry-pastoral systems and wetland restoration itself; all of which lead to a need to extend the time horizon for the end of the project, until late 2019 at least, by which time wetland rehabilitation activities proposed by the Alexander von Humboldt Institute could be channeled.

- In the execution of the project, through participative rural diagnosis activities, the need to direct some of the activities formulated at the beginning of the project, to address the food security of the beneficiaries (i.e.: family vegetable gardens and growing seeds) has been established. Moreover, drought conditions in the region of La Mojana have been addressed, which impact the quality of life and wellbeing of the population (i.e.: rainwater collection systems and water filters).

- During the formulation phase some assumptions were made and they did not actually take place in the field. For example, assumptions related to land availability both for collective vegetable gardens and reforestation; as well as assuming the availability of sufficient technical information to undertake hydraulic works. Such assumptions are perhaps the most evident causes for the little progress of components 2 and 3. They were more evident than the performance of the implementation phase, which was forced to opt for an adaptive management that prevented the project from being paralyzed but clearly delayed the schedules initially formulated (e.g. due to the delays in completing the hydrological studies).

1.5 Recommendations Summary Table

- The projects that seek the reduction of risks and vulnerability to climate change must have the minimum technical information required for their formulation, such as the case of the study on climate change scenarios, before defining intervention activities and goals.

Dirección: Calle 73 N° 7-50 / Ofi. 201
Teléfono: +57-1-540-8317
info@econat.biz
www.econat.biz

- Vulnerability reduction requires data, with an adequate level of detail, about socioeconomic aspects that condition the viability of some activities such as ecosystem restoration and social use given to these by the community, and designing and building adaptive infrastructure. In the case of La Mojana, land ownership has been an unforeseen obstacle for wetland restoration, implementing community vegetable gardens for self-consumption, and building houses and schools.

- As far as the routing of some project activities is concerned, it is recommended that they have an impact on social aspects such as fostering the community' appropriation of local capacities as well as those of local and regional institutions in order to manage technical information that enables implementing early alerts. Similarly, continue strengthening the social and community work of the population regarding climate change. They should not only associate it to extreme events, but to events that could be gradually manifested and presented. Its identification and care must be known in order to reduce possible vulnerability.

- The project assessment identified that the proposed goals, mainly those in components 2 and 3, were not dimensioned at an appropriate scale in terms of costs and technical matters. For example, it is required to know the budget and carry out the design for 60 houses, 10 education facilities and 3 community buildings with some designs that respond to the context of the population and the dynamics of the region. Similarly, there was a lack of initial technical information on the hydrologic characteristics of the region, which determined the vast majority of activities (rehabilitation of wetland ecosystems, construction of adaptive infrastructure, agro-forestry and grazing systems). Therefore, it is recommended to reorient some of the goals of these components according to the information raised and generated during the execution of the project (hydrological model, design parameters for housing and community centers, land tenure, water supply, amongst others), to allow relating such goals to a suitable budget and technical scale.

- Extending the project execution period to 21 months is recommended, whereby the end date would be late 2019, due to justified delays that were found and exposed in this review.

Dirección: Calle 73 N° 7-50 / Ofi. 201
Teléfono: +57-1-540-8317
info@econat.biz
www.econat.biz

2 INTRODUCTION

The main objective of the Mid-term Review – MTR is to analyze the results obtained through the execution of the activities proposed in the formulation of the project for each of the four components: (1) "The Enhanced Environmental Information System – EIS, strengthens local capacities and facilitates decision-making regarding climate change adaptation". (2) "The regulation and buffering capacity of the wetlands has been restored through the varied use of the landscape, thus reducing the vulnerability of local communities to climate change impacts". (3) "The introduction of agroecological practices that are resilient to climate change and the design of constructions help local communities reduce their vulnerability to climate change impacts". (4) "The capacity of institutions and organizations at a national, regional and local level to implement scheduled climate change adaptation measures has been strengthened in order to replicate activities and lessons learned".

The review report provides the methodology applied to gather and analyze data, according to the parameters set forth.

Subsequently, the MTR results are presented using the questions proposed in the 2016 - 2017 Request for Proposal (RfP) dated March 9, 2016 as reference: "*Mid-term Review based on Results Analysis*"

Finally, recommendations are made based on the analysis of results.

2.1 MTR Purpose and Objectives

The purpose of this work is to provide the most accurate assessment possible on how the project activities are being executed in the different components. Secondly, to provide the scope of the goals set out in terms of reducing climate change vulnerability in the region of La Mojana by virtue of the project´s interventions. Determine what endogenous or exogenous factors are positively or negatively impacting the scope of the project.

Finally, the objective is to provide relevant information to the parties executing and funding the project in order to detect problems and obstacles in a timely manner, with the aim to meet the proposed objectives and ensure that the planned goals are achieved.

The findings, results and recommendations will contribute to decision-making regarding activity adjustments and project planning for the remainder of the execution. The MTR seeks to identify and analyze the achievements made regarding the project objective; in addition to the execution mechanisms and the existence of projects that were not foreseen in formulating the project (risk identification). Similarly, this review seeks to identify external factors for its implementation.

Dirección: Calle 73 N° 7-50 / Ofi. 201
Teléfono: +57-1-540-8317
info@econat.biz
www.econat.biz

2.2 Objectives

2.2.1 Overall Objective

To provide an independent analysis of the process made during the course of the project until present date, and to identify potential problems with the design of the project, while evaluating the progress made towards meeting the objectives. The MTR will evaluate the first signs of success or failure of the project and will identify the necessary changes that need to be carried out. The execution of the project will be measured based on the indicators set forth in the Logical Framework Matrix of the project (see *7.2 MTR Evaluation Matrix)*.

2.2.2 Specific Objectives

- Identifying and documenting lessons learned (including lessons that could improve the design and/or implementation of other AF projects endorsed by the UNDP-GEF).

- Making recommendations in relation to specific actions that must be taken to improve the project.

- Providing information based on credible, reliable and useful evidence for program and financial decision-making.

2.3 MTR Scope and Methodology

The evaluating team analyzed the following three categories in relation to the progress made in the project. The assessment team ranked the general progress using a six-point scale for each category.

i) Progress towards results
ii) Adaptive management
iii) Management arrangements

The Mid-term Review – MTR methodology focused its analysis and observations on the goals of the project to enable establishing the execution progress and in order to identify the situations that require the implementation of an action plan. Such action plan is not a part of the scope of this review, but the determining some example factors that should govern it are as follows: It must

Dirección: Calle 73 N° 7-50 / Ofi. 201
Teléfono: +57-1-540-8317
info@econat.biz
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gather the recommendations made in this review to redirect the activities that will ensure meeting the main objective of the project, which is namely the reduction of climate change risk and variability.

The objective of the review relies on analyzing the indicators and assumptions described in the Logical Framework Matrix (LFM), according to how they have evolved up to this stage in the development of the project. It also aims at identifying design and work-plan flaws as a mechanism to establish the likelihood of success of each one of the project components by the end of the estimated execution period.

2.3.1 Methodological Activities

2.3.1.1 Analysis of Activity and Component Indicators

According to Ortegón, Pacheco & Adriana (2005), activities and components are the first links in the vertical chain of the Logical Framework Methodology – LFM. If the project is well designed, achieving the goals set out at these levels will in part determine their achievement, purpose and goal of the project. For this analysis, the consultancy relied on the information provided by the project coordinator at the initial stage of the review. The achievement of project goals was evaluated by verifying the evolution of project indicators in the field and comparing the information gathered in field verifications.

To estimate the achievement of the project goals after the project has been executed, a scale from zero (0) to six (6) points was established, where 0 indicates that there is no evidence of actions leading to fulfilling an activity, 2 for activities whose fulfillment is doubtful, 4 for activities that are likely to be fulfilled based on evidence, and 6 for activities that have been performed according to the planned budget and execution time, and the likelihood of achieving the expected results is very high.

The final part of this review report suggests the factors that lead to the poorest performance in the established goals in relation to the execution time of the project, while considering the relevant aspects that have had a direct impact on such execution.

2.3.1.2 Assumption Monitoring

The realization of the assumptions defined in the LFM is a key determining factor to achieve the project objectives. According to Ortegón et al. (2005), experience has shown that the main reason for project execution failure in terms of purpose comes from the non-realization of the assumptions

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Teléfono: +57-1-540-8317
info@econat.biz
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both at the level of activities and at the level of components. At an activity level, assumptions also impact the quality of the component, and therefore the achievement of the purpose.

The importance of verifying project assumptions at La Mojana lay in verifying whether the assumptions had occurred as planned, and also in observing whether the external conditions had changed, in order to determine if incorporating new assumptions to guarantee the success of each of the planned goals was necessary.

2.3.1.3 Likelihood of achieving Project Objectives

According to ILPES (2004) at Ortegón et al. (2005) documents, it is possible that when performing the mid-term review, no change in the purpose and aim indicators of the LFM may be observed. However, the likelihood of achieving the objectives of the project can be inferred from the goal achievement evaluation at the level of activities and components, and from an assumption analysis. If the LFM was properly built, compliance with activities, components and assumptions should lead to achieving the purpose of the project.

This concludes with the likelihood of achieving project objectives at purpose and goal levels, based on a qualitative scale with the following categories: highly satisfactory (HS), moderately satisfactory (MS), unsatisfactory (U) and highly unsatisfactory (HU).

2.3.1.4 Problems and Actions

The activities described and performed during the execution of the project led to identifying the main problems that may have resulted in delays in the execution of the project and in achieving the objectives; and the actions required to mitigate such obstacles.

The final review report states the main problems found at LFM levels (components and activities), as well as the actions that must be implemented to solve such problems (ILPES, 2004) (Ortegón, Pacheco, & Adriana, 2005).

2.3.1.5 Methodological Instruments

To put the analysis and evaluation document together, different methods were used in support of the information gathering process. Some of them were interviews, workshops, work meetings, and consulting documents associated to the project.

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Table 6 Methodological Instruments associated to Interviews

Instrument	Description	Data process and gathering
Interviews	The actors participating in the project were interviewed according to their relation to the component and the relevant indicators. The objective was to gather information on the progress or procedures to identify and implement activities.	The interviews conducted were analyzed

Source: EcoNat

Table 7 Methodological Instruments associated to the Workshop

Instrument	Description	Data process and gathering
Workshop	Workshops were carried out to identify the implementation strategy for each of the components of the project.	Workshop conclusions were a key input to identify the success of activities and components

Source: EcoNat

Table 6 refers to interviews conducted as a key technique to gather primary information. The interviews are considered crucial in performing the evaluation. Thus, members of the steering committee, technical committee, and social and political actors in the area of influence of the project were interviewed, in addition to leaders of the beneficiary communities.

The interviews were supplemented with field information, which was collected on the week of August 9 to 13 and compared with the secondary information of the project. The purpose was for the evaluating group to establish the subject matter and facilitate information in a coherent and systematical manner (*see 7.3 Questionnaire Model or Interview guide to be employed in Data Gathering; 7.5 List of Persons Interviewed; 7.4 MTR Mission Itinerary; 7.5.1 Record of Persons Interviewed and Community Leaders on the Field*).

The interviews were performed using an interaction approach. Questions in each subject session were asked according to the specific objectives of the evaluation in relation to the activities put forward in the logical framework of the project.

Another noteworthy aspect of the instrument was how the interviewer deployed a mixed strategy to ask pre-established questions, according to the analytical interest and the evaluation requirements, and other questions were asked regarding the relevant subjects, according to the profile of each of the project actors that were interviewed.

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Teléfono: +57-1-540-8317
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3 PROJECT DESCRIPTION AND CONTEXT

The sub-region of La Mojana has shown an accelerated process of environmental degradation caused by the drying wetlands that alter the hydrological regime, which in turn has been caused primarily by deforestation and the loss of biodiversity. Additionally, mining practices both in and out of the region have led to the sedimentation and pollution of hydric resources with heavy metals. The region of La Mojana has areas where the population is below the national average of the Unsatisfied Basic Needs (UBN) Index, which takes into account factors such as access to education, housing and basic health (UNDP, National Adaptation Fund and Government of Colombia, 2012). Additionally, this region is characterized by a high concentration of land ownership, mostly in the form of large cattle ranching estates with low labor intensity.

The communities included in the formulation of the project are the following:

Table 8 Area of Influence of the Project

Department	Municipality	Village/Township
Sucre	San Marcos	El Pital
		Las Flores
		Cuenca
		El Torno
	San Benito Abad	Pasifueres
		Tosnobán
		Las Chispas
		Chinchorro
Córdoba	Ayapel	Cecilia
		Seheve
		Sincelejito

Source: Request for Proposal (RfP) N° 2016-0127

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Teléfono: +57-1-540-8317
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In order to reduce the predicted and adverse climate change impacts and to bring awareness to the population regarding climate change adaptation, a strategy was rolled out. It involved a set of adaptation measures that complement one another and are based on four main components:

Table 9 Budget Allocation for each Component in US Dollars

Component	Budget Allocation USD	Percentage
1. Enhanced Environmental Information System - EIS	$ 1,456,314	17%
2. Recovery of the regulating and buffering capacities of wetlands	$ 2,675,965	31%
3. Introduction of agroecological practices that are resilient to climate change	$ 2,593,672	30%
4. Strengthening the capacity of institutions and organizations to implement climate change adaptation measures at national, regional and local levels.	$ 447,383	5%
Project/Program execution cost	$ 677,640	8%
Total Project / Program Cost (= Project Components + Execution Cost)	$ 7,850,974	92%
Implementation Quota	$ 667,333	8%
TOTAL (= total project / program cost + execution cost)	**$ 8,518,307**	**100%**

Source: Adapted from the Project Performance Report (PPR) until March 2016 and from the Adaptation Fund website: (https://www.adaptation-fund.org/project/reducing-risk-and-vulnerability-to-climate-change-in-the-region-of-la- depression-momposina-in-Colombia/)

The first component seeks to consolidate a regional hydrological and climate pattern information system. National and local governments and regional institutions will receive detailed information about the climate scenarios and the hydrological and climate variability trends in order for them to take preventive measures that will reduce vulnerability and risk generation. These measures have been expressed in the planning instruments and in the execution of adaptation measures that the project has been carrying out in the region.

The second project component seeks to improve ecological and environmental conditions in the region. Actions to restore wetlands will be implemented in order to contribute to improving water dynamics as a measure to reduce risks and protect the population in the mid-term.

The third component seeks to introduce agroecological practices and adaptive infrastructure construction, whereby the climate change vulnerability of communities is meant to be reduced.

The fourth project component seeks to strengthen local capacities to face the challenges that climate change brings to local governments, civil society and producer organizations. For this purpose, association mechanisms and training programs have been introduced, in addition to strengthening territorial, environmental and sector planning instruments in the region.

These components seek to perform climate risk management and provide mid and long term benefits to the communities of the Momposina Depression.

It is worth noting that the context where the project takes place is conditioned by political and administrative aspects, such as local, regional and national administration periods in office. The periods are four-year terms in Colombia. However, this does not match the required terms of the program for climate change risk and vulnerability reduction, which requires establishing continuity mechanisms against administration changes.

This project contemplates a set of pre-established activities for each component. The activities aim at solving the problems identified earlier, which are the cause of population vulnerability.

The conditions present at the start of the project completely condition the execution thereof.

The project was approved on July 28, 2012, the time when the harsh 2010-2011 rainy season had already brought institutional consequences that are identified and documented in this review.

The 2010-2011 rainy season had a negative impact on the country. It created economic losses and motivated the institutions of the Colombian Government to implement a set of activities and reforms prior to the execution of the project that is the subject matter of this review. Some of the reforms were the structure of the Ministry of Environment and Sustainable Development (MESD Decree 3570 of 2011), the creation of the National Risk Management Policy (Law 1523 of 2012) and the Adaptation Fund (Law-decree 4819 of 2010). The intensity of the rainy season and the severity of its effects on the population led to addressing climate-change-related problems with substantial institutional decisions to avoid repeating past mistakes in immediate assistance interventions, which turned out to be unsubstantial in the middle and long term.

It is important to point out that the execution of the project began on March 21, 2013, when the institutional changes and arrangements at local level had not yet been consolidated, such as the procedure required to implement the administrative agreement between the National Planning department (NPD), the Ministry of the Environment and Sustainable Development (MESD), the Colombian Adaptation Fund (AF), The Hydrology, Meteorology and Environmental Studies Institute of Colombia (IDEAM by its Spanish acronym) and the Autonomous Regional Corporation of Río Grande de la Macarena (CORMAGDALENA) for the years 2013 and 2014. The purpose of this agreement was to add knowledge, efforts and resources towards performing a technical exercise on the hydrological behavior in the region of La Mojana. The objective was to validate the hydrological modeling of the project.

In the inception phase the institutional changes were consolidated, and competencies and responsibilities began to be assigned at national level, they had regional functions on the area of La Mojana. Then, the project began to carry out activities that did not depend on the availability of hydro climatic data, since the production of such data was entrusted to the Adaptation Fund.

Component 1 is comprised by two main activities. The first one is installing automated hydro climatic stations in the region in order to monitor climate variability. The execution began with no difficulty. The second one is the implementation of an Early Warning system (SAT by its Spanish acronym), which at the beginning of its execution was subject to the acquisition and consolidation of all the equipment in the hydro climatological stations, as well as to the identification and definition of a regional operator. While the aforementioned activities were carried out, the community was involved in the monitoring of climate variability by measuring and monitoring the rise and fall of water levels in the rivers and streams adjacent to the population.

Component 2 comprises activities geared towards restoring wetlands and their capacity to mitigate climate change effects. The project, as it was originally proposed, addressed this objective with reforestation activities and setting a number of hectares. Due to the absence of available land, which resulted from the fact that most land was not in the hands of the vulnerable population but rather in the hands of big landowners, and due to the time it took to wait for the hydro climatic data, the project took action with the community through activities such as identifying native species in order to create vegetable material banks, and seek agreements with landowners.

Component 3 seeks to reduce the vulnerability of the population to climate change using three main lines corresponding to resilient agro ecological practices by building adaptive infrastructure for the population and establishing agroforestry-pastoral systems. Although both activities require hydro climatic data to guarantee sustainability over time, the project was proactively begin the implementation of agroecology practices oriented to guarantee the food security of the population without having hydro climatic data available at the time. Furthermore, the activities related to adaptive infrastructure did not start execution as they awaited hydro climatic information and the acquisition of bioclimatic

design according to the cultural identity of the inhabitants, and adaptive design to geographical and environmental conditions of the region. It was identified at the beginning of the execution of the project that the palafitic constructions that were built in the framework of past projects were rejected by the communities due to past experiences. Regarding the establishment of agroforestry-pastoral systems, the project faced the barrier of land ownership of the communities inhabiting this territory. Therefore, the management of the project was reoriented by involving other additional communities as vulnerable and where larger areas to execute the systems were identified.

Lastly, component 4, which aims at strengthening institutional and organizational capacities, does not require hydro climatic data to be rolled out, but it does require the consolidation of the institutional order regarding climate change at every level. The project began by training environmental authorities and territorial entities, such as the offices of mayors and governors, through partnerships with local universities. For the social work that seeks to consolidate community-based organizations, the project established a partnership with the Pastoral Social (Catholic Church) in order to bring the project to the community.

3.1 Main Stakeholders: Summarized List

The United Nations Development Program (UNDP) acts as the Implementing Entity to AF, with national implementing partner represented by the the project´s Steering Committee, which is comprised by: The Ministry of the environment and Sustainable Development (MESD), the National Planning Department (NPD), the National Adaptation Fund (AF) and the UNDP. Figure 1 shows the organizational chart of the project, which contemplates the following roles: i) a Steering Committee[1]; ii) a Project Technical Committee[2]; iii) a Consultancy Committee and iv) Project Management, headed by the MESD Climate Change Director.

[1]The Project Steering Committee (PSC) will be responsible for approving key management decisions for the project, and will play a critical role in ensuring technical quality, financial transparency and the global impact of the performance of the project (Adaptation Fund, 2012).

[2] The Technical Committee (TC) has the role of supervising and overseeing the project to ensure that the expected results are achieved and that the resources are invested efficiently and rationally.

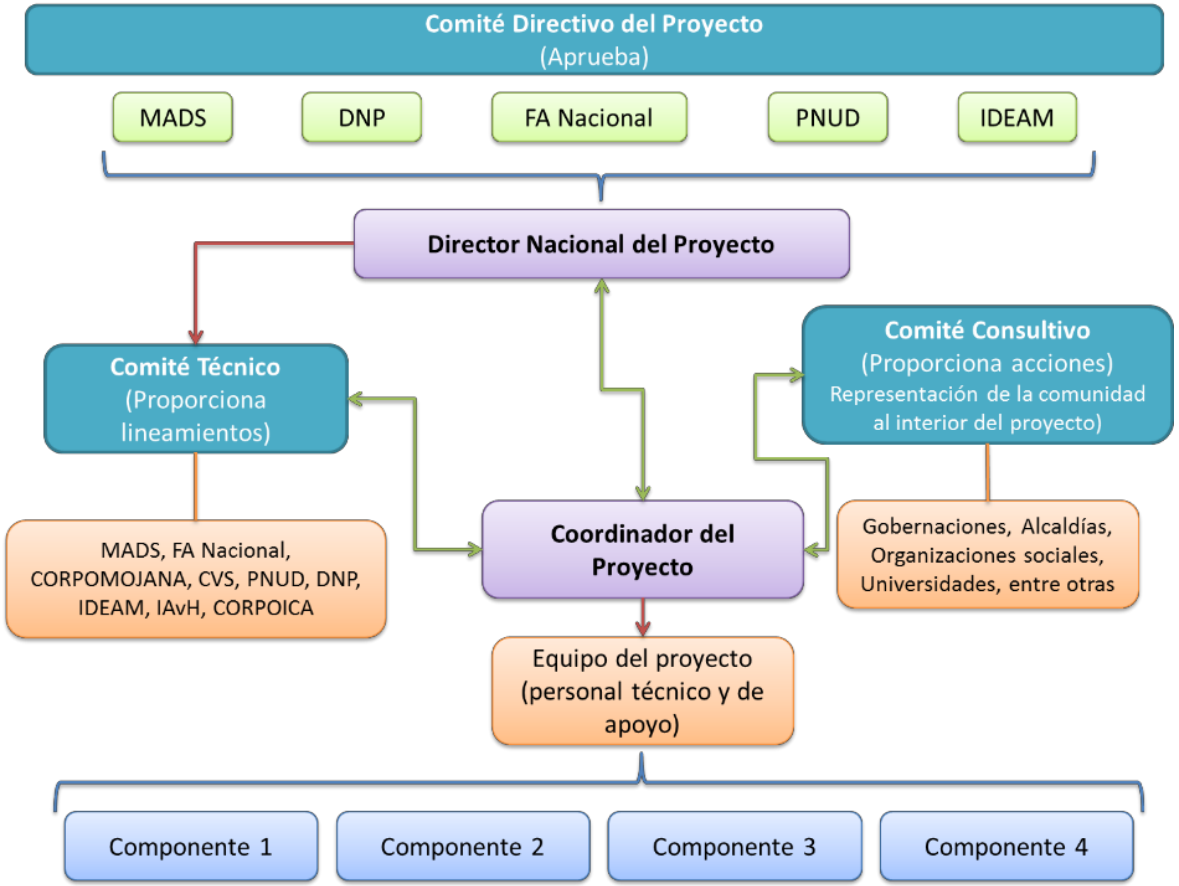


Figure 1 Project Organizational Chart
Adapted from: (Adaptation Fund, 2012)

The Pastoral Social is also a relevant actor for the execution of the project. It is a local non-profit organization (Catholic Church) that provides humanitarian assistance to the communities that have been hit by disasters; and, due to the difficult situation of the public and social order of the region, it has been a key ally to implement the various project activities since the outset and until the present, due to the fact that it is a well-known actor in the region.

4 Project Strategy

4.1 Project Design

The project was designed at a time when the influence of the harsh consequences of the 2010-2011 rainy seasons had a significant impact on all national spheres: institutional, economic, social and environmental aspects.

The way this project was formulated was not an exception, and it can be seen that its design is biased towards flood scenarios, leaving aside drought scenarios that are perhaps the purveyors of vulnerability for the population (which have been later addressed during vulnerability studies and adaptation measures at community level).

In the strategy designed by the project to address the vulnerability of the population in flood scenarios, components were put forward including activities justified by incorrect hypotheses and/or disregarding the minimum technical data to guarantee their viability and sustainability over time. Examples of the foregoing are:

- Assuming that wetland restoration can be achieved only with reforestation activities.
- Defining reforestation actions without verifying land availability.
- Designing reforestation activities using species that are not native to the ecosystem for restoration, and with an absence of use culture by the local communities involved in the project.
- Establishing reforestation goals in an area lacking hydro climatic information such as bathymetry.
- Setting infrastructure goals to control floods with absence of hydro climatic data.
- Setting community vegetable garden and agro-silvo-pastoral systems goals without verifying land availability for that purpose.
- Setting production goals for natural handcrafted fibers without the previous knowledge about the communities in the region with the vocation for such production.
- Setting adaptive infrastructure goals for the population with absence of hydro climatic data

The issue at the core of this project is climate change and adaptation of vulnerable communities and wetlands to climate variability in the direct

area of influence of the floods that took place in 2010, which extended until late 2012.

The official procedures to submit a project began in the first semester of 2012: *"Reduction of Climate Change Risk and Vulnerability in the Momposina Depression – Colombia"*, submitted to the Adaptation Fund (AF), at a time when the country was still adopting institutional strategies and reforms to address the phenomena that resulted from the 2010-2011 rainy season.

The institutional changes at a national level, which occurred in the 2012 period and were considered to be exogenous factors, impacted the performance of the project. Nevertheless, this led to the adoption of actions by the members of the Steering Committee of the project in order to harness contributions from the technical and financial resources of the National Adaptation Fund (AF), and to implement activities with technical criteria based on scientific information and climate change and hydrology scenario modeling. The purpose is to reduce the vulnerability of the beneficiary population of the project in every case.

The decisions made by the Steering Committee are based on technical studies performed by the National Planning Department (NPD)[3]. The studies estimated that in the period between 2005 and 2015, the amount of investments made in La Mojana were approximately 550 billion Colombian pesos (approximately $200 million dollars), which were completely lost due to the effects of the natural disasters brought about by rain and flooding. These investments were lost because the infrastructure works that were executed disregarded the dynamics of the region in terms of the flooding that takes place every rainy season, which proves the importance of technical studies that enable identifying the best actions to carry out, and the importance of identifying the places were interventions are to be performed in the region. Similarly, the National Government established that the interventions to be carried out in this territory should have greater technical rigor (Rubio & Pérez, 2016).

On the other hand, the NPD in partnership with the Colombian AF[4] decided to register four macro-projects, one of which is the project for La Mojana. Consequently, the NAF put together a work team that established that one of the most important aspects in La Mojana is to recognize the flood cycles and the hydraulic and hydrological behavior of the area as highly important factors for the ecosystem since they play a role in hydric regulation. Similarly, the NPD in partnership with the National University of Colombia (UN[5] by its Spanish acronym) concluded that one

[3] Protection and Adaptation Works Construction in the Region of La Mojana. NPD. DIIF

[4] The National Adaptation Fund is and entity attached to the Ministry of Finance and Public Credit of the Colombian Government. It was initially created to address the economic and social construction, reconstruction, recovery and reactivation of the areas that were impacted by events arising from the phenomenon of La Niña in the years 2010 and 2011. Taken from http://sitio.fondoadaptacion.gov.co/index.php/el-fondo/quienes-somos.

[5] Inter-institutional partnership agreement signed to create models of La Mojana as the first project of the National Modeling Center. (National Adaptation Fund, 2013)

of the most important factors in the Mojana intervention was to have detailed information on the barometry and topography of the region.

The foregoing resulted in an inter-administrative partnership between the NPD, MESD, AF, IDEAM and CORMAGDALENA (2013 and 2014). As shown in Figure 1, these entities have different responsibilities in the organizational chart of the project. Their roles vary from coordinating and formulating public policy to acting as the top environmental authorities in their areas of jurisdiction, as it is the case of the Corporations. Therefore, the purpose of the agreement was to join knowledge, efforts and resources for the benefit of the affected population in this area. The result of this partnership was a detailed technical exercise on the hydrological behavior of the area. This product was validated by its hydrological models and was delivered by the Adaptation Fund to the project in the first semester of 2016.

The abovementioned aspects influenced the development of the project to the extent that the members of the Steering Committee considered that no investments would be made until there was certainty on the hydrological behavior of the area (and the study ciompleted). That is, accurately establishing the flood-prone and dry areas, considering that the results of these investments depended on such behavior. This decision aimed at avoiding negative experiences (infrastructure investments with a high likelihood of being lost in the event of new rains and flooding).

The MTR deemed the decision of the Steering Committee to halt infrastructure works or other types of activities that depended directly on technical data to be an appropriate one, since this data determines the viability of the options and the way adaptation decisions for La Mojana are to be addressed. In other words, this hydrological data underpins the adaptation decisions to be made.

Finally, the design of the project strives for gender equality in the goals set out in its formulation, which the MTR underscores as a key strategic element for the project to be adopted by the communities.

4.1 Results Framework /Logical Framework (Results at MTR and likelihood of achievement)

The conceptual design of the project aims at reducing the climate change vulnerability of the population settled in the region of La Mojana. Two groups stand out in the way the project components were structured: The first one is for components 1 and 4, which refer to generating and processing climate variability data, and to strengthening institutions on climate change matters. These activities indirectly reduce vulnerability by themselves and are necessary input for activities that directly reduce vulnerability. The other group, components 2 and 3, contain activities that unquestionably and directly reduce vulnerability by themselves.

These conditions are considered in the budget structure of the process, where components 1 and 4 have 17% and 5% budget allocations, respectively, for a total of 22%; and components 2 and 3 have 31 and 30% budget allocations, respectively, assigned to them for a total of 61%. Thus, the success of the project will be achieved by a balanced progress between these two groups of components.

An interpretation of the probability of achievement, without taking into consideration the breakdown of components above, could give a wrong idea about the main purpose of this project, which is to reduce climate change vulnerability. This does not mean that components 1 and 4 are any less important or that they could be discarded; quite simply, breaking down these groups is necessary for an accurate reading of the likelihood of the success of the project.

Having this in mind, the MTR addresses the evaluation of the components put forth in the Logical Framework Matrix, under the likelihood of success analysis that is described below:

Project Objective	Indicator	Goal	Verification Mechanisms	Likelihood of Achievement	MTR Analysis
To reduce the vulnerability of communities and ecosystems to flood and drought risks associated with climate change and variability in the region of the Momposina Trough.	Number of low-income households in the three municipalities of the project area that are vulnerable to climate-related events that have been beneficiaries of the project, disaggregated by the gender of the head of household.	By the end of the project, at least 54,000 people in the most vulnerable conditions (10,800 families) from the municipalities of Ayapel, San Marcos and San Benito Abad in the region of the Momposina Trough, with a surface area of 406,054 hectares, will benefit from the solutions proposed by the project.	- Surveys - Vulnerability and risk assessment	Moderately Satisfactory (MS)	The average for the execution of activities to meet the project objective is satisfactory. This is due to the justified delay of components 2 and 3 primarily, which were awaiting studies to perform some of their activities, such as: hydro climatic, wetland ecosystem rehabilitation and design parameters for building adaptive infrastructure. The foregoing were delivered throughout 2016.
Result 1: The Enhanced Environmental Information System – EIS strengthens local capacities and facilitates decision-making regarding climate change adaptation. .	Number of hydro climatologic stations in La Mojana that provide climate data reports as part of the national network.	N/A	- Field reports - Climate-related databases - Project reports: annual and bi-annual reports, and mid-term and final reviews	Highly Satisfactory (AS)	The field assessment showed the implementation of nine (9) climatology stations and an additional two (2) projected stations that were required pursuant to the diagnosis and criteria of the technical and management teams of the project. The Logical Framework of the Project does not quantify the goal for this indicator; nevertheless, the project seeks to improve and automate all the climatology stations of importance to the region of La Mojana, according to the baseline, in order to meet the SMART objectives.

	Number of institutions and regional and local actors that have access to climate-related information and who use this information in their work.	By the end of the project, at a local and regional level, direct access to climate-change-related information will have increased in the three municipalities chosen, as follows: a) three offices of the mayor (Ayapel, Sam Marcos and San Benito Abad), b) three Risk Management Municipal Councils, c) two Risk Management Departmental Councils, d) two CARs (CVS and CORPOMOJANA), and e) eleven community-based organizations.	- Local surveys - Information requests and access records. - Documents from plans and projects carried out at a local level - Project reports: annual and bi-annual reports, and mid-term and final reviews.	Highly Satisfactory (HS)	Progress on the part of the institutions and CBO can be seen in the use of information produced in climatology stations, in route to achieving what is expected of the project.

	Number of rural communities and institutions in the area of coverage benefitting from an early warning system that reduces risks from extreme climate events.	After five years, 100% of rural communities (6440 women and 6860 men), and local and regional institutions in the area would benefit from an early warning system.	- Early warning reports - Surveys - Project reports: annual and mid-term reports, and mid-term and final reviews.	Moderately Satisfactory (MS)	To the date of this review, component 1 of the project has reached most of the communities projected in the formulation, and has incorporated other communities, also vulnerable, from the area of influence, where data-gathering work with stadia measuring telescopes has been performed to measure the levels of water rise and fall, which enables the community to have a relationship with and knowledge of said tides. Even so, although the infrastructure to generate data is installed and available, work still needs to be done in towards the appropriation of data processing by local communities and institutions, to consolidate an early warning system to consolidate an early-warning system and establish the regional operator who will be in charge of managing the information.

Result 2: The regulation and buffering capacity of wetlands has been recovered by giving multiple uses to the landscape, thus reducing the climate change impact vulnerability of local communities	Percentage of households in La Mojana that benefit from flood-control infrastructure, disaggregated by the gender of the head of household	By the end of the project, at least 50% of the families from the three municipalities chosen should benefit from flood-control infrastructure, as follows: • At least 50% of families (656 men and 712 women) in the villages of Sincelejito, Cecilia and Sejeve (Municipality of Ayapel). • At least 50% of families (746 men and 808 women) in the townships of El Pital, Cuenca, Las Flores and el Torno (Municipality of San Marcos) • At least 50% of families (3,534 women and 3,820 men) in villages of Las Chispas, Pasifuere, Tosnobán and Chinchorro (Municipality of San Benito Abad)	- Field surveys and reports - Project assessments: annual and mid-term reports, and mid-term and final reviews.	Unsatisfactory (U)	To the date of this review, this goal had not been implemented because the results of the hydrological model and the study of the design parameters of the adaptive infrastructure were not available. At the moment, the families of the project have not been benefited with infrastructure to control floods.

	Surface (in hectares) of rehabilitated wetlands that contribute to reducing climate change vulnerability.	At least 700 hectares of the tributary system of the three main lagoons / wetland complexes were rehabilitated, as follows: • 550 rehabilitated hectares of the Ayapel Lagoon / wetland complex affluent system (creeks Barro, Muñoz, Viloria, Quebradona, and La Escobilla). • 75 rehabilitated hectares of the affluent system of San Marcos Lagoon/ wetland complex (west bank of San Jorge river along Santiago and Canoas creek) • 75 rehabilitated hectares of the San Benito Abad (Grande and Corozal creeks) wetlands affluent system.	- Rehabilitation plans - Field surveys - Project reports: annual and mid-term reports, and mid-term and final reviews.	Unsatisfactory (U)	During the first semester 2016, the results of the hydrologic model and the proposal for wetland rehabilitation were obtained. However, at one year from finishing the project, the goal of rehabilitating 700 hectares has not been met. It is worth mentioning that Humboldt's proposal for the rehabilitation of wetland ecosystems is not oriented toward a number of hectares but it focuses on having the correct support for the special analysis to direct the actions of restoration. Similarly, characterizing the ecosystem services to direct the rehabilitation actions towards the restoration of benefits in order to benefit the population.
Result 3: Introduction of agroecological practices that are resilient to climate change and construction design to help local communities reduce their vulnerability to	Number of local agroecological climate-change-resilient initiatives adopted by communities (disaggregated by gender) in the target area of the project.	By the end of the project, at least six (6) agroecological initiatives have been implemented in the municipalities, as follows: Twenty (20) vegetable gardens have been built on pilots to grow vegetables and tubers (for example, onion, lettuce, yam, pumpkin and tomato), covering two (2) hectares in	- Field surveys and inventories - Field reports - Monitoring databases - Technical reports on the project	Moderately Satisfactory (MS)	Upon reading the goals proposed within the results, it is noted that they were not executed according to the initial formulation but they were reoriented within the execution of the project. As of the participatory rural diagnosis, the project technical and management teams determined the need to assist the vulnerable population in drought and flooding conditions.

climate change impacts.		the municipalities of the project, benefiting 415 families (996 women and 1,079 men). Sixty (60) fast-growing family organic crops and various vegetables, tubers and fruits (i.e., beans, yucca, corn, yam, pumpkin, watermelon and melon) (2 ha/family), located on two			To this end, it was decided to carry out agro ecological initiatives through family vegetable gardens in the models of traditional seeding, instead of communal vegetable gardens on piles. This was the case given the land tenure barrier and the distances between settlements of the different communities. About 1300 family farms have been implemented, mainly in response to flood and drought events. These

		parcels of held by the community in the river fords of the project municipalities. 440 hectares of native rice crops (resistant to wet conditions, low-cost and free of agrochemicals) in three municipalities of the project area, benefiting 2,640 families (6,340 women and 6,860 men). An artisanal fiber production program that benefits 120 women from the three municipalities.			vegetable gardens include the production of some vegetables and basic food crops. Biopreparations are also implemented to obtain clean production. However, the population has told the technical team that the maintenance of "land crops" is complex, so they are sometimes below the maximum flood level. Out of the 440 hectares of native rice cultivation, around 325 hectares have been cultivated. These crops are resistant to the climate conditions of the region and to mercury contamination, thus it benefits 418 families in 11 communities. In view of the identification of drought conditions needs, the project management was reoriented to carry out activities not contemplated in its initial formulation, such as the installation of rainwater storage tanks and the purification of the water by means of activated carbon filters and beds of sand. The goal that has not yet been implemented is the program for the production of natural handicraft fibers that will benefit 120 women from the three municipalities, due to the difficulty in identifying the communities with this type of production vocation.

	Number of structural architectural adaptation measures carried out in the area to reduce flood vulnerability.	By the end of the project, structural measures have been implemented in at least seventy schools and homes, as follows: - 10 education units built on pilots in the communities of Cecilia (3), el Totumo (4), El Cuchillo (1) and La Coquera (2) (municipality of Ayapel), with support from the Ministry of Education. - Proposal to build 8 classrooms in the municipality of Ayapel. - There are no adaptation housing units in the municipalities of Ayapel, san Marcos and San Benito Abad, although some designs have been made. By the end of the project, structural measures have been implemented in at least seventy schools and homes, as follows: Ten (10) additional education units built on pilots or of a floating type to adapt to flooding in the municipalities of Ayapel, Sand Marcos and San Benito Abad, benefiting 350 students (170 girls and 180 boys). Sixty (60) existing houses were	- Architectural designs and floor plans - Local surveys - Field reports - Project reports: annual and bi-annual reports, and mid-term and final reviews.	Unsatisfactory (U)	The realization of this goal has been delayed due to the NAF hydrological studies. These goals are subject to deadlines, given the fact that one (1) year away from the conclusion of the project (march, 2018); their structural design is barely being defined. According to the project technical team, the budget set to complete the project, a prior, is lower than the cost requirements for standard infrastructure at La Mojana region.

		adapted to reduce the flooding effect risks in rural populations (60 women, 60 men, 115 girls and 125 boys) in the municipalities of Ayapel, San Marcos and San Benito Abad, benefiting approximately 300 people. Three (3) communal buildings and models of houses built on pilots or of a floating type to tackle flood risks (one per municipality).			
	Number of hectares with agro-silvo-pastoral systems established in the area of coverage of the project	- An additional area of 250 hectares established with the afro-forest-pastoral system in the rural area of the project coverage (100 hectares in the municipality of Ayapel, 75 hectares in the municipality of San Marcos and 75 hectares in the municipality of San Benito Abad).	- Field reports and verifications -Project reports: annual and mid-term reports, and mid-term and final reviews	Unsatisfactory (U)	In regards to this goal, to the date of this review no progress had been made due to the land ownership model in the region. It is estimated that this activity may not be achievable due to the time required for a reforestation plan, which would take at least three (3) years from the start of its execution in order to guarantee results.

Result 4: The capacity of institutions and organizations to implement climate change adaptation measures has been strengthened at a national, regional and local level, with the purpose of replicating activities and lessons learned.	Number of public bodies and community organizations that jointly participate in climate-risk management and adaptation planning.	- 25 CBOs, including a women´s artisanal knitting association, and community leaders from 3 municipalities (10 in Ayapel, 12 in san Marcos and 3 in San Benito Abad, out of which at least 3 are women) are strengthened and promote adaptation skills, and their communities articulate with local, regional and national public bodies. - Nine (9) public institutions are strengthened and promote measures for climate adaptation in the area of coverage, and articulate with community organizations.	- Minutes of meetings - Agreements between bodies and community-based organizations - Project reports: annual and mid-term reports, and mid-term and final reviews.	Moderately satisfactory (MS)	A general interest on climate change has been generated, both in communities and institutions, where some goals are yet to be achieved. Some of the activities for this indicator were based on erroneous hypotheses when they were formulated, resulting from an insufficient socioeconomic diagnosis. An example of the foregoing is the case of including a group of women artisanal knitters in the formulation of the goal, when it was not initially an area of the project.

	Number of local and regional plans that integrate climate change adaptation considerations.	Twelve (12) plans that incorporate climate change adaptation considerations: a) two REMPs for the CARs; two PACs for the CARs; two DDPs for departmental governments; three municipal LUPs; and three municipal MDPs.	- Minutes of meetings - Presentation of proposals submitted to the agencies in charge of land-use instruments and planning. - Planning instruments publishing	Highly Satisfactory (HS)	Due to the justified delay of the project, these activities began to be performed in 2016, and therefore their performance according to the plans (municipal, departmental and regional). To measure the impact of the project, following up and monitoring are required in the remaining execution time, including the extension recommended by this evaluation.

	Government personnel (local, regional and national) and members of the community that effectively develop new techniques to reduce climate change risks (disaggregated by gender).	At least 50% of the population in 11 communities (including approximately 3170 women) in the project area; the three mayor´s offices, the three Risk Management Municipal Councils, the two CARs, and the two Risk Management Departmental Councils (Córdoba and Sucre) have an adequate knowledge of the climate change adaptation measures proposed in the project,	- Training protocols -Course attendance lists and databases - Development evaluation report drafting capacity. - Project evaluation: annual and mid-term reports,	Moderately Satisfactory (MS)	Aside from the interpretation and use of hydro climatologic information by the community and institutions, a good portion of the established goal was achieved for this indicator. On the other hand, the importance of rehabilitating and conserving wetlands still needs to be emphasized (raising awareness) to institutions, landowners in the area and the local community.

		Including the interpretation and use of hydro climatologic information, wetland rehabilitation and conservation, agroecological practices, adaptation architecture, and their role in adapting to climate change impacts.	and final reviews. - Proposals developed in the local environment to execute adaptation measures in the area of coverage.		
	The lessons learned from La Mojana pilot activities were disseminated through the National Climate Change Portal (NCCP) and the Adaptation Learning Mechanism (ALM).	- At least ten (10) lessons learned for each project component, among which is one associated with gender, were disseminated through the NCCP. and the ALM	- The NCCP, the ALM pages and the electronic records. - Number of website visits. - Active links and comments about the project within the NCCP.	Highly Satisfactory (HS)	The project management has been able to solve the difficulties presented satisfactorily, which has resulted in lessons learned that have been communicated through the free access Project Performance Reports (PPRs) and a number of technical reports and media pieces

Source: EcoNat

4.2 Results Achievement Progress

4.2.1 Results Progress Analysis

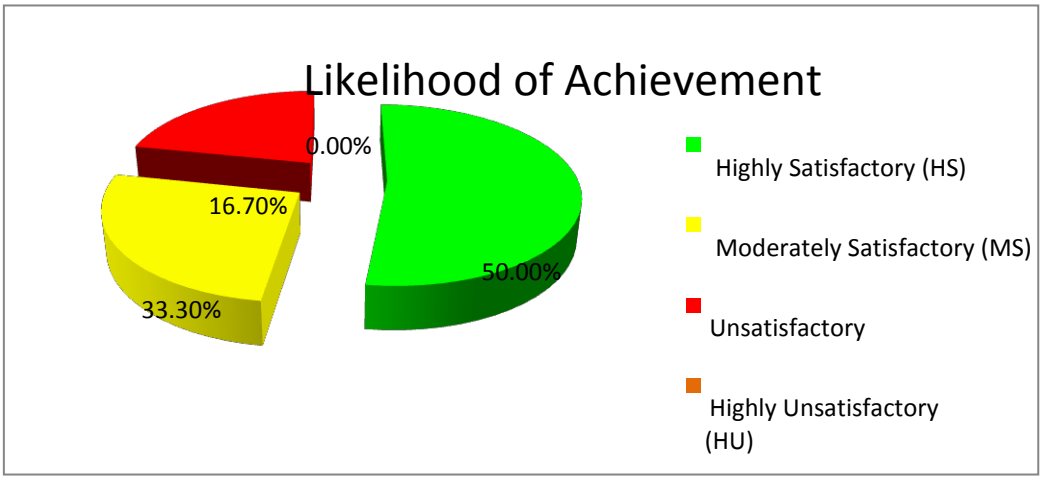
The following table shows the MTR results for the climate change risk and vulnerability reduction project for the region of La Mojana, according to the likelihood of achieving the goals set out.

Table 11. MTR Results, Climate Change Adaptation Project for La Mojana

Likelihood of achievement	Score	No. of achievements	Results	Percentage achieved
Highly Satisfactory (HS)	6	4	24	50%
Moderately Satisfactory (MS)	4	4	16	33.3%
Unsatisfactory (U)	2	4	8	16.7%
Highly Unsatisfactory (HU)	1	0	0	0.0%
Total score			48	100.0%

Source: EcoNat

Graph 1 MTR Results, Climate Change Adaptation Project for La Mojana



Source: EcoNat

Dirección: Calle 73 N° 7-50 / Ofi. 201
Teléfono: +57-1-540-8317
info@econat.biz
www.econat.biz

According to the evaluation parameters and according to the grade given to each of the goals, the likelihood of achieving the objective of the project could be said to be in the moderately satisfactory range; this is so because it is subject to goals that have an unsatisfactory likelihood and moderate unsatisfactory, mainly components 2 and 3. As mentioned above, the delay in the execution of the activities of these components is justified, and these are contingent upon awaited detailed studies (hydro climatology, wetland rehabilitation, among others) that will enable charting the course and establishing the most adequate procedures to perform these activities.

According to this MTR, there is a 50 % likelihood achieving some project goals in a highly satisfactory manner, namely in components 1 and 4. Similarly, there are goals with a moderately likelihood of 33,3 % among these components, where work still needs to be done and the activities performed so far must be strengthened, and thus continue to involve institutions, environmental authorities and communities so that they will continue to train and be involved, contributing a higher likelihood of achieving these goals.

Regarding components 2 and 3, there is an unsatisfactory likelihood of achievement mainly represented by a 16, 7 %. The degree of likelihood is justified by the fact that many of the activities depended upon the hydro climatologic information gathered by the Adaptation Fund, and upon the study conducted by the Humboldt Institute concerning the relevant rehabilitation of the wetland ecosystem. They also depended on the initial designs that would determine how to focus and build the adaptive infrastructure. Once the above information has been provided, the activities set forth for the goals of components 2 and 3 could be redirected and/or readjusted during 2016. Such goals involve actions that contribute directly to reducing climate change risk and vulnerability. During the initial formulation of the project, they were overestimated goals given the assigned resources, thus providing a new scope to the project goals.

Similarly, difficulties in the formulation phase, where there were assumptions that did not occur in the field, such as assumptions related to land availability both for collective vegetable gardens and reforestation; as well as assuming the availability of sufficient technical information to undertake hydraulic works, are perhaps the most evident causes for the little progress of components 2 and 3. Such complications were more evident than the performance of the implementation phase, which given the above scenarios opted for an adaptive management that prevented the project from being paralyzed, but clearly delayed the schedules initially formulated.

It is worth noting that despite the delay in the activities brought about by the lack of data consolidation, certain activities have been managing both components 2 and 3.

Among them are actions geared towards recovering wetlands by reforestation (component 2), through the natural restoration of 34 hectares and the creation of vegetable material banks managed by the communities. Even so, these actions are subject to the parameters established

Dirección: Calle 73 N° 7-50 / Ofi. 201
Teléfono: +57-1-540-8317
info@econat.biz
www.econat.biz

in the Humboldt Institute hydrological model and the wetland ecosystem rehabilitation study, and also subject to the project execution term, the culmination of which is to be in early 2018, which makes the likelihood of achieving the goals set out doubtful within this timeframe.

As for component 3, its goal focuses on developing agroecological practices in community vegetable gardens; nevertheless, facing the issues of land ownership and the lack of an associative culture, the goal was somewhat redirected to developing family vegetable gardens in response to providing food security to the communities and to teaching them the use of sustainable practices (bio preparations, compost, etc.). Similarly, in the formulation, which did not contemplate drought scenarios, project management addressed this issue by providing rainwater supply systems and activated coal and sand filters, in order to treat water and address the need of water availability.

The two examples mentioned above are noteworthy, because despite the fact that the management of the project could not fully achieve this goals, activities have been carried out that unquestionably contribute to climate change vulnerability reduction, although these are not expressed in any of the goals set out in the components.

The MTR is based on present project results, where the planned goals and the participation of the beneficiary population to perform the activities that are their competency have been used as reference. It is assumed that the methodology changes seen on the field for component 3, as well as the delay in performing relevant climate change risk and vulnerability reduction activities for components 2 and 3, were duly authorized by the project´s steering committee; the occurrence of which can be attributed to the administrative processes required to establish the action mechanisms that will guarantee the execution and performance of each of their components.

In addition to the foregoing, the analysis establishes the following:

1. **Incorrect estimating or planning:** As of the first year of execution (2013), the project has faced difficulties to achieve 100% of the planned activities; this situation was recurrent in 2014 and 2015. The foregoing reflects planning issues when considering the various deliverables for each component. The project led to delays and planning that did not adjust to reality, particularly for: component 1 (Hydrological And Hydraulic Modeling; Climate Scenarios), component 3 (adaptive infrastructure for schools, houses and community centers) ***(High timeliness and execution risk).***

As far as component 4 is concerned (number of local and regional plans that comprise LUP climate change adaptation considerations), it was only until 2016 that the climate change subject matter was included. The reason came from lessons learned and due to the fact that only until then were the territorial activity plans modified. Pursuant to valid regulations for the formulation of development plans and action plans of territorial entities and environmental authorities, no

Dirección: Calle 73 N° 7-50 / Ofi. 201
Teléfono: +57-1-540-8317
info@econat.biz
www.econat.biz

inclusion could be done earlier, and this only happened until the new term in office of local and regional governments.

Pursuant to the foregoing, project planning is annual and is based on the products, activities and goals set forth in the PRODOC, wherein the vulnerability analysis results of hydrodynamic modeling, eco-regional restoration planning performed by the Alexander von Humboldt Institute, and the general progress made in generating data for component 1 were only considered until 2016.

2. Follow-up: The MTR finds that with the prospect of the first year, meetings should have been held more frequently between the steering and technical committees in order to monitor the deliverables and the progress of the project. It is important to measure progress in terms of the impact indicators almost in real time in the future compared to expenses execution (costs). The order in which the different activities of each component are to be carried out should be given great importance, in addition to how they complement and articulate with each other, and the time needed for each. ***(High follow-up and monitoring risk).***

3. Financial management auditing: the project documents the auditing results, in which good expense management can be seen, without necessarily itemizing the unit costs for each of the activities performed,

4.2.2 Remaining Barriers to achieve Project Objectives

Achieving project objectives is subject to aspects that enable adjusting to the reality of the areas of intervention in the country. It is important to bear in mind that adaptation is understood as a “process” and not as a final state, whereby it implies follow-up activities and activities that must be periodically reviewed, including new monitoring or scientific data that is generated.

Therefore, generally speaking, the main barriers that explain the difficulties in achieving certain activities and goals are due to the change in context in the country and in the respective area of influence where the project is carried out. In the formulation stage, the context of the country and the region had a set of characteristics that changed during the execution of the project. The current technical capacities, conditions, hydrodynamic study results in the region and the socioeconomic aspects in the area of influence of the project act as barriers, which is why the MTR recommends adjusting some activities and goals according to the reality of the area, based on a more thorough study that will enable developing a strategy to overcome said barriers.

- Given the justified delay that has been discussed throughout the review, the main barrier is the remaining execution time, mainly for components 2 and 3, which are key to reducing climate change vulnerability. From the information provided by the

Dirección: Calle 73 N° 7-50 / Ofi. 201
Teléfono: +57-1-540-8317
info@econat.biz
www.econat.biz

Adaptation Fund towards the end of the first semester of 2016, the project already has the necessary inputs to redirect and adjust goals and activities in primarily components 2 and 3, which will guarantee achieving the core objective of the project, which is to reduce climate change risk and vulnerability.

-

- Social appropriation of the project by the community is a barrier that must be eliminated through the design and implementation of strategies, which introduce climate change elements, concepts and good practices whilst addressing the everyday needs of the people that condition their quality of life in the middle and long term. This should be a determining factor to be considered in redirecting activities in general.

- Considering that this is a relatively isolated region that is far from the country´s economic centers, cost underestimation is a barrier to achieving some goals. Such is the case for the adaptive infrastructure proposed, both for housing and institutional, where the budget allocated to it in this project proves to be insufficient for fully achieving this goal, considering what the project experienced. Even more so if the need to invest in bioclimatic designs to address the needs and expectations of the community is considered. It is the same case for the activities of the agroforestry-pastoral systems of component 3, where it was noted that during the execution of the project, the goals set forth in the formulation of the project were overestimated, especially taking into account land ownership in the region and the availability of resources allocated.

- The results of the National Adaptation Fund study show that trying to restrict waterways is not just innocuous, but it also transfer the destructive impact downstream. The generalized perception, both of the community and of local authorities, on the type of hydraulic works (dikes, barriers) that must be built to mitigate climate change risk, is an ideological barrier that must be overcome with a significant effort in communication, dissemination and education, which will lead to new paradigms regarding the landscape, use and enjoyment of the environment; on the other hand, the idea of open lagoon systems and channels to mitigate climate change variability must be disseminated, as that is the natural condition of this ecosystem.

4.3 Project Execution and Adaptive Management

Dirección: Calle 73 N° 7-50 / Ofi. 201
Teléfono: +57-1-540-8317
info@econat.biz
www.econat.biz

4.3.1 Management Mechanisms

In the opinion of the MTR, the management of the project has been highly satisfactory, considering the changing environment that the project was initially subject to. The institutional consensus to prioritize the efficacy of the project is noteworthy, committing to strict compliance with the program´s deadlines, where importance is given to gathering the minimum necessary elements that ensured the assertiveness of investment decisions that were needed in the project. Another factor that cannot be left aside is the pressing social issues contemplated in the project. For example, component 3 was executed despite the absence of information and in such a way that the activities performed have aimed at guaranteeing food security of the vulnerable population and the well-being of the population that has been affected by the effects of climate change and the climate variability in the region. The MTR could evidence such perception in the community.

The following section describes the management mechanisms for each one of the components:

- **Component 1:** This component amounts to 17% of the budget and is comprised by two main activities. The first is establishing automated hydro climatic actions in the region in order to monitor climate variability, which has not been delayed at all and has been achieved as planned. The second is the implementation of an Early Warning System – EWS that makes good use of the information produced by the installed infrastructure, which includes the appropriation of both the network of stations and the information produced by the community and local, regional, and national institutions. This activity was subject to the acquisition and consolidation of all hydro climatological station equipment to begin generating the information. The progress that the project has made in this regard, at a regional and local level, is its endeavors to guarantee access to hydro climatic data, through IDEAM bulletins provided local and regional territorial entities, such as environmental authorities and municipalities. Considering that IDEAM is a National entity that cannot address the region exclusively, the project is working on the identification and definition of a regional operator through agreements with local and regional institutions so that they will undertake managing information at an appropriate scale.

- **Component 2:** This component has a budget allocation of 31% of the resources. To this date, 4.86% of the activities regarding wetland restoration in the area of intervention have been executed, which corresponds to 2% of the total project resources, where 29% of these allocated resources are yet to be executed.

  According to the opinions of the UNDP technical and steering team representatives regarding the climate change component; the National Adaptation Fund, being a strategic project partner, suggested that the component should adjust to the

Dirección: Calle 73 N° 7-50 / Ofi. 201
Teléfono: +57-1-540-8317
info@econat.biz
www.econat.biz

hydrological model results prior to performing the activities of component 2, which has had an impact on the execution of these activities to the present date of this review.

The actions per se to achieve the full wetland restoration put forward in the initial project guidelines, are subject to the hydrological model provided by the Adaptation Fund towards the end of the first semester of 2016 and to the rehabilitation of the wetland system, pursuant to the proposal made and submitted in the second semester of 2016 by the Alexander von Humboldt Biological Resources Research Institute.

The achievement in approaching the community and teaching about the importance of restoring these ecosystems are a noteworthy aspect of these efforts. In order to do so, workshops have been taught by the technical team, and vegetable material banks have been created, which are managed by the community and will be of the utmost importance in the wetland rehabilitation process.

- **Component 3:** This component has a budget allocation of 30% of the total resources. As mentioned earlier, the marked contrast between large landowners and community settlements with low land availability has hampered the appropriate performance of the activities proposed in this component.

An example of the above is the creation of community vegetable gardens that were initially planned for areas of 2 hectares for each municipality, which should withstand flooding events without losing their productive capacity. In the absence of available land for this activity, in addition to the absence of an associative culture in the population, the adaptive management of the project steered this activity in the direction of creating family vegetable gardens, giving priority to the food security of the population despite the technical difficulties involved.

According to what was observed in the field, there is a risk warning in some of the reviewed samples in the sense that some of the family vegetable gardens which do not generally exceed 35 square meters are being located below the maximum flood level of years 2010 – 2011. According to the technical team, families try to meet the height conditions stipulated in the land crops. Nevertheless, the families express that it is a work that requires a lot of effort and dedication, and when maintenance is required, it is difficult to reach the indicated heights again.

On the other hand, the socialization and the training given by the technical team to the community highlight the care and maintenance of the vegetable gardens by

Dirección: Calle 73 N° 7-50 / Ofi. 201
Teléfono: +57-1-540-8317
info@econat.biz
www.econat.biz

means of preparing organic compost, implementing biopreparations, protecting soil by using waste products from the cleaning of wild crops, using live or dead coverage, among others. However, due to the reduced size of the existing vegetables gardens, they could face the risk of losing their productive capacity given the intensity of crops per area unit. The permanent productive capacity without the appropriate corrective measures could lead to the desertification of the soil. In order to avoid desertification, it is peremptory for families to continue with the procedures taught by the technical team until now.

Another example is agroforestry-pastoral plantations, which are yet to be implemented to the date of this review due to a lack of land availability. To address this, the project decided to include new communities, that are equally vulnerable, that have a greater land availability which makes the performance of this activity feasible within the area of influence. However, the timeframe to conclude the project is considered a risk factor, compared to the minimum period of three years that is required to guarantee the success of the restoration and/or reforestation activities of the forest areas that were lost to the effects of flooding.

In addition, component 3 includes the adaptive infrastructures activities that, to this date, have not been executed due to the fact that hydro climatologic information of La Mojana region was being awaited. Nevertheless, a study involving the participation and interaction with the communities of the project was conducted, in order to define the design parameters of three housing prototypes and three community centers.

Regarding the evaluation of climate change vulnerability reduction in these activities, nothing can be done until the follow-up and monitoring activities are performed.

The identification of the drought scenario effects on the community are worth noting in the adaptive management of the project, which were not contemplated during its formulation, regarding the water supply for human consumption. The project redirected the activity to provide basic rainwater collection and treatment mechanisms to the community, using tanks (with a capacity of 1000 liters) and activated coal and land filters. This measure has an undeniable repercussion on the quality of life of the population, reducing vulnerability and fostering the appropriation of the project by the community. Moreover, the redirection of the activity of providing productive infrastructure to the community is worth noting, not just because of food security but also to generate revenue, by installing three (3) rice mills and building drying areas, which adds value to the harvested products and fosters association among the community.

Dirección: Calle 73 N° 7-50 / Ofi. 201
Teléfono: +57-1-540-8317
info@econat.biz
www.econat.biz

- **Component 4:** This component has a budget allocation of 5% of the resource total. Within this component, 8 CBOs have been formalized, and clear guidelines to address climate change mitigation have been implemented in the local, regional and departmental development plans for the 2016 – 2019, term emphasizing lessons learned during the project that is the subject matter of this review.

  The fact that these entities are contemplating climate change in their planning instruments is a first step towards adaptive management. There are institutional management challenges that could address the capacity to identify and respond to new and dynamic situations. In order for the adaptation measures of the project to be successful, a regional and national-level institutional articulation must be addressed. Similarly, the need to develop an adaptive capacity in local entities has been identified, in order to consolidate the implementation of adaptive measures.

  Regarding the training efforts performed in this component, these have been well received by local actors, which allows us to recommend a continuous training strategy in partnership with local universities, as we have been doing, on the different topics addressed by the project and topics that are of interest to the community, which will reinforce and facilitate appropriation processes.

Finally, as for the overall management of the project, it is important to note that due to the delays in the main investment components (2 and 3), the absence of a continuous monitoring and follow-up system for the impact indicators to provide feedback to the project managers (Steering and Technical Committee) has thus far not been very relevant. As of now, when these two components are entering a high execution stage, the MTR firmly recommends considering a budget allocation that is appropriate for this activity, in addition to a time extension to the proposed execution.

The UNDP technical team, as well as the members of the steering committee, have provided information on the project in an appropriate manner, and have provided support in the field to make contact with representatives at various levels in the region and with key actors that have a direct impact on regional development, thus facilitating communication with the whole of the beneficiary population to access project results and lessons learned as key inputs to the development of this review.

Nevertheless, it is necessary to strengthen the UNDP technical team in the social arena; meaning, the intervention of more socially-oriented professionals is needed to continue working together with the beneficiary population, in order to reinforce the benefits of applying the knowledge of climate change adaptation measures.

Dirección: Calle 73 N° 7-50 / Ofi. 201
Teléfono: +57-1-540-8317
info@econat.biz
www.econat.biz

4.3.2 Work Planning

As mentioned earlier, it is evident that this project has suffered justified delays. The lessons learned in terms of planning that this project has yielded is worth noting, provided that the success of the project was not subordinated to the execution commitments planned in the schedule, but rather enabled a flexible analysis to guarantee a greater assertiveness in the efforts made.

Since the first year of execution (2013), the project has faced difficulties to fulfill 100% of the planned activities, a situation that has been recurrent in 2014 and 2015. The foregoing indicates that there were planning issues when considering the different deliverables for each component. Project planning was long-reaching and short-term and detailed work plans were not considered, which brought about delays and planning that did not adjust to reality, particularly for: component 1 (Hydrological and Hydraulic Modeling; Climate Scenarios), component 3 (Building ten (10) additional education units) ***(High time and execution risk)***.

Pursuant to the foregoing, project planning is annual and is based on the outputs, activities and goals set forth in the PRODOC, wherein, as of 2016, the vulnerability analysis results of hydrodynamic modeling, eco-regional restoration planning performed by the Humboldt Institute, and the general progress made in generating data for component 1 are considered.

As for **follow-up**, the MTR finds within the prospect of the first year that meetings should have been held more frequently between the steering and technical committees in order to monitor the deliverables and the progress of the project. It is important to measure and follow up the progress almost in real time in the future compared to expenses execution (costs). It is recommended to give greater importance to the order in which the different activities of each component are to be carried out, in addition to how they complement and articulate with each other, and the time needed for each. ***(High follow-up and monitoring risk).***

On the other hand, the project had some documented management proceedings, but the operations and processes are at a basic functionality level. Moreover, the project has documented financial management auditing results, although these do not get into a level of detail that establishes the accrued expenses report for the project. Similarly, the project entails a goals, measurable objectives and strategies work plan; however, no follow-up system for the project budget that was not invested in each of the terms is to be found, as of the beginning of its execution.

Dirección: Calle 73 N° 7-50 / Ofi. 201
Teléfono: +57-1-540-8317
info@econat.biz
www.econat.biz

4.3.3 Funding and Co-funding

In its first three years, the project has executed 27% of the approved resources (7.8 million dollars), where the remaining 73% is to be executed in two years, according to the presentation made in Steering Committee No. 6 of June 2016. Different aspects have impacted the level of financial execution in the project; on the one hand, the total amount of resources for the project has been affected by the exchange rate (the dollar has gotten stronger), which is known as devaluation, meaning the decreased value of the Colombian peso vs. the dollar. A lower exchange rate was considered at the beginning of the project, and the current exchange rate gives the items considered in the project a lower dollar value. Thus, the budget execution decreases.

According to what was discussed in Steering Committee No. 6 (MESD - UNDP, 2016) the components with the greatest budget execution are components 1 (49%) and 4 (41%), while component 2 (wetland restoration) has a 6% budget execution and component 3 (resilient agroecological practices) has 25%. It is worth mentioning that within the last component, the product related to adaptive infrastructure has higher budget allocation but it has not been implemented to this date. Thus, it affects the percentage of execution compared to other products from the same component. This is the case of family vegetable gardens, which have had good execution in terms of budget and programming.

- **Component 1:**

The Colombian (National) Adaptation Fund covered the cost of the activities in component 1 associated to hydrological modeling. They covered La Mojana region, including the three municipalities initially formulated in the project. This condition affected the execution since it took longer than what was initially established. However, it was the right decision since there is better technical information and it is more appropriate for planning and executing the activities of the other components. This can be explained in component 1 as the implementation of the nine (9) hydro climatologic stations procured and installed, and direct access to climate change information in the three beneficiary municipalities.

Table 12 Component 1 Environmental Information system Strengthening 2013 -2016 Budget Execution Progress
(Figures in millions of USD)

Components	Project Allocation	2013-2016 Execution	%	Pending Execution	%
Strengthening the Environmental Information System	1,348,797	660,409	49%	**688,388**	51%

Taken from: Minutes of Steering Committee No. 6

Dirección: Calle 73 N° 7-50 / Ofi. 201
Teléfono: +57-1-540-8317
info@econat.biz
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Component 2:

Component 2 has 6% progress in budget execution, and the goal *"By the end of the project at least 700 hectares of the tributary system of the three main lagoons / wetlands complex*". Nevertheless, this last goal was replaced with the Humboldt Institute proposal "*Wetland system rehabilitation in the region of La Mojana to mitigate flood effects"* (Alexander von Humboldt Biological Resources Research Institute, 2016). This responds to a reorientation of the goals in this component and to a better planning response for its execution.

Table 13 Component 2 Ecosystem Restoration.
2013-2016 Budget Execution Progress
(Figures in millions of USD)

Components	Project Allocation	2013-2016 Execution	%	Pending Execution	%
Ecosystem Restoration	2,478,665	155,307	6%	**2,323,358**	94%

Taken from: Minutes of Steering Committee No. 6

- **Component 3:**

In carrying out component 3 Adapted Productive Measures, a decision was made to wait for the hydrodynamic modeling data, the definition of flood threat scenarios and risk analysis, which caused delays in the planning and implementation of the goal associated with *"Structural measures have been implemented in at least sixty homes, 10 schools and 3 community centers"*. This was done to prevent wasting resources on infrastructure that did not comply with the flood levels, maximum temperatures, among others.

Table 14 Component 3 Resilient agroecological Practices
2013-2016 Budget Execution Progress
(Figures in millions of USD)

Components	Project Allocation	2013-2016 Execution	%	Pending Execution	%
Resilient Ecological Practices	2,417,635	594,212	25%	**1,823,423**	75%

Taken from: Minutes of Steering Committee No. 6

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- **Component 4:**

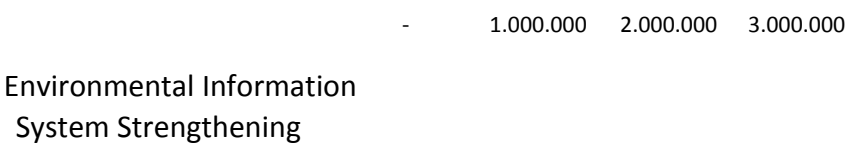
For component 4, activities such as: nine (9) strengthened public institutions that promote climate change adaptation measures; at least 50% of the 11 communities and local institutions have adequate knowledge of climate change adaptation measures; at least ten (10) lessons learned for each project component, among which is one related to gender, are being disseminated by the NCCP and the ALM, indicating that it is highly likely to achieve the objectives according to how these were established in the formulation of the project.

Table 15 Component 4 Institutional Strengthening
2013-2016 Budget Execution Progress
(Figures in millions of USD)

Components	Project Allocation	2013-2016 Execution	%	Pending Execution	%
Institutional Strengthening	889,038	364,996	41%	**524,043**	59%

Taken from: Minutes of Steering Committee No. 6

For the 2016-2017 year, a set of activities have been planned to enable progress in the budget execution, due to the fact that the inputs for component 1 "Information System Strengthening" are available, which support activities such as: i) Designing adaptive architecture measures – Models: one (1) home and one (1) community center with a Vernacular Approach; ii) Agro-climatologic Prediction, Forecasting and Warning Center, which has been established and is operational; iii) Engaging an additional 1300 families to the project to implement productive projects; iv) Designing ecosystem restoration measures with the Humboldt Institute; v) Strengthening the team in charge of implementing measures with the communities by considering the results of the Vulnerability Analysis.



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info@econat.biz
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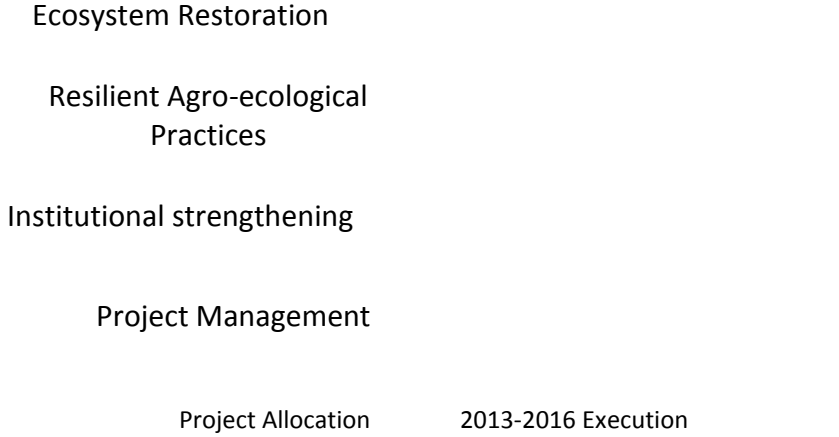

Figure 2 Project Execution Progress 2013-2016.
Taken from: Steering Committee No. 6 Presentation

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The following information is available for matching funds:

Table 16 IDEAM Matching Funds.
(Figures in Colombian pesos)

MANAGERS	FEES	DEDIC	MONTHS	TOTAL
Omar Franco	$ 8,644,609.00	0.05	12	$ 5,186,765
Omar Vargas	$ 6,380,774.00	0.2	12	$ 15,313,858
Franklin Ruiz	$ 6,380,774.00	0.2	12	$ 15,313,858
Christian Euscategui	$ 6,380,774.00	0.2	12	$ 15,313,858
Gabriel Saldarriaga	$ 4,558,902.00	0.2	12	$ 10,941,365
PROFESSIONALS				$ -
William Perdomo	$ 3,544,426.00	0.2	12	$ 8,506,622
Guillermo Olaya	$ 4,019,424.00	0.25	12	$ 12,058,272
Oscar Martínez	$ 4,019,424.00	0.25	12	$ 12,058,272
Vivian Garzón	$ 4,019,424.00	0.2	12	$ 9,646,618
Ruth Correa	$ 4,019,424.00	0.2	12	$ 9,646,618
Fernando Rodríguez	$ 1,747,011.00	0.25	12	$ 5,241,033
Carlos Triana	$ 3,544,426.00	0.25	12	$ 10,633,278
Fabio Andrés Bernal Quiroga	$ 4,019,424.00	0.2	12	$ 9,646,618
Professional fees subtotal:				**$ 139,507,033**
Use of supporting equipment and technical activities for the project				$ 33,340,580
TOTAL				**$ 72,847,613**

Source: MESD Climate Change Office

Table 17 Ministry of the Environment Co-funding
(Figures in Colombian pesos)

MANAGERS	POSITION	FEES	DEDIC	MONTHS	TOTAL
Rodrigo Suárez Castaño	Climate Change Technical Director Level 22	7,870,605	0.50	12	47,223,630
Maritza Florián Buitrago	Specialized Professional Level 19	4,656,202	0.25	12	13,968,606
Guillermo Prieto Palacios	Specialized Professional Level 19	4,656,202	0.20	12	11,174,885
TOTAL					**72,367,121**

Source: MESD Climate Change Office

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In addition, contributions were made by the Universidad Pontificia Bolivariana and Universidad de Córdoba in conducting training.

As for the financial management of the project, the MTR bases its opinion on the financial audit results of the project, performed in 2016, whereby it concludes that the expenses are duly supported and are in agreement with what the Annual Operative Plans – AOP established. According to the financial audit results, the budget execution matches the activities performed to the date of this review, which indicates that components with a delayed implementation are not associated with budget availability or with investments that are not duly supported, but rather because of a lack of technical and financial planning for each of the components when the project was formulated; for example, wetland restoration, establishing agroforestry-pastoral crops and infrastructure adapted to the climate variability of the region.

Considering the results of the financial audit and the expense management model of the project, in addition to the results found therein, the effectiveness cost can be said to be positive when compared to the development of the investments in all the components that have been the subject of expenditure. The methodology for this review assesses the activities that have been the subject of expenditure; thereby the review considers the 27% of the total project cost with the executed budget.

The funding source of the project has not been impacted by the changes that occurred during its execution, and continues to operate as the principal source of resources (Adaptation Fund). The MTR consultancy team verified that there were no objections or observations in the results of the financial audit; therefore, the results of the budget review show no impact on the main source of resources in the development of the project.

4.3.4 Project-level Monitoring and Evaluation Systems

We suggest that the follow-up and monitoring systems should not exclusively ensure the performance and control of all the activities and products as planned in the Annual Operative Plans; these should be supplemented with the development of monitoring and evaluation mechanisms geared towards results in terms of adaptation.

The current monitoring system focuses on following up on the activities put forward; therefore, establishing strengthening mechanisms to leverage the capacities of the institutions and beneficiaries involved towards generating and analyzing monitoring data should also be considered. This activity supplements the generation of available information and it triggers and drives the consolidation of existing monitoring systems on the part of the entities involved.

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In this sense, we recommend carrying out a monitoring priority analysis that will enable assessing and sizing the impact of activities performed in the project during these three years, as well as factors associated with climates change. This will enable developing specific protocols for SMART indicators and for other environmental variables.

Work needs to be done on systematic monitoring systems or platforms for gender issues, in order to assess the impact of equality policies applied or considered in the project.

The project provided the expenditure reports, and the existing budget execution and planning progress instances were reviewed. The coordination mechanism facilitates the implementation and monitoring of the adaptation program.

The contributions of La Mojana project to the Draft Country Program (Universidad Nacional, 2015) were directly related to component 3 and its poverty alleviation results. Similarly, completeness of each of the activities of components 2 and 3 contribute to an inclusive and sustainable growth. The component 4 contribution that addresses climate change in the planning instruments of territorial entities and the Autonomous Regional Corporations in the area of influence of the project promote the development of sustainable livelihoods in the region.

Within the framework of the United Nations Development Assistance Framework, the activities performed and the results achieved in the project contribute to the Sustainable Development component in item 2.1; these results will lead the country to greater equality through the progress of the Sustainable Development Objectives and reduce economic and social gender gaps, the project contributes to the Sustainable Development Objectives in the following objectives:

- **Objective 1**. Eradicating poverty in all its forms and in every place.
- **Objective 13**. Adopting urgent measures to fight climate change and its impacts.
- **Objective 15**. Protecting, restoring and promoting the sustainable use of land ecosystems, managing forests sustainably, fighting desertification, stopping and reversing lad degradation and curbing the loss of biodiversity.

Item 2.3 states that Colombia will achieve greater equality through the social and economic inclusion of the rural population, which is addressed by the activities in component 3. Item 2.4 states that Colombia will increase its social and environmental resilience and sustainability to face the effects of climate change, sustainably harness natural resources and manage disaster risks efficiently, which will be achieved by the completeness of each of the activities and results in the four components (1, 2, 3, and 4); similarly, this favors achieving the expected results in the UNDAF framework (United Nations Development Assistance Framework in Colombia 2015-2019, 2015).

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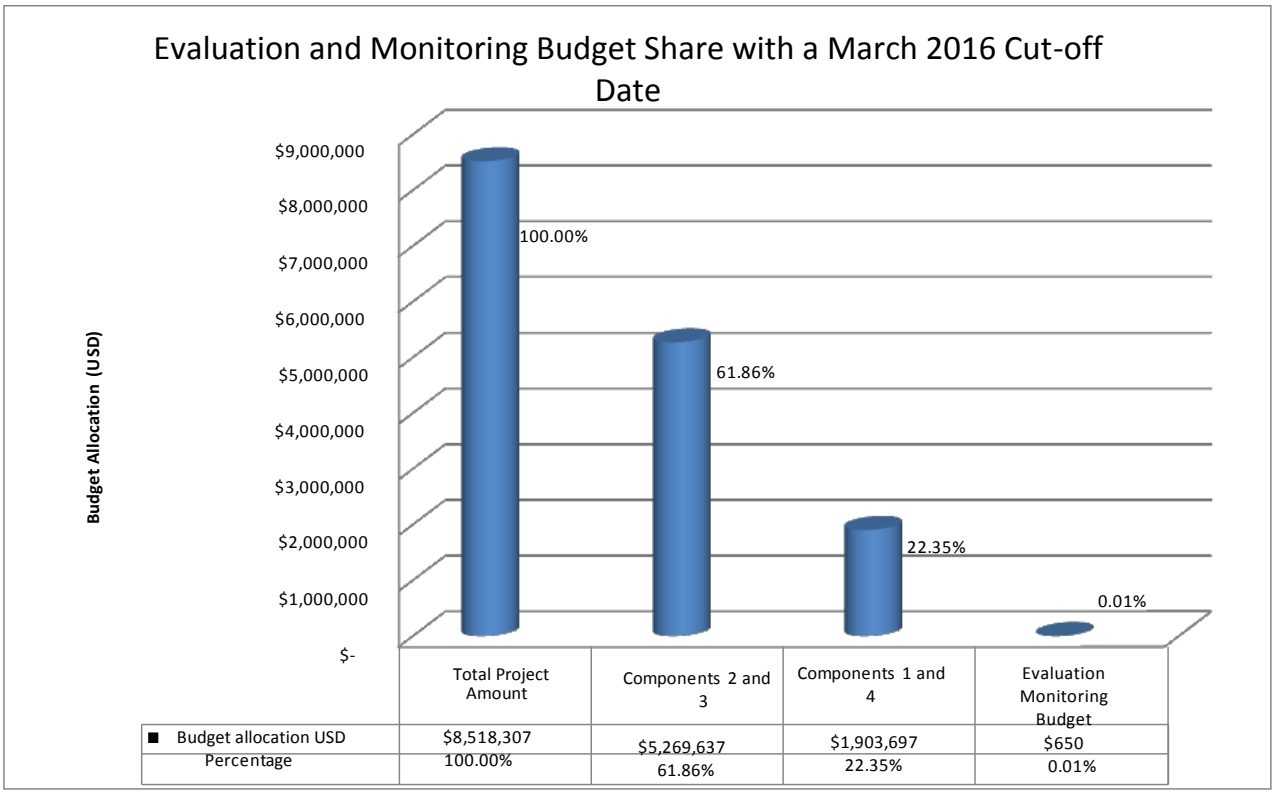
The following graph illustrates the close to nil allocation that this all important management instrument has received; namely results-oriented adaptation monitoring and follow-up.



Source: Adapted from the Adaptation Fund. Taken from: https://www.adaptation-fund.org/project/reducing-risk-and-vulnerability-to-climate-change-in-the-region-of-la-depression- momposina-in-Colombia/

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Teléfono: *+57-1-540-8317*
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It is important to bring attention to the generalized project management practice that allocates resources of around 7% and 12% of the total investment resources to evaluation and monitoring activities.

4.3.5 Stakeholder Involvement

The most relevant experience can be established in the implementation of result 1, in cooperation with IDEAM, which is underway and is an active part of the early warning system in the region of La Mojana, creating peace of mind in the general population to grow their crops and perform other productive activities in the rural sector, and embodying an important ally for a better socioeconomic wellbeing in the region.

The National Adaptation Fund Action Plan (2016) describes the interventions that have taken place in La Mojana due to extreme climate changes. During the 2003-2006 period, the flood dynamics that occurred in La Mojana were studied, which were addressed with dikes and barriers.

Initially, the hydrological studies of the region were insufficient, which led to activities being mostly based on dikes. For the 2003-2013 period, 530,000 million pesos had been assessed to have been invested in dike and barrier control. Subsequently, the first models of La Mojana were carried out, which shed light on the investment losses of the previous years, when the 2010 rainy season burst dikes and barriers.

The 2010-2011 La Niña phenomenon caused enormous disasters as it burst the marginal dike:

- 180,569 affected individuals
- 19 health centers destroyed
- 180 education facilities to be rebuilt
- 9,395 homes destroyed
- 316,641 affected hectares

The problems identified by the Adaptation Fund were: Deteriorated means of sustenance; Weakness of territorial instruments and entities, Low income generation capacities; Illiteracy and low healthcare coverage; and Deterioration of environmental dynamics.

As a result of the interviews conducted, the following can be said of this particular matter:

The project of La Mojana must continue and it must strengthen activities to socialize the climate

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Teléfono: +57-1-540-8317
info@econat.biz
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implications on the natural environment, which supports the productive activities of its inhabitants. Along with such strengthening initiatives, new lines of work should be determined to conduct integral intervention in order to adapt to the impacts of climate change.

In the study conducted by the Adaptation Fund, areas that require hydraulic interventions were identified, such as recovering channels that are important to hydric regulation in La Mojana; therefore, this would avoid repeating past mistakes where all interventions were based on building dikes, thus increasing flow speeds and generating higher pressures downstream and flood risks in the surrounding areas. This new approach aims to reestablish the natural balances of this aquatic ecosystem, for which socioeconomic intervention models must adapt to such conditions.

4.3.6 Information

During its implementation, the project produced scientific and technical information that allows for greater assertiveness in the final stage, and therefore reevaluating activities so that they will align with this new information is suggested. Currently, the project has technical information that determines the viability of the activities and the way in which climate change adaptation should be implemented in La Mojana.

The hydrological data is a basis for decision-making in terms of adaptation for the remaining execution period of the project; where extending said period is recommended in order to consolidate the goals of the four components. This recommendation entails an internal planning exercise that is aligned with the new reality of the area of intervention, primarily using the requirements of reforestation processes as reference (first year, planting, maintenance and fertilization, second and third years, maintenance and fertilization every six months).

4.3.7 Communication

It was noted during the field visit that the Technical Committee (Corporations) and the Advisory Committee (mayor's offices) are not fully aware of some of the activities included in the project and the way to execute them. Neither are they sure about the way to proceed or support some of the institutions such as mayor's offices or corporations while managing these activities. It is also important to know the activities these committees have been carrying out outside the project and how such activities relate to their goals. It is therefore relevant to strengthen and articulate the communication channels between both parties.

An example of the situation mentioned above:

Partial knowledge of component 2 "Wetland Rehabilitation", where the autonomous corporations stated their lack of knowledge as to the number of hectares to be rehabilitated, and they expressed that by forming partnerships and with the support of the project, some of the activities that they have been carrying out in the management of channels and in rehabilitating areas of the wetlands could be strengthened, whereby they stated their interest in learning about this topic in greater depth.

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On the other hand, according to the discussions held with the Ayapel Mayor´s Office, they have identified a group of artisan women that work in producing accessories made of natural fibers, and who have a history of production. This group of women could be the foundation to start addressing the goal of producing natural handcrafted fibers and having an association of women artisanal knitters in components 3 and 4. They could train other women from different communities, in order to promote passing such collective wisdom along.

These activities are examples of how the commitment of government entities and authorities to the sustainability of achievements in the long term could be secured.

On the other hand, regarding the existing communication channels available for the external communications of the project (e.g., web pages), efforts must be made towards managing and updating information, such as financial information that indicates the levels of execution of the project. Through the latest PPR report published by the Adaptation Fund, the financial information of which differs from the information provided by the project´s coordination provided the Minutes of Steering Committee No. 6, a discrepancy of eight financial execution percentage points can be observed between these two information sources.

4.4 Sustainability

Risks and vulnerabilities in the implementation of the project are identified, which have so far been handled successfully. The environmental conflicts in the region are particular to this area (illegal mining, security conflicts, armed conflict, and extreme poverty). Nevertheless, during these three years the project has consolidated work that has allowed it to form strategic alliances with the community and local entities.

The greatest risks were associated with information requirements on climate change (flood risk scenarios), which are essential for decision-making and for designing adaptation measures with middle and long term action in the region of La Mojana. This impacted the performance of several activities during the planned timeframe, but it also enabled greater cost-effectiveness for components 1, 2 and 3.

4.4.1 Financial Risks to Sustainability

From an economic standpoint, conditions of economic and financial sustainability can be guaranteed, according to investments in the territory and within the planned timeframe of the project.

Nevertheless, a high financial risk to component 2 was identified. It concerns wetland rehabilitation, where the execution horizon for this component is different to that of the remaining execution period of the project (March, 2018). Therefore, it is important to start taking measures to mitigate this risk, and establish the relevant inter-institutional communication bridges, at local, regional and national levels, in addition to establishing a commitment to continue to working on this endeavor once the project has concluded.

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4.4.2 Socio-economic Sustainability Risks

Illegal mining is one of the latent risks in the region. It also has a high impact at the environmental and socio-economic levels. Flows of rivers that pass through the Momposina depression in La Mojana region carry traces of mercury and sometimes cyanide. They are illegal mining products from neighboring areas such as the Northeastern of Antioquia and part of Cauca. This mercury is retained and bio-accumulated in this region due to the stagnation of water in areas of crops and fish, respectively. It not only affects production, but also the health and well-being of the population of La Mojana.

Another risk may be a process of rehabilitation of the wetland ecosystem in the region of La Mojana without considering the traditional uses that the community has given to the ecosystem functions that it provides. Another issue may be restoring the ecosystem with fauna and flora that are not from the area.

As part of the proposal from the Alexander von Humboldt Institute regarding the rehabilitation of the wetland ecosystem, the locations of restoration activity increase.
In addition, three main stages are considered for this: the first is an “information gathering and analysis” stage, with an estimated duration of 30 months; the second is a “amphibian socio-ecosystem strategy implementation” phase, with a 30-month duration; and a crucial third stage associated with “comprehensive restoration monitoring design” which would last 22 months. The three stages respond to a systematic and comprehensive task for each one of them. Some of the activities comprised will be simultaneously executed in order to recover the physical structure and the flooding dynamics in the region, in addition to increasing water regulation and supply. The MTR supports Humboldt’s proposal to recompose the provision of ecosystem services and improve the quality of life of the society in La Mojana region. Similarly, the need to extend the project execution period to carry out the activities foreseen in this proposal is also justifiable.

4.4.3 Sustainability Risks associated with the Institutional Framework and Governance

By passing a National Risk Management Policy for the first time (Law 1523 of 2012), and with the articulation of a National Climate Change Adaptation Plan (NC CAP), provides the new institutional context that contributes to the sustainability of projects of this nature, provided that these policies are a roadmap to highlight the importance of climate change risk and vulnerability reduction and variability. These are the new determining factors of governance to continue to promote projects with these characteristics, and that will in turn assist vulnerable communities in facing the effects of climate variability (periods of extreme flooding and drought).

Through this project, climate change issues have been included and articulated in regional, departmental and local development plans, contributing to strengthening institutions on this matter and giving continuity to the activities geared towards climate change risk management.

Additionally, maintaining long-term sustainability of activities such as food security, availability of potable water, recovering channels and wetlands, developing agroforestry-pastoral systems, processing early warning data, among other activities, is important for:

a) Institutions such as Mayor´s Offices, Universities, Autonomous Corporations, among

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Teléfono: +57-1-540-8317
info@econat.biz
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others, as well as the community, to work in an articulated manner in order to continue carrying out the relevant actions towards improving quality of life, and to bear in mind adaptation mechanisms for an appropriate climate change management in La Mojana.

b) The community to appropriate the knowledge acquires and to continue to carry out adaptation measures autonomously. If advisory, information, technical training and/or inputs are required, the community should be able to communicate with and receive support from public and/or private institutions to continue to implement these climate change risk and vulnerability reduction actions.

c) Periodical changes of administration in governor´s offices and mayor´s offices. If possible, they should not to disrupt this dynamics and give continuity to the programs, plans and policies that are the outcome of the project. It is clear that this last point does not depend on the project itself.

4.4.4 Environmental Risks to Sustainability

The social and environmental risk that could hinder the sustainability of the project is associated with the persistence of illegal mining activities that lead to mercury contamination in bodies of water and in the soil.

Another risk is the recurrence of extreme climate variability episodes before the adaptation measures have been consolidated.

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Teléfono: +57-1-540-8317
info@econat.biz
www.econat.biz

5 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

- The *"Climate Change Risk and Vulnerability Reduction in the region of the Momposina Trough – Colombia"* project has been formulated based on climate variability, regarding primarily flood events in its direct area of influence; however, the project formulation did not establish the structural design of community vegetable gardens, organic crops and agro-forestry -pastoral crops, nor did it establish the architectural and structural designs for adaptive infrastructure for flood events; therefore, the unit costs for each of the components are not defined, which would have allowed an appropriate execution of the expected indicators from the outset, especially for components 2 and 3. However, these were established properly during project implementation

- The formulation of the project was mainly based on flood conditions, and disregarded periods of drought which are also of great importance to address the vulnerability of the target population in La Mojana.

- The planned activities of component 1 have been carried out in nine (9) of the eleven (11) hydro climatologic stations, according to the parameters set forth in the formulation and development of the project, whereby an action mechanism to guarantee the operation and maintenance (sustainability) of hydro climatologic stations in the direct area of influence of the project once completed, is yet to be defined.

- The project has produced and has started to process climatological data to be used by the community (information bulletins), produced by IDEAM. Yet, it is necessary to continue working on the appropriation and use by the beneficiary community, by establishing participation mechanisms through education institutions present in the region, and also appropriation within the community (through the existing network of promoters), leading to an early warning system that can improve the quality of life and the social wellbeing in the direct area of influence.

- Since the second semester of 2016, the Humboldt Institute wetland ecosystem rehabilitation diagnosis and proposal have been available, as has the Adaptation Fund hydro climatologic data, to proceed to perform activities that will continue to restoring the wetlands in the long term. To carry out the pending activities in this component, the project deadline must be extended, where at least 21 months are required, that is until the late 2019, to set the foundations in the field that will enable achieving the expected project results in the middle and long term (700 restored wetland hectares).

- Activities directly related with component 3 can be divided into three big parts. The first one refers to agroecological initiatives, whose goals were reoriented and has been executed up to date in a moderately satisfactory manner. Family crops activities are apparent, they exceed the coverage of families originally proposed in the formulation, however in regard to agroecological

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Teléfono: +57-1-540-8317
info@econat.biz
www.econat.biz

initiatives, the natural handcrafted fibers issue and around 150 hectares of rice fields, whose execution is viable, are still to be executed.

The second part of the present component refers to the development of adaptive infrastructure and the third to agro-forestry-pastoral systems. Goals of the last two parts of component 3 have not been successfully executed, due to barriers such as land ownership. In terms of the first part, it was possible to change the activities of community crops to family crops. However, the third part has been more difficult, since it has been necessary to look for new zones where these agro-forestry-pastoral systems can take place and/or make arrangements between the community and big landowners to be able to work in their lands. In contrast, the second part of this component is waiting for the data of la Mojana region hydrologic model and for the population´s perception research outcomes and designs needed for the adaptive infrastructure. However, it has been pointed out that the budget allocated to successfully execute the adaptive infrastructure goals exceeded the initial budget.

- Component 4 has actively influenced the creation and approval of the Departmental Development Plans for Córdoba and Sucre, where the municipalities of San Marcos, San Benito Abad and Ayapel are located, in addition to Land-use Plans. Furthermore, there are the four-year plans of the Autonomous Regional Corporations of Valle del Sinú and Corpomojana, which will be valid until 2020. Despite the great efforts of the Ministry of the Environment and Sustainable Development to formulate public polices and to provide a global warming guideline, it is evident that the sustainability in the mid and large- term of these projects are influenced and contingent upon the governmental management of the region administration on duty. It affects the implemented actions during the project execution, which no longer depend on it, once it has been completed.

- The entire institutional arrangement of the project (Steering Committee, National Director, Technical Committee, Consultancy Committee and Project Coordination) is the instrument which enables performing activities that are harmonized and in line with the Implementation Mode Guidelines[6] (IMG), which is part of the management model of the UNDP in the country. Consequently, the institutional arrangement is praised by the MTR, given that this management model has enabled not just the efficient use of the economic resources of the project, but also decision-making based on high technical criteria, where decisions have been hard to make in the project because the schedule and the execution time have been sacrificed in order to follow through. The most relevant example are the results of the hydrodynamic studies for the region in component 1, which are studies of a high technical level for the country and especially for the region of La Mojana, but their results brought about an execution delay of almost three years.

[6] The National Implementation Modality (NIM) refers to the implemented association modality at the level of the government. It establishes the processes and procedures of the UNDP projects management, requirements or needed specific agreements. Taken from: United Nations Development Program. *Government National Project Implementation supported by the UNDP*: *guidelines and procedures* (2011)

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Teléfono: +57-1-540-8317
info@econat.biz
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- The project has carried out activities that encompass the social and economic inclusion of the beneficiary population, which can be seen in the activities of component 3, because these activities contribute to reducing Climate Change vulnerability, enhancing socio-environmental sustainability, and the completeness of each of the activities of the four components (1, 2, 3, and 4), favoring the achievement of expected results in the UNDAF assistance framework *(United Nations Development Assistance Framework in Colombia 2015-2019, 2015)*. In this regard, there is a majority participation of women in the different activities, which have been carried out under an alternative scheme to that established by the project, according to the following aspects:

    - Out of the 20 community vegetable gardens, suggested to be 2 hectares per municipality and adapted to flood conditions, the implemented model is for family vegetable gardens measuring a total of 35 square meters per vegetable garden, in which yucca, plantain, eggplant, yams, peppers, pimento and cucumber are planted, among other vegetables, according to the different types of seed that the project provides to beneficiaries or that they exchange among themselves. The technical team of the project states that some 1,300 vegetable gardens have been implemented in the different communities of the project, including some that were not initially planned. The participation of these communities was considered, given that they live in areas adjacent to the areas that were initially planned with similar vulnerability issues and unstatisfied basic needs.

    - On all 60 organic family crops, model that was implemented is the abovementioned family vegetable gardens, which are built upon organic preparations using inputs from the community itself.

    - The planting of 440 hectares of rice using native seeds has been implemented under of the providing native seeds, which have been recovered in the region. Regarding this indicator, its level of achievement could be said to be of a satisfactory level for a total of 325 hectares, planted from 25 kilograms of seeds that were delivered by the project to the 1,300 families, with which ¼ of a hectare, or *cuarterón* as it is known in the region, can be planted, yielding an average of 12 50-kilogram sacks for beneficiaries when harvested, which is used for self-consumption and new crops. The beneficiaries are mostly forced to plant their rice crops in share-farming, where the landowner provides a prepared field and the beneficiary manually works the crop, receiving only a 60% share of the crop. In the 2016 Annual Operational Plan, 863 resilient rice crop hectares are ready to be implemented by 1,300 families.

    - The project, differing from the initial proposal, delivered three (3) rice mills, one for each municipality, which were placed in strategic locations to provide greater coverage to the beneficiaries in neighboring communities. Beneficiaries claim they are satisfied with this type of support, showing a greater level of association concerning these types of infrastructure and equipment, which have been

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Teléfono: +57-1-540-8317
info@econat.biz
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appropriately handled.

- The project has delivered drinking-water purifying filters with a capacity of 16 liters/day and 1,000 liter plastic tanks for collecting rainwater to beneficiary families, which were not envisioned in the initial project proposal that is the subject matter of this review. These initiatives have created added value in the project, given that they not only contribute to improving the quality of life of beneficiaries, but they are also a climate change and climate variability adaptation measure, considering that the region of La Mojana is also vulnerable to drought. This need was identified in the Rural Participative Diagnosis that the UNDP technical team developed previous phase to the vulnerability analysis included in component 1 and endorsed in the minutes of the steering committee in June 2014.

- The artisanal natural fibers project is planned to take place for the benefit of the Zenú tribe indigenous community, at the Santo Domingo Chapter; nevertheless, the beneficiaries inquired showed no progress or knowledge of the matter. On the other hand, they were found difficulties to identify a community with the present productive vocation and achieve the initial formulated goals in the project during the execution of the project, since the project did not identify the communities with this type of productive vacation.

- In formulating component 2 project, the methodology for the recovery of 700 planned hectares, structural designs, and wetland system floristic and intervention arrangements were not established; which required an unforeseen timeframe for consultation, studies, design formulation and investment alternatives, which delayed the execution of the planned activities and the achievement of the expected results. Therefore, the proposed activities in this component are redirected based on the information of the hydrologic model of the Adaptation Fund and the rehabilitation proposal of wetland ecosystems of the Humboldt Institute to understand the forgoing. It was not only focused on hectares recovery in the region, but also on recovering the ecosystem services and their relation with the community, as well as the wild life part of this ecosystem. In order to accomplish that goal, it is necessary to extend the time (21 months), so the execution foundations of this component can be built as well as the sustainability projection in the mid and long term.

- Component 2, developed at 4.86%, is subject to the hydrological modeling results of the area of influence, where the Autonomous Regional Corporations of Valle del Sinú and San Jorge, and La Mojana can be important allies in the region to guarantee the sustainability and continuity of the activities that are set forth at the end of the project towards the wetland restorations.

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- Component 3 shows differences between the activities planned and their execution, which establish strengthening 32 Community Based Organizations – CBO, where, to this date, eight (8) have been duly formalized and the rest are in the process of formalization, according to the technical team of the project. Nevertheless, the work promoted in family units is noteworthy, largely headed by women, with activities aimed towards strengthening the food security schemes in the region, such as: family vegetable gardens and rice crops.

- The performance of component 3 shows changes when compared to what was established during the formulation of the project, the development of community crops to “land” family crops. Some of this “land” crops seen during the field visit were under the maximum quota of flood registered in 2010-2011. The technical team mentioned that the community had had a hard time trying to reach the indicated height, due to the effort and dedication required to maintain these types of crops. It is indeed an issue for the MTR that these applied crops can generate the expected outcomes and can be sustainable in the long term.

- Risk management does not mention the land-ownership and the general use given by landowners of (single crops and cattle ranching) to the land as a highly relevant obstacle, which directly impacts the beneficiary community, due to the fact that it does not possess significant areas to implement community-type infrastructure and/or the development of agro-forestry -pastoral systems.

- Component 4 has strategic allies in the region; namely, the Academic Institutions, the Autonomous Regional Corporations, the Risk Management Committees of the Departments of Córdoba and Sucre, the Municipal Mayor´s Offices of Ayapel, San Marcos and San Benito Abad, to continue giving support to Community-Based Organizations. These allies have included the guidelines for climate change adaptation in their development plans and programs approved in 2016, according to the goals set forth in the project.

- It is necessary to keep strengthening the social component inside the community to break the paradigm of receiving provisions and groceries as has happened in previous projects, since there are certain population centers claiming to receive economic benefits for the labor required in the different activities or otherwise receiving groceries to address the basic needs of their families, in compensation for the time they employ to meet the requirements of their participation in the project, which is not the purpose of the project. On the contrary, other part of the beneficiary community of the project claims to be satisfied with the training provided and with the community work initiatives that were proposed, such as: seedling recovery from natural regeneration, forest seeds, sustainable agroecological practices, building nurseries, planting and maintaining nurseries, among

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Teléfono: +57-1-540-8317
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others. Therefore, the MTR highlightes the current work performed with the communities in la Mojana region, where it has been aimed to provide technical assistance and tools, so the vulnerable population against the climate change can implement them in their daily activities.

- In conclusion, monitoring and follow-up were not considered to be important activities in this project, which can be seen in reviewing the budget allocations and the actual execution. Fortunately for the project, components 2 and 3, which gather the largest amount of actions and the results of which must be monitored according to adaptation results, begin their active execution stage as of the second semester of 2016. On the other hand, this review notes that the QOR and Risk reports, and the quarterly follow-up and monitoring results, are geared towards ensuring that all the activities, products and goals are carried out as per the logical framework matrix.

- The Steering Committee Minutes and the respective Operational Plans of the project show that the project planning adhered to achieving the goals established during the formulation thereof (logical framework). The documented delays in execution respond to external factors that have hampered the development of the project, which allows us to confirm that vulnerability and adaptation can have local conditions, but they are mediated by complex processes associated, in this case, with other national and regional instances.

5.2 Recommendations

5.2.1 Corrective Actions for the Design, Execution, Follow-up and Evaluation of the Project

- Extending the execution deadline for an additional 21 months, until late 2019 is recommended due to the fact that the pending hydro climatologic study, the wetland system rehabilitation studies, and the designs to build the adaptive infrastructure pilots all impacted the performance and the continuity of most activities of the components. This time extension will enable establishing a large part of the activities required to rehabilitate the wetlands ecosystem, due to the fact that the term established for this activity is beyond the current scope of the project, together with the consequent creation and strengthening of local capacities of both local actors and beneficiaries from the different communities.

- Similarly, considering this additional time, it is also recommended to redirect and/or readjust the goals of mainly components 2 and 3, which we suggest should be approached from a local to a national context (bottom up). The work and research performed in the first semester of 2016 is an example of the readjustment done in component 3 in order to present the prototypes of adaptive infrastructure, where initial

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Teléfono: +57-1-540-8317
info@econat.biz
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goals with palafitic designs were redirected. At the beginning of the project, it was possible to identify that the constructions of palafittes for other projects were not successful within the community. Thus, the 2016 research focused on the needs and perceptions of the community (local work) to reconsider the designs required to be part of the present component. In this context, the intention is to improve the planning and executing skills of local entities and social actors by considering the socio-environmental conflicts. (Land ownership and agricultural vocation of the beneficiaries).

- Also, establishing these components, follow-up mechanisms and evaluation continuously in the middle term to ensure their appropriate management and execution. In addition, seeking the support of institutions, environmental authorities and the local community to carry out the performance and monitoring of activities such as wetland rehabilitation and restoration (follow-up of the recovery of these systems) and developing adaptive infrastructure pilots (social acceptance assessment), among others.

- It is recommended that for the follow up and monitoring of the adaptation goals, the project be provided with qualified technical support, which provides a proposal easy to implement and be effective at the same time, so it may be immediately included. Follow-up and monitoring should also be across the project while the project activities are still being performed.

- Currently, the project is in a scenario to maximize the restoration activities in partnership with the Alexander von Humboldt Institute, through an ecological rehabilitation-oriented component. Early actions performed with the communities are restoration actions, which differ from a reforestation program per se, which lead to management and not maintenance. The management stage contemplated leveraging vegetable material in order to densify coverage at the different strata. The vegetable material planted so far are trees, bushes and palms with a diversity of species that are native to the region, which have been rescued and reproduced. Implementing the proposals of the Adaptation Fund is recommended, which are based on prioritization to naturally reestablish the hydric dynamics of the lagoon system and not building dikes, which is corroborated in the intervention model proposed by the Humboldt Institute to rehabilitate wetland ecosystems.

- The MTR recommends placing a particular emphasis on devising more detailed indicators that will enable following-up of the adaptation processes and measurements that have been proposed and executed in the project so far, using the different follow-up instruments being currently employed (PRODOC, Atlas and PPR). For example, adaptive capacity indicators that can reflect the adjustment capacity of La Mojana to potential threats.

- Ecosystem coverage, difference between the area occupied by the natural vegetation under study at two different times).

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info@econat.biz
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- Ecosystem integrity.
- Freshwater ecosystems that are crucial to the hydric supply.
- Amount of available water (ratio between water availability in the dry season and amount of available water).
- Water quality (ratio between water production impacted by human activity and amount of available water).

These indicators should show results on the effectiveness of the activities and measures proposed to reduce vulnerability in La Mojana; also, these results should help to redirect the processes and activities of the project in a way that is more continuous with the purpose of reaching the proposed objective. Some of these results may be:

- Socioeconomic condition sensitivity (share of the population under the municipal poverty index, disaggregated by municipality).
- Livelihood diversity (main productive structure: tourism, services, industry and agriculture).
- Health status (to be defined, including mortality, morbidity and historical record of diseases).
- Hydric stress from demand (ratio between amount of water available and presumptive demand of the population, industry and agriculture).
- Hydric stress from water quality impoverishment.
- Water quality risk index (human consumption, Ministry of Health).

5.2.2 Actions to continue or reinforce the Initial Benefits of the Project

- It is recommended to keep strengthening and training the community on the development of "land" family crops. Although elevated land beds was the selected system to execute crops, according to the cases reviewed in the field visit, some of these crops could be below the maximum flood level of the 2010-2011 period. The community expressed that it is a labor that demands a lot of effort and dedication; and when performing maintenance, it is difficult to achieve the indicated height. Thus, it is important to keep strengthening the actions to maintain the crops at the indicated height and promoting the ownership of the implemented techniques and other activities that they have been performing such as rescue, reproduction and conservation of native seeds.

- Strengthening the production, compilation and analysis of the information acquired from meteorological and hydro climatic stations is recommended in order to strengthen and consolidate the early warning system in the region of La Mojana, as well as the social appropriation of this information (environmental authorities, education institutions, the local community) to be implemented in decision-making and in managing the activities in the region.

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Teléfono: +57-1-540-8317
info@econat.biz
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- To achieve the goal of formalizing 25 CBOs and have them participate in climate risk management and adaptation planning, it is necessary to increase their number threefold, which is currently eight (8). Nevertheless, the MTR recommends verifying whether this indicator is truly reflecting adaptation achievements, or if it is just CBOs that are created due to the presence of the project but with no possibility of being projected into the future.

- From the hydro climatologic data produced and according to the reality of the area (flood and drought scenarios), reevaluating the viability of the activities for some component goals is recommended, in order to reinforce some of the benefits put forward in the project.

5.2.3 Proposals for Future Management

- In order to objectively measure the economic benefits derived from the "Resilient agroecological practices" component, we recommend establishing a baseline that will enable choosing activities on which the hypothesis of causality between activities of the productive components of the project and the expected results in terms of economic benefit indicators is established. In order to do so, we suggest using the "panel data" method, for example, considered to be the most appropriate for this case study. An example of the foregoing is the case of Paraguay; the determining factors were accurately quantified through the use of panel data.

- For a project of this magnitude, we recommend that future management should have sufficient preliminary information when formulating the project or estimating the time required in the project schedule to gather said information as a baseline, with the purpose of having the least negative impact on the activities. Moreover, we recommend considering both climate variability scenarios (drought and flooding), to project aspects such as: i) Technical and management capacity required to carry out each one of the components and ii) Sufficient economic resources to finance adaptive infrastructure building expenses (initially pilots), and also short. Middle and long term maintenance, follow-up and evaluation (results-oriented monitoring in terms of adaptation).

An example showing the absence of this initial information was seen in component 2, where the lack of wetland recovery information was not initially contemplated, which required extensive diagnosis analysis that would enable establishing the most appropriate mechanism for intervention, in addition to having barometry information to identify the areas where interventions would take place, which resulted in the implementation delays of the goals set out for early 2018 and their achievement in the timeframe that was originally established.

Another example was found in component 3, where adaptive infrastructure goals were established starting from the palafittes model, disregarding the social acceptance of the model as well as designs, materials and resources that are actually needed to implement adaptive infrastructure with bioclimatic characteristics that adjust to the region of La Mojana and its population.

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Teléfono: +57-1-540-8317
info@econat.biz
www.econat.biz

Dirección: *Calle 73 N° 7-50 / Ofi. 201*
Teléfono: *+57-1-540-8317*
info@econat.biz
www.econat.biz

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Teléfono: +57-1-540-8317
info@econat.biz
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7 ATTACHMENTS

7.1 MTR ToR (excluding ToR attachments)

PROJECT NO.	COL83662
PROJECT TITLE	Climate Change Risk and Vulnerability Reduction in the Region of the Momposina Trough - Colombia
CONSULTANCY / SERVICE TITLE	**Mid-term Review**
TYPE OF CONTRACT	Institutional Contract
TIME DEDICATED	Per product.
WORK HEADQUARTERS	Montería (with travel to San Marcos, San Benito Abad in Sucre and Ayapel, Córdoba)
CONTRACT TERM	8 weeks

1. Background.

A growing number of people and ecosystems are susceptible to the negative impacts of flooding in the Momposina Trough region caused by climate change. Although the region has experienced flooding in the past, the seriousness of recent ENOS (El Niño – Southern Oscillation) cycles in included a severe episode of La Niña, and the forecasted temperature increases and changes in rain patterns throughout the rest of the century will have a greater negative impact on the region. Therefore, the Government of Colombia (GoC) acknowledged the need to implement adaptation measures in order to reduce both climate change risks and vulnerability in the region of the Momposina Trough. Therefore, a comprehensive strategy was proposed to face climate change and the vulnerability in the region, which the country considers to be critical from and environmental perspective, and where the convergence and articulation of the efforts of the various sectors is required to develop climate change adaptation measures. This strategy is being executed in a highly vulnerable area in the southeastern sector of the Momposina Trough (in the municipalities of Ayapel, San Marcos and San Benito Abad), with an intention to replicate it in other places in the region. The strategy includes: a) strengthening the current hydro climatologic and environmental information system (HEIS), expanding a network that captures and analyzes information, ensuring the availability of information in the region with the purpose of strengthening local capacities and facilitating decision-making which includes climate change adaptation measures; b) recovering wetlands as functional systems as a measure to reduce flood risks; c) developing sustainable economic options for local communities in order to reduce their vulnerability to climate change impacts; and d) integrating climate risk management into the development planning strategies and land-use plans at a regional and local level. The purpose of the project is to reduce the vulnerability of communities and increase the resilience of ecosystems in the region, which face flood

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Teléfono: +57-1-540-8317
info@econat.biz
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and drought risks associated with climate change and climate variability. The project operates mainly in the municipalities of Ayapel, San Marcos and Sam Benito Abad.

2. Overall Objective:

To provide an independent analysis on the progress the project has made so far, and identify potential issues with the design of the project, assessing progress until achieving the objectives of the project. The MTR will review the first signs of success or failure of the project, and will identify the necessary changes that are due. The execution of the project will be measured based on the indicators established in the logical framework of the project (see Annex 1).

3. Specific Objectives:

- Identifying and documenting lessons learned (including lessons that could improve the design and/or implementation of other AF products supported by the UNDP-GEF),
- Making recommendations related to the specific actions that must be carried out to improve the project,
- Providing information based on credible, reliable and useful evidence for program and financial decision-making.

4. Consultancy Site:

The main office of the project is located in the city of Montería Córdoba, where the consultancy will mainly take place.

The evaluating team is expected to carry out a participatory and consultation approach to guarantee close collaboration between government counterparts, the UNDP country office, the project team, and the UNDP-AF Technical Advisor, based on the region and key actors. The review team must carry out field missions in the implementation area of the project, in the following communities:

Department	Municipality	Village / Township
Sucre	San Marcos	El Pital
		Las Flores
		Cuenca
		Pasifueres
	San Benito Abad	El Torno
		Tosnobán
		Las Chispa
		Chinchorro
Córdoba	Ayapel	Cecilia
		Sejeve
		Sincelejito

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Teléfono: +57-1-540-8317
info@econat.biz
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5. Scope:

The evaluating team will analyze the following three categories regarding the progress of the project. For each category, the evaluating team must assess the general progress using a 6 point grading scale described in Annex 3.

5.1 Progress towards Results: Project Design:

• Assessing the issue addressed by the project and the underlying assumptions. Assess the effect of any wrong assumption in the project and/or evaluate new assumptions.

• Assessing the relevance of the project strategy (and change theory), and whether or not it provides the most effective path towards achieving the expected results.

• Assessing how the project addresses the priorities of the country.

• Assessing the baseline information included in the results framework of the project and suggesting reviews if necessary.

Progress:

• Assessing the products and progress of the results achieved so far and how they contribute to the overall objective of the project.

• Examining whether the progress made so far has or may in the future catalyze beneficial effects for development (for example, generating revenue, empowering women and gender equality, netter governance, etc.) that could be included in the results framework of the project and monitored on an annual basis. Suggesting measures to improve the development impact of the project, including gender equality and empowering women.

• Examining whether the process made so far has or may in the future lead to potentially adverse social or environmental effects, and/or social risks/impacts that could threaten the sustainability of the project´s results. Are these risks being managed, mitigated, minimized or compensated? Suggesting mitigation measures if necessary.

• Assessing to what extent the implementation of the project has included relevant actors, and whether it has been able to create collaboration between the different partners; how the different needs between male and female actors have been considered. Identifying opportunities for stronger, substantial collaborations.

5. 2 Adaptive Management: Operational Planning:

a) Is the operational planning process based on results? If no, suggest ways to redirect the operational towards a results-based approach.

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Teléfono: +57-1-540-8317
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b) Examining the use of the project document and the logical results framework as a management tool, and evaluating changes that have happened since the beginning of the project. Ensuring that reviews comply with UNDP-AF requirements and assessing the impact of the approach reviewed on the management of the project.

Funding and Co-funding:

a) Considering the financial management of the project, specifically referring to the cost-effectiveness of interventions.

b) Evaluating changes in fund availability as a result of budget reviews, and the appropriateness and relevance of said reviews.

Monitoring System:

a) Assessing the monitoring tools currently used: do they provide the necessary information? To they involve key partners? Do they use existing information? Are they efficient? Are they cost-effective? Are additional tools needed?

b) Ensuring that the monitoring system, including performance indicators, follow the minimum UNDP-AF requirements. Developing SMART indicators if necessary.

c) Ensuring that a broad development of gender issues is being carried out, and that these are being monitored effectively. Developing and recommending SMART indicators, including gender-segregated indicators if necessary.

d) Examining the project monitoring financial management and the budget evaluation. Are there enough resources allocated to monitoring and evaluation – M&E? Are these resources allocated effectively?

e) Identifying the contribution of the project to the CPD and UNDAF and in which results.

Risk Management:

a) Validating whether the risks identified in the project document, PPRs and in the ATLAS Risk Management module are the most important, and whether the risk assessment was applied appropriately and is updated. If no, explain why. Paying particular attention to critical risks.

b) Describing any additional risks identified and suggesting grading and possible risk management strategies to be adopted.

Report:

a) Assessing how adaptive management changes have been reported by project management and shared with the Project committees.

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Teléfono: +57-1-540-8317
info@econat.biz
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b) Assessing how the lessons derived from the adaptive management process have been documented, shared with key partners, and internalized by the partners.

5. 3 Management Arrangements:

a) Assessing the overall effectiveness of the management of the project as described in the project document. Have changes been made? Have these changes been effective? Are the responsibilities and lines of reporting clear? Is decision-making transparent, and has it been carried out within the appropriate deadlines? Recommending areas of improvement.

b) Assessing the execution quality on the part of the implementing partners and recommending areas of improvement.

c) Assessing the quality of the support provided by the UNDP and recommending areas of improvement.

6. Activities:

The team will assess the relevant sources of information, such as the project document, reports including annual progress reports, AF monitoring tools, budget reviews, project files, national legal and strategy documents, and any other material that the team considers useful for this evidence-based review.

Annex 2 of these ToR provides a list of documents that the project team and the country office will provide to the evaluating team to be reviewed.

As a minimum, interviews will be held with the following organizations and individuals:

1. UNDP personnel with responsibilities in the project
2. Executing agencies
3. Project Director
4. Members of the project´s Steering Committee
5. Members of the Technical Committee
6. Executing partners
7. Local authorities
8. Members of participating communities in the project
9. Other project actors to be established in an initial meeting, including academia and Cabos Community-Based Organizations. The team will evaluate the relevant sources of information, such as the project document, reports – including annual progress reports, AF monitoring tools, budget reviews, project files, national legal and strategy documents, and any other material that the team considers to be useful for this evidence-based review. Annex 2 of these ToR provides a list of documents that the project team and the country office will provide to the evaluating team to be reviewed.

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Teléfono: +57-1-540-8317
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7. Minimum Experience required from the Firm.

Specific experience in the following area(s)	Compliance with Experience by the firm [*sic*]
• Recent experience with the results-based methodology; • Experience applying SMART indicators and reconstructing or validating baseline scenarios; • Experience with climate change adaptive management, applied to conservation or natural resources management; • Experience in project assessment or review • Experience working in the region of [*sic*]	Submittal of certificates of contracts performed in satisfactory manner involving the items described in the specific experience required during the last 5 years.

8. Logistics and Administrative Aspects of the Consultancy/Service

The contractor must travel to the area and to the interviews held with actors involved in the project by its own means. The project team will provide contact information to conduct the interviews.

9. Required Work Team

POSITION	ACADEMIC BACKGROUND*	SPECIFIC EXPERIENCE IN
Main Evaluator	• University degree in social, economic and/or environmental sciences • Master´s Degree in social, sciences, development, communications, development cooperation, economics or related fields.	• Five years of experience in social project or development cooperation research or evaluation

Dirección: Calle 73 N° 7-50 / Ofi. 201
Teléfono: +57-1-540-8317
info@econat.biz
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POSITION	ACADEMIC BACKGROUND*	SPECIFIC EXPERIENCE IN
Junior Evaluator	• University degree in social, economic or agricultural sciences	• At least 3 years of experience in projects with vulnerable communities

* The required copies of professional diplomas and specific experience certifications must be attached for each professional.

Applicants must attach the letter of commitment, duly signed by the proposed professional.

10. Expected Products

- **Document explaining the methodology and the tools to be used in the evaluation and submittal gathering the initial findings on lessons learned and recommendations for the implementation of the second stage of the project.**
- **Final report draft document with its corresponding annexes.**
- **Final report document on the review results.**

11. Product Delivery Schedule

Products/Weeks	1	2	3	4	5	6	7	8
Document explaining the methodology to be used in the evaluation and submittal gathering the initial findings on lessons learned and recommendations for the implementation of the second stage of the project.								
Final report draft document with its corresponding annexes.								
Final report document on the review results.								

12. Method of Payment:

Payments require the prior acceptance of the contract supervisor

First payment of 20% upon delivery of product ONE
Second payment of 30% upon delivery of product TWO
Third payment of 50% upon delivery of product THREE

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info@econat.biz
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13. Supervision

The project coordinator will supervise the contract.

14. ToR Annexes

Annex 1 Logical Framework

Annex 2: Documents List

SUGGESTED BID SUBMITTAL

a) The technical and financial bids must be prepared and submitted in indelible ink, paged (pages numbered consecutively), in file form (organized in a file) and must include the corresponding index. The authorized representative of the bidder must enter his/her initials in every page of the bid. Bids must not contain writing between lines or on the text itself, except when necessary to correct mistakes made by the bidder; these corrections must be confirmed with the initials of the individual or individuals signing the bid.

b) Both the technical and financial bides must be submitted in printed form, in one (1) original and one (1) copy. The original bid and the copy of the technical bid must be submitted in a sealed envelope, clearly marked and **Technical Bid**, indicating the process number and the name of the bidder. The original financial bid and its copy must also be in a sealed envelope, clearly marked as **Financial Bid**, indicating the process number and the name of the bidder, with the following warning: **DO NOT OPEN AT THE SAME TIME AS THE TECHNICAL BID.**

If there should be any discrepancies between the original bid and the copy, the original shall prevail.

c) The bid must be delivered at the address and on the date set forth in the Data Sheet.
Bids will not be received after the submittal deadline. If these are received after the submittal deadline for any reason, these will be returned to the bidder unopened.

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Teléfono: +57-1-540-8317
info@econat.biz
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7.2 MTR Evaluation Matrix

Project Objective	Indicator	Baseline	Project Goals	Verification Mechanisms	Risks and Assumptions
To reduce the vulnerability of communities and ecosystems to flood and drought risks associated with climate change and variability in the region of the Momposina Trough.	Number of low-income households in the three municipalities of the project area that are vulnerable to climate-related events that have been beneficiaries of the project, disaggregated by the gender of the head of household.	La Mojana was seriously affected by La Niña during 2010-2011. Around 211,857 people (43.4% of the total population) were flood victims in 2010. The three municipalities included have a UBN index of 62.25%, which is well above the national mean average of 27.27%, which indicates high levels of poverty and low access to education, housing, basic healthcare and sanitation and sewage systems.	By the end of the project, at least 54,000 people in the most vulnerable conditions (10.800 families) from the municipalities of Ayapel, San Marcos and San Benito Abad in the region of the Momposina Trough, with a surface area of 406.054 hectares, will benefit from the solutions proposed by the project.	- Surveys - Vulnerability and risk assessment	- Decision-makers at all levels are willing to incorporate climate change considerations in planning and scheduling in a timely manner. - The availability of climate information and the agroecological models encourage the local communities to adopt adaptation measures. - The communities remain in the territory.
Result 1: The Enhanced Environmental Information System – EIS strengthens local capacities and facilitates decision-making regarding climate change adaptation.	Number of hydro climatologic stations in La Mojana that provide climate data reports as part of the national network	- The project area has: a) two automated flow stations connected to the IDEAM warning system (on the Cauca river near the project area), b) five (5) rainfall measuring stations c) two (2) climatological stations, d) one (1) station to measure the water level of the San Marcos lagoon and wetlands complex, and e) one (1) station to measure the water level of the Ayapel lagoon and wetlands complex.		Number of hydro climatologic stations in La Mojana that provide climate information as part of the national network.	-- The project area has: a) two automated flow stations connected to the IDEAM warning system (on the Cauca river near the project area), b) five (5) rainfall measuring stations c) two (2) climatological stations, d) one (1) station to measure the water level of the

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	Number of institutions and regional and local actors that have access to climate-related information and who use this information in their work	- There is only one national tool to assess climate change effects.	By the end of the project, at a local and regional level, direct access to climate-change-related information will have increased in the three municipalities chosen, as follows: a) three offices of the mayor (Ayapel, Sam Marcos and San Benito Abad), b) three Risk Management Municipal Councils, c) two Risk Management Departmental Councils, d) two CARs (CVS and CORPOMOJANA), and e) eleven community-based organizations.	- Local surveys	San Marcos lagoon and wetlands complex, and e) one (1) station to measure the water level of the Ayapel lagoon and wetlands complex.
	Number of rural communities and institutions in the area of coverage benefitting from an early warning system that reduces risks from extreme climate events.	There is no early warning system in the project area, the only ones available are in the Cauca river, and those published by IDEAM through periodical bulletins. - Daily Bulletins published by the Valle del Sinú Corporation (CVS by its Spanish acronym) based on IDEAM reports.	After five years, 100% of rural communities (6440 women and 6860 men), and local and regional institutions in the area would benefit from an early warning system.	- Early warning reports - Surveys - Project reports: annual and mid-term reports, and mid-term and final reviews.	
Result 2: The regulation and buffering capacity of wetlands has been recovered by giving multiple uses to the landscape, thus reducing the climate change impact vulnerability of local communities	Percentage of households in La Mojana that benefit from flood-control infrastructure, disaggregated by the gender of the head of household	Provisional flood-control work in the area of Sejeve and 146 families affected in 2010, in the villages of Sincelejito, Cecilia and Sejeve (municipality of Ayapel) - Zero (0) infrastructure and 500 families affected in 2010, in the townships of El Pital, Cuenca and Las Flores (municipality of San Marcos) - Zero (0) infrastructure and 138 families affected	By the end of the project, at least 50% of the families from the three municipalities chosen should benefit from flood-control infrastructure, as follows: 2. At least 50% of families (656 men and 712 women) in the	- Field surveys and reports - Project assessments: annual and mid-term reports, and mid-term and final reviews.	Local and regional planners, landowners, agricultural workers and local communities understood the value of combining conventional flood control systems and traditional systems to reduce risk. - Joint work of

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		in 2010 in the villages of Las Chispas, Pasifuere, Tosnobán, Chinchorro and El Torno (municipality of San Benito Abad). Note: The baseline numbers of the project do not change, but it is hereby clarified that they have been updated for 2012.	villages of Sincelejito , Cecilia and Sejeve (Municipality of Ayapel). 3. At least 50% of families (746 men and 808 women) in the townships of El Pital, Cuenca, Las Flores and el Torno (Municipality of San Marcos) At least 50% of families (3,534 women and 3,820 men) in villages of Las Chispas, Pasifuere, Tosnobán and Chinchorro (Municipality of San Benito Abad)		environmental authorities and local communities to incorporate ecosystem conservation measures and risk reduction strategies.
	Surface (in hectares) of rehabilitated wetlands that contribute to reducing climate change vulnerability.	- 250 reforested areas with Acacia Magnum in 2004 throughout La Quebradona creek in the lagoon and wetland complex of Ayapel (municipality of Ayapel). - 120 hectares reforested in 2004 with oak trees throughout the Muñoz, San Mateo and Trejos creeks (municipality of san Marcos; most trees were lost due to floods in 2005). No hectares have been rehabilitated in the municipality of San Benito Abad.	At least 700 hectares of the tributary system of the three main lagoons / wetland complexes were rehabilitated, as follows: 550 rehabilitated hectares of the Ayapel Lagoon / Quebradona (La Escobilla) wetland complex affluent system. 75 rehabilitated hectares of the San Benito Abad	- Rehabilitation plans - Field surveys - Project reports: annual and mid-term reports, and mid-term and final reviews.	

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			(Grande and Corozal creeks) wetlands affluent system. 75 rehabilitated hectares of San Marcos wetlands affluent system/ wetlands complex (western side of san Jorge river throughout Santiago and Canoas streams)		
Result 3: Introduction of agroecological practices that are resilient to climate change and construction design to help local communities reduce their vulnerability to climate change impacts	Number of local agroecological climate-change-resilient initiatives that adopted by communities (disaggregated by gender) in the target area of the project.	The following are taking place in the Ayapel area: a) nine tests with vegetable gardens built on pilots (locally known as "trojas") covering 0.86 hectares and benefiting 178 families. In the area of San Marcos and San Benito, the following has been carried out: a) productive corrals with 12 community organizations, and b) 80 organic crops in the river fords, covering 20 hectares.	By the end of the project, at least six (6) agroecological initiatives have been implemented in the municipalities, as follows: Twenty (20) vegetable gardens have been built on pilots to grow vegetables and tubers (for example, onion, lettuce, yam, pumpkin and tomato), covering two (2) hectares in the municipalities of the project, benefiting 415 families (996 women and 1,079 men). Sixty (60) fast-growing family organic crops and various vegetables, tubers and fruits (i.e., beans, yucca, corn, yam, pumpkin, watermelon and	- Field surveys and inventories - Field reports - Monitoring databases - Technical reports on the project	Agroecological and housing adaptation models have proven to be beneficial for local agricultural workers. - There is a good understanding among local actors about access and use of land, and natural resources in the project area

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			melon) (2 ha/family), located on two parcels of held by the community in the river fords of the project municipalities. 440 hectares of native rice crops (resistant to wet conditions, low-cost and free of agrochemicals) in three municipalities of the project area, benefiting 2,640 families (6,340 women and 6,860 men). An artisanal fiber production program that benefits 120 women from the three municipalities.		
	Number of structural architectural adaptation measures carried out in the area to reduce flood vulnerability.	10 school units built on pilots in the communities - 10 education units built on pilots in the communities of Cecilia (3), el Totumo (4), El Cuchillo (1) and La Coquera (2) (municipality of Ayapel), with support from the Ministry of Education. - Proposal to build 8 classrooms in the municipality of Ayapel. - There are no adaptation housing units in the municipalities of Ayapel, san Marcos and San Benito Abad, although some designs have been made	- 10 education units built on pilots in the communities of Cecilia (3), el Totumo (4), El Cuchillo (1) and La Coquera (2) (municipality of Ayapel), with support from the Ministry of Education. - Proposal to build 8 classrooms in the municipality of Ayapel. - There are no adaptation housing units in the municipalities of Ayapel, san Marcos and San Benito Abad, although some designs have been made. By the end of the project, structural measures have been implemented in at least seventy schools and homes, as follows:	- Architectural designs and floor plans - Local surveys - Field reports - Project reports: annual and bi-annual reports, and mid-term and final reviews.	

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			Ten (10) additional education units built on pilots or of a floating type to adapt to flooding in the municipalities of Ayapel, Sand Marcos and San Benito Abad, benefiting 350 students (170 girls and 180 boys). Sixty (60) existing houses were adapted to reduce the flooding effect risks in rural populations (60 women, 60 men, 115 girls and 125 boys) in the municipalities of Ayapel, San Marcos and San Benito Abad, benefiting approximately 300 people. Three (3) communal buildings and models of houses built on pilots or of a floating type to tackle flood risks (one per municipality).		
	Number of hectares with agro-silvo-pastoral systems established in the area of coverage of the project	- 50.7 hectares have been established in agro-silvo-pastoral systems for three users in the Ayapel municipality rural area. - Zero (0) hectares in the municipalities of San Marcos and San Benito Abad.	- An additional area of 250 hectares established with the afro-forest-pastoral system in the rural area of the project coverage (100 hectares in the municipality of Ayapel, 75 hectares in the municipality of San Marcos and 75 hectares in the municipality of San Benito Abad).	- Field reports and verifications -Project reports: annual and mid-term reports, and mid-term and final reviews	
Result 4: The capacity of institutions and organizations to implement climate	Number of public bodies and community organizations that jointly participate in climate-risk	Autonomous Regional Corporations – CARs – CVS and CORPOMOJANA have Regional Environmental Management Plans (PRGA	- 25 CBOs, including an women´s artisanal knitting association, and community leaders from 3 municipalities (10 in	- Minutes of meetings - Agreements between bodies and community-	The actors successfully established cooperation and joint task

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change adaptation measures has been strengthened at a national, regional and local level, with the purpose of replicating activities and lessons learned	management and adaptation planning	by its Spanish acronym) and Four-year Action Plans (PAC by their Spanish acronym) to address climate change issues, but these do not include strategies to reduce vulnerability or adaptation considerations. -The departmental Development Plans (DDP) for Córdoba and Sucre include strategic solutions for disaster risk and prevention, but these do not refer to climate change and adaptation. - The three municipalities have Land-use Plans (LUP) and Municipal Development Plans (MDP) which include strategic guidelines for risk management and disaster prevention, but there is only one general mention of climate change and its effects (flooding, landslides, and avalanches).	Ayapel, 12 in san Marcos and 3 in San Benito Abad, out of which at least 3 are women) are strengthened and promote adaptation skills, and their communities articulate with local, regional and national public bodies. - Nine (9) public institutions are strengthened and promote measures for climate adaptation in the area of coverage, and articulate with community organizations.	based organizations - Project reports: annual and mid-term reports, and mid-term and final reviews.	mechanisms. - There is a will on the part of decision-makers to incorporate adaptation considerations in planning mechanisms. - Institutions and individuals recognize the value of training and learning new skills. - Lessons learned are identified and analyzed in a timely manner, fostering an effective exchange of knowledge.
	Number of local and regional plans that integrate climate change adaptation considerations.	There are seven civil organizations (AGROPISCA, ASOPECE, ASODEPACA, ASOPESIN, ASOARGOLLERAS, ASONEGRITOS and ASOPESPAL) in the municipality of Ayapel; nevertheless, they are currently not addressing climate change. - There are eight civil organization (FIDES, AGROMOJANA, COOAGRISANMARCOS, Women´s Committee, COPEVI, ACUASUCRE, Fishermen´s Association, and SEVIPESCA in the municipality of San Marcos; nevertheless, they	Twelve (12) plans that incorporate climate change adaptation considerations: a) two REMPs for the CARs; two PACs for the CARs; two DDPs for departmental governments; three municipal LUPs; and three municipal MDPs.	- Minutes of meetings of bids submitted by the agencies in charge of land-use instruments and planning. - Planning instruments publishing	

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		are currently not addressing climate change. - There are 38 civil organizations in the municipality of San Benito Abad, yet it is unknown how many are active. - There are 9 public agencies (MADS, IDEAM, CVS, CORPOMOJANA, the departmental governments of Córdoba and Sucre, and the Ayapel, San Marcos and San Benito Abad Mayor´s offices) who have climate change knowledge in the area of coverage, but they are currently not articulating with community organizations properly.			
	Government personnel (local, regional and national) and members of the community that effectively develop new techniques to reduce climate change risks (disaggregated by gender).	Basic emergency management courses for flood risks have been conducted in the communities of Cecilia, Sincelejito and Sejeve (municipality of Ayapel), Viloria (municipality of San Marcos) and Las Chispas (municipality of San Benito Abad) with the support of CARITAS – Germany, the Sucre and Montelibano diocese (Sucre) and the National Secretariat of the Pastoral Social. The community has basic knowledge of ecological rehabilitation and building houses and other constructions on pilots, but this has not been connected with lower climate risk and adaptation.	At least 50% of the population in 11 communities (including approximately 3170 women) in the project area; the three mayor´s offices, the three Risk Management Municipal Councils, the two CARs, and the two Risk Management Departmental Councils (Córdoba and Sucre) have an adequate knowledge of the climate change adaptation measures proposed in the project, Including the interpretation and use of hydro climatologic information, wetland rehabilitation and conservation, agroecological practices, adaptation architecture, and their role in adapting to climate change impacts.	- Training protocols -Course attendance lists and databases - Development evaluation report drafting capacity. - Project evaluation: annual and mid-term reports, and final reviews. - Proposals developed in the local environment to execute adaptation measures in the area of coverage.	

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	The lessons learned from La Mojana pilot activities were disseminated through the National Climate Change Portal (NCCP) and the Adaptation Learning Mechanism (ALM).	- Zero (0)	- At least ten (10) lessons learned for each project component, among which is one associated with gender, were disseminated through the NCCP. and the ALM	- The NCCP, the ALM pages and the electronic records. - Number of website visits. - Active links and comments about the project within the NCCP.	

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7.3 Questionnaire Model or Interview Guide to be employed in Data Gathering

Workshop Content and Survey Topics

Project Objectives						
To reduce the vulnerability of communities and ecosystems in the region of the Momposina Trough to flood and drought risks associated with climate change and climate variability.						
Indicator						
Number of low income homes in the three municipalities in the project area that are vulnerable to climate-related events benefiting from the project, disaggregated by head of household gender.						
Result 1:						
The enhanced Environmental Information System – EIS strengthens local capacity and facilitates climate change adaptation decision-making.						
Question 1.						
How many hydro climatologic stations have been installed and are operating and at the service of the beneficiary community?						
0	1	3	5	7	9	11
Participant Observations:						
Question 2.						
Which institutions and local and regional actors have access to climate change information and integrate it into their work?						
Governor´s Office	Mayor´s Office	JAC	CAR	University	High School	School
Participant Observations:						
Question 3.						

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Which rural communities and local institutions in the area of coverage benefit from an early warning system that reduces extreme climate risks?						
Township	Village	Mayor´s Office	Region	CAR	University	None
Participant Observations:						

Result 2:
The regulation and buffering capacity of wetlands have been restored by a varied use of the landscape, reducing the vulnerability of local communities to climate change impacts.

Question 4.						
Does the flood-control infrastructure benefit homes in La Mojana?						
		YES	NO	SOME		
Participant Observations:						

Question 5.						
How many hectares of rehabilitated wetlands help reduce climate change vulnerability?						
01 - 50	51 - 100	101 - 150	151 - 200	201 - 250	251 - 300	Over 300
Participant Observations:						

Result 3:
Introducing agroecological practices that are resilient to climate change and construction design help local communities reduce their vulnerability to climate change impacts.

Question 6.

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How many local climate change-resilient initiatives have been adapted by the communities in the target area of the project?						
		01 - 100	101 - 200	201 - 300	Over 300	
Participant Observations:						

Question 7.						
Have architectural adaptation structural measures been carried out in the target areas of the project?						
			YES	NO		
Participant Observations:						

Question 8.						
How many agro-forestry-pastoral hectares have been established in the area of coverage of the project?						
01 - 50	51 - 100	101 - 150	151 - 200	201 - 250	251 - 300	Over 300
Participant Observations:						

Result 4:						
The capacity to implement climate change adaptation measures at national, regional and local institutions and organizations has been strengthened in such a way that the activities and lessons learned can be replicated.						

Question 9.						
Do public bodies and community organizations jointly participate in climate risk management and adaptation planning?						
			YES	NO		
Participant Observations:						

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Question 10.			
Have local and regional plans that integrate considerations to adapt to climate change been developed?			
	YES	NO	
Participant Observations:			

Question 11.						
Is there evidence of government personnel (local, regional and national) and members of the community carrying out new climate change risk reduction techniques?						
		YES	NO			
Participant Observations:						

Question 12.			
Have the lessons learned in the pilot activities in La Mojana been disseminated through the National Climate Change Portal (NCCP) and the Adaptation Learning Mechanism (ALM)?			
	YES	NO	
Participant Observations:			

Question 13.			
Which is the predominant gender participating in and executing development initiatives?			
	MALE	FEMALE	
Participant Observations:			

Source: EcoNat Ltda. Consultancy Team

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7.4 MTR Mission Itinerary

La Mojana project Field Visits					
	Tuesday	**Wednesday**	**Thursday**	**Friday**	**Saturday**
	09-Aug	**10-Aug**	**11-Aug**	**12-Aug**	**13-Aug**
6:00		Travel from Montería to san Benito Abad communities	Field visit to the El Torno Community	Visit to Ayapel and San Benito Abad - Montería* Mayor´s Offices. Visit to Ayapel communities*	Day available for contingencies.
7:00					
8:45	Meeting with UND team, territory team and territory coordinator				
9:00					
10:00		Workshop with the communities of San Benito Abad (Chispas, Pasifueres, Chinchorro and Tosnobán) (Max. 15 community leaders)			
11:00	Meeting with CVS		Return to Pital - Lunch		
12:00					
13:00	Lunch	Travel to the municipal township of San Marcos - Lunch	Workshop with San Marcos communities (Max. 15 community leaders)		
14:00	Governorship of Córdoba* Governorship of Sucre Meeting with Universities from Córdoba and Pontifical Dioceses of Sincelejo SEPAS – Diakonía de la Paz	Meeting with Mayor´s Office of San Marcos and Corpomojana			
15:00					
16:00					
17:00					
18:00			Departure from San		

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7.5 List of Individuals Interviewed

	Institution	Name
Steering Committee	MADS	Rodrigo Suárez
	DNP	Diego Rubio
	FA	Aníbal Pérez
Technical Committee	IAvH	Wilson Ramírez
		Úrsula Jaramillo
Consultancy Committee	CVS – Ayapel	Marinella Vargas
	Corpomojana	Liliana Quiroz Aguas
		Alcides Uparela Ortega
	Universidad de Córdoba	José Marruyo
	Universidad Pontificia Bolivariana, Montería Campus	Yhonattan Méndez
	Ayapel Major's Office	Jairo Llanos Pérez
	Community	Chinchorro, Pasifueres, Las Chispas, Tosnovan, El Torno, Las Flores, Cuenca, Cecilia, Seheve, Sincelejito
	Governorship of Sucre	Raúl Carriasco
	SAHED	Jorge Edwin Cárdenas
	Sincelejo dioceses SEPAS-Diakonía de la Paz	Víctor Rivero Hernández

7.5.1 Record of Individuals and Community Leaders interviewed in the Field

Attached as PDF document.

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7.5.2 Photographic Record: MTR – Climate Change Adaptation Project

	
Workshop with the UNDP Technical Team at the Montería main office.	Rice mill in Las Chispas township.
	
Information billboard of the rice mill project, located in Las Chispas township.	Workshop with representatives of the San Benito Abad beneficiary communities.
	
Family vegetable garden located in Las Chispas township.	Flow-rate verification scope and early warning mechanism located in Las Chispas township.

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Forest nursery, product of the natural regeneration in the area, Las Chispas Township.	Existing housing model and rainwater collection system, Las Chispas township.
	
Project beneficiary selecting rice for self-consumption	Water filter, with a capacity of 16 liters/day.
	
Rainwater collection system, Las Chispas Township.	Forest Nursery, a product of the natural regeneration in the area, El Torno township, municipality of San Marcos

7.6 List of Documents Reviewed

1 Quarterly Report COL83662 Mojana September-December, 2015
2 Quarterly Report COL83662 Mojana July-September, 2015
3 Quarterly Report COL83662 Mojana January-March, 2015 Final
4 Quarterly Report COL83662 Mojana April-June, 2015
5 Project Management Report COL83662 2014
6 Auditing Report FINALR 2013
7 1 and 2 Project Performance Report (PPR) AF Colombia PIMS 4805_March 2013-March 2015
8 3 Project Performance Report (PPR) AF from March 22, 2015 until 30 March 30, 2016
9 Final Mojana Project Document UNDP MADSCOL83662-68537
10 QOR and Risk Report Spanish January March 2013
11 QOR and Risk Report Spanish January - March 2014
12 Quarterly Report COL83662 Mojana January- March 2106
13 QOR and Risk Report Spanish April-June 2013
14 QOR and Risk Report Spanish April -June 2014
15 QOR and Risk Report Spanish July-September 2013
16 QOR and Risk Report Spanish July -September 2014
17 QOR and Risk Report Spanish October - December 2013
18 QOR and Risk Report Spanish October -December 2014
19 Steering Committee Minutes No. 001.pdf
20 Steering Committee Minutes No 002.pdf
21 Steering Committee Minutes No.003.pdf
22 Steering Committee Minutes No. 005.pdf
23 Steering Committee Minutes No. 006.pdf
24 Alexander von Humboldt Biological Resources Research Institute. (2016). Wetland Ecosystem Rehabilitation Proposal to Mitigate Flood Risks in the Region of La Mojana. Bogotá D.C.
25 Adaptation Fund. (2016). Food Risk Reduction and Climate Change Adaptation Action Plan for La Mojana. Bogotá, D.C.:
Adaptation Fund. Ministry of Finance and Public Credit
26 Budget COL83662 2013 approved by the Steering Committee
27 UNDP, Adaptation Fund & Ministry of the Environment. Identification of women crafters.

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7.7 Auditing itinerary

Review dates	Report content	UNDP and MESD Jimena Puyana – Rodrigo Suárez comments	MESD Comments	UNPD-Panama/ Gabor Vereczi Comments	Consultant's response
2° report product 15/09/2016	Methodology	MTR methodology was not included in the document.			Integration of methodology in section 2.3. Scope and Methodology of MTR
	Assessment	Improve the criteria to establish the probability scores.			The following tables were included: 2. Summary of the assessments and achievements of the MTR. 10. MML, analysis of achievement probability. 11. MTR results, Project of adaptation to climate change for La Mojana.
	Component assessment	Components context development.			Section: *3 Description of the project and context* *4 Proven Facts*
2° report product 17/11/2016	summary the present report consolidate, the outcomes of an objective analysis regarding the scope and development of the project "Climate Change Risk and Vulnerability Reduction in the Momposina Trough Region in Colombia". The United Nations Development Program (UNDP) is in charge of its execution with the support and participation of		We request that in accordance with the project document, the participation of the national government entities is described by clarifying that the Ministry of Environment and Sustainable Development office is the leader of the project. Furthermore, the adaptation fund, the IHMES, the AvHI and the National Planning Department.		Section *3.1 Main stakeholders:* Summary list *Diagram 1. Organizational Chart of the project* Amendment: The implementation is carried out by the United Nations Development Program (UNDP) with the support, participation and direction of the Project Steering Committee, which is made up by: the Ministry of Environment and Sustainable Development (MADS),

Review dates	Report content	UNDP and MESD Jimena Puyana – Rodrigo Suárez comments	MESD Comments	UNPD -Panama/ Gabor Vereczi Comments	Consultant's response
	and Sustainable Development (MESD) and the National Adaptation Fund (AF) though the Mid Term Review (MTR)				the National Planning Department (DNP), the National Adaption Fund (FA) and the UNDP.
	Another aspect that impacts the beginning of the project correspond to the inter-administrative agreement execution between the National Planning Department (NPD), the Ministry of Environment and Sustainable Development (MESD), the National Adaptation Fund (AF), the Institute of Hydrology, Meteorology and Environmental Studies (IHMES), the Autonomous Regional Corporation of Rio Grande de la Magdalena (ARCMAGDALENA) (for 2013 and 2014), whose objective was to unify knowledge, efforts and resources aimed to perform a detailed technical exercise in regard the hydrologic performance in la Mojana region, mainly by validating the project hydrologic modeling until the		The Hydrodynamics modeling issue of la Mojana Region performed in accordance with Agreement 012 not only impacted the execution beginning of component 2 about Wetlands Ecosystems Restoration, but also in the planning and execution of the Adaptive Architecture Product (component 3) and the community early warning system (component 1). It means, that hydrodynamics modeling data, the definition of flooding risk scenarios and the risk analysis performed by the Adaptation Fund is crucial information to take decision regarding the implementation of mentioned actions.		The document indicates that conducting the hydrodynamic modeling held back most of the activities for all the components. It affected in a greater extent the execution of activities in components 2 and 3, since many of the activities to be carried out depended on this information. Section 4.1.2 Results framework / logical framework

Review dates	Report content	UNDP and MESD Jimena Puyana – Rodrigo Suárez	MESD Comments	UNPD -Panama/ Gabor Vereczi Comments	Consultant's response
	semester of 2016. Thus, it affects the execution of the established activities in component 2 in regard to its planning and execution.				
	The project components 1 and 4 deliver mayor progress in terms of budget execution in accordance to steering committee No 6 (MESD-UNDP, 2016). They are 49% and 41% respectively compared to the 6% of Wetlands Restoration component (component 2) and 25% to resilient agroecological practices (component 3)		The adaptive architecture activities which have not been implemented yet and take an important budget in component 3, are the reason why the execution percentage of this component is 25%. On the other hand, resilient agroecological practices are one of the aspects with the best execution progress and results.		The activities of components are explained further in sections 4.3.1 *Management mechanisms* and 4.3.3 *financing and co-financing.*
	Evaluate the effect of any wrong assumption made by the project and/or evaluate new assumptions. The project seeks the community and institutional association as crucial axis in order to achieve the results and sustainability in the mid and large term. However, it is evident that associative work has not had a real progress in		Rural association has been promoted within the communities, no between communities. The project has worked in strengthening that topic by supporting the formalization of 12 associations with to solve the food safety and income generation issue of the population.		Section 5 conclusions and recommendations 5.1 Conclusions Amendment: Component 3 has variations between the formulated activities and their execution. The activities established the strengthening of 32 Community-based Organizations – OBC, finding to this date eight (8) are duly formalized,

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	the communities, due to their geographic dispersion		One proof of that is APAPI (community from Pital), given its organizational skills, it has actively enrolled in activities promoted by the project, including the interaction with rural associations of other communities. Furthermore, an accomplishment to be highlighted in the MTR is the fact that more communities than those in the PRODOC have been enrolled. Currently, they have worked with 42 communities of the region, instead of the initial 11.		as manifested by the technical team of the project. Nonetheless, the work promoted by the family unit, in a large proportion by women, is highlighted with activities aimed at strengthening food security schemes in the region, such as family farms and rice crops. Although there was a variation to the initial proposal, the project, delivered three (3) rice mills, one per each municipality. They were placed in strategic places to provide greater coverage to the beneficiaries of the surrounding communities. The beneficiaries expressed satisfaction for this type of support. They showed a better level of association to this type of infrastructure and equipment, and they handle them appropriately.

	The social actors identified by the project formulation match with those identified in the field by the consulting team. It is important to mention the crucial participation of organizations and the support of Church		We request clarification in a footnote and a better description of what the role of the *Pastoral Social* Church Organization is in social care as an institution. Additionally, we request clarification whether this same mechanism was used to achieve the contact with the communities		*Section 3.1 Main stakeholders:* Summary list Amendment: *Social Pastoral* is also a relevant player for the implementation of the project. A local non-profit organization (Catholic Church)

Review dates	Report content	UNDP and MESD Jimena Puyana – Rodrigo Suárez	MESD Comments	UNPD -Panama/ Gabor Vereczi Comments	Consultant's response
	Organizations for social care from the beginning for a better approach to the communities.		given difficulties in public order and the presence of armed groups in the area.		that provides humanitarian assistance to communities affected by disasters. Due to the complex situation of public and social order in the region, *Social Pastoral* has been all along a strategic ally in the implementation of the different activities of the project because it is an actor already recognized in the region.
	Wetlands recovery actions have been implemented in 34 hectares through reforestation practices in different zones degraded by flooding. They represent 4.86% of the estimated amount for the corresponding intervention. In order to execute this product, the AF provided the hydrologic model and based on it, it was possible to establish an adequate rehabilitation of the ecosystems. That proposal was delivered in the second semester of 2016 by the Alexander von Humboldt Institute. According to the Proposal for the Rehabilitation of the wetland ecosystem in la Mojana region to mitigate the effects of floods It is required at least		It is worth mentioning two aspects: First, reforestation activities were carried out with the communities using the nurseries established by the project as a way to raise awareness and do some preparatory work with the community prior to the intervention of the Alexander von Humboldt Institute. This phase of social introduction to ecological restoration facilitated the implementation activities to be carried out by the IAVH. The reforestation programs are subject to the stages of planting and maintenance and we are working in a **restauration** scenario in partnership with the Humboldt Institute.		Section: *4.2 Progress in achievements* *4.2.1 Analysis of the progress in results* Amendment: There are some actions aimed at the recovery of wetlands by means of reforestation (component 2), ranging from natural regeneration in 34 hectares to the creation of banks of vegetal material managed by the communities. Even then, these actions are subject to the parameters established in the hydrological model and to the study of the rehabilitation of wetland ecosystem by Humboldt Institute.

Checking dates	Report content	UNDP commentaries and MESD Jimena Puyana	MESD Commentaries	UNPD commentaries- Panamá/ Gabor Vereczi	Consultant's response
	(82) eighty two months to perform the restauration activities for the specific type of ecosystem. It is important to mention that the reforestation programs are subject to planting and maintenance stages at least every six months for the first three years. Currently, It would not be possible with the present time frame of the project.		The reforestation stages imply operation instead of maintenance. The operation stage involves plant-material enhancement to improve coverage for different socioeconomic status. So far, planted plant material has been trees, bushes and palms trees of several species from the region which were reproduced and rescued.		
	Proposed Activities have not been developed for this product. However, the review of secondary information and interviews proved that in order to perform the project, it was necessary to wait for the hydrologic model information outcomes. On the other hand, information gathered by the professionals from *AGRA*		It is necessary to clarify why the hydrologic model is crucial to define the actions of adaptive architecture. It is fundamental to determine flood risk scenarios so they can be taken into consideration when designing houses, community centers and other possible places of development. It is also important that the MTR		Section *4.3 Execution of the Project and adaptive management* *4.3.1 Management mechanism* Additionally, there are adaptive infrastructure activities within each component. To the date of this evaluation, they had not been implemented due to the fact that

Checking dates	Report content	UNDP commentaries and MESD Jimena Puyana	MESD Commentaries	UNPD commentaries- Panamá/ Gabor Vereczi	Consultant's response
	to define (together with the population from townships such as: Tosnovan (Village San Benito Abad), El Torno (Village San Marcos) and Cecilia (Village Ayapel)) the parameters for the design of prototypes of three houses and three community centers.		consider this topic regarding the availability of resources to develop this product and achieve the goals of the logical framework. Considering the high vulnerability conditions of the population involved in the project and the infrastructure costs, it would not be possible to accomplish this goal. It is important to point out that regarding the issue of schools, they are going to be managed by the National Adaptation Fund since it is its duty is to rebuild the infrastructure damaged by the last "La Niña" phenomenon. This situation will help the project perform the construction of houses and community centers in accordance with the project framework. AGRA's consulting will generate a number of recommendations to include adaptation actions against climate change in the proposed educational infrastructure. The foresaid recommendations are expected to be shared with the Adaptation Fund and the Ministry of Education.		they had to await the hydro-climatologic information of La Mojana. However, a study was carried out with the participation and interaction of the communities of the project in order to define the parameters for the design of three prototypes of housing and three community centers. 4.2.2 *Remaining Barrier to the achievement of the project objectives.* Because La Mojana is a region that is relatively isolated from the economic centers of the country, the underestimation of costs becomes a barrier to the achievement of some goals. It is the case of the proposed adaptive infrastructure for both housing and institutional facilities. Given the experience of the project, it shows that the allocated budget is not enough to entirely achieve this goal, especially if it is taken into account that it is necessary to invest in bioclimatic designs that meet the requirements and expectations of the community.

Checking dates	Report content	UNDP commentaries and MESD Jimena Puyana	MESD Commentaries	UNPD commentaries- Panamá/ Gabor Vereczi	Consultant's response
	The hectares proposed haven't been developed for the development of resilient agro forestry- pastoral actions, since it was found that land ownership and the hydrologic model were not taken into consideration in the initial project formulation to develop this product. While waiting for the model and for the definition on how to intervene against land ownership, the program has performed some field training about seed collection, its nurseries planting and some trees planting in field. Additionally, possible zones to develop the agro forestry-pastoral systems have been identified based on the analysis of primary and secondary geographical information to early ecosystem restoration (Ministry of the Environment and Sustainable Development- MESD & United Nations Development Program- UNDP, 2016)		It is important to point out that in order to accomplish the goals set in the project and given the issue of land ownership, the project has expanded the coverage to more families with livestock and productive vocation lands. They are families who are also vulnerable to climate change. It will facilitate the implementation of agro forestry-pastoral actions.		Section 1.2 Summary of the Project Progress In response to the barriers that have emerged and with the firm intention of contributing to reduce the vulnerability of the population, the project makes amendments within the framework of an adaptive management, which was absent in the formulation. For example, intervening with activities oriented to drought scenarios. The installation of rainwater collectors and the placement of water filters are an immediate benefit to the population. Similarly, the installation of rice mills contributes to improving the conditions of the population, adding value to their crops, which means generation of income. (See 4.3.1 Management Mechanisms). Similarly, in the case of community vegetable gardens that have the access barrier of land ownership, the project decided to intervene with family vegetable gardens and extend the coverage significantly; incorporating equally vulnerable population of the area of influence of the project .

Checking dates	Report content	UNDP commentaries and MESD Jimena Puyana	MESD Commentaries	UNPD commentaries- Panamá/ Gabor Vereczi	Consultant's response
	10 educational units were proposed but none of them has been built by the project. The UNDP technical team expresses that a consulting firm is currently performing research studies in the zone to identify the design that better fits the constructions to adapt to climate change and flood. It is important to mention that there is a delay in executing this activity as to the date of this assessment, it has been four (4) years out of the five (5) year initially set for the project.		It is important for this MTR to mention the underestimation of financing costs regarding the actions of adaptive architecture included in the PRODOC in order to accomplish the goals set forth in the logical framework. In different meetings arranged by the steering committee, it was agreed that since The National Adaptation Fund is responsible for the reconstruction of the schools and due to the reduced availability of resources, the Adaptation Fund will perform this activity with its own resources and responsibility. Thus, the AP project will focus on the construction of houses and community centers.		4.2.2 *Remaining barriers to the achievement of the project objectives* Because La Mojana is a region that is relatively isolated from the economic centers of the country, the underestimation of costs becomes a barrier to the achievement of some goals. It is the case of the proposed adaptive infrastructure, both for housing and institutional facilities. Given the experience of the project, it shows that the allocated budget is not enough to entirely achieve this goal, especially if it is taken into account that it is necessary to invest in bioclimatic designs that meet the requirements and expectations of the community.
	Twenty (20) vegetable gardens built over piles to grow vegetables and tubers		This point does correspond to technical knowledge. Families have received all the technical assistance		Section: *4.2.1 Analysis of Progress in results*

Checking dates	Report content	UNDP commentaries and MESD Jimena Puyana	MESD Commentaries	UNPD commentaries- Panamá/ Gabor Vereczi	Consultant's response

	were replaced by 1300 family crops landed in 35 square meters. They have a special distribution which does not follow a technical model, but the empirical knowledge of the beneficiary population. However, such model does not guarantee sustainability in the midterm since the cultivated area is subject to intensive nutrient extraction. Thus, soil desertification will take place from the second or third harvesting cycle.		provided by the project and the team of professionals. Then, they have been able to carry out establishment and maintenance activities on the crops. The activities include soil management through compost, litterfall covering and crop residues. These practices improve the absorption of nutrients by means of the decomposition of the organic matter, the conservation of soil humidity and erosion control. There is evidence that the crops have been operational for 3 years and they have been an important source of food that contributes to food safety. Furthermore, the professional technical assistance and the permanent interaction with the communities highly value traditional knowledge as mechanisms to establish and maintain crops. Finally, it is important to mention that the purpose of the project is not to create eternal and indestructible crops. It is clear that they are rather transitory crops. The real adaptation value is to improve community skills so that they are able to replicate and maintain their crops in a way that they	NIT. 830.053.487 - 1	Amendment: Regarding component 3, its goal focuses on the development of agro-ecological practices in community gardens. However, faced with the problem of land ownership and the lack of an associative culture, the goal was somewhat reoriented towards the development of family vegetable gardens in response to providing food security to communities and being able to teach them to implement sustainable practices such as the use of biological preparations, composting, etc. Similarly, within the formulation that did not include drought scenarios, the project management was able to address this issue by providing rainwater supply systems and filters with activated carbon and sands to treat the water and meet the demands of water availability.

Checking dates	Report content	UNDP commentaries and MESD Jimena Puyana	MESD Commentaries	UNPD commentaries- Panamá/ Gabor Vereczi	Consultant's response
			can withstand floods and droughts.		
	The project has delivered to the beneficiary families filters to purify water with a capacity of 16l/day and plastic tanks of 1000 liters to collect rainwater. Although they were not included in the initial proposal of the project subject of evaluation, they are initiatives that contribute to improve the quality of life to the beneficiary families.		These initiatives not only contribute to improving the quality of life of the beneficiaries, but they are also a way to adapt to climate change and climate variability. The Mojana region is an area that is very vulnerable to droughts, which are stronger and more prolonged every time. Although some initiatives were not directly included in the project, they are actions that contribute to reducing the vulnerability of the population; and so this MTR should highlight such actions.		Section: *4.3.1 Management Mechanisms* It is important to highlight that within the adaptive management of the project, the identification of the effects of drought scenarios in the community related to water supply for human consumption was not considered in the formulation. The project reoriented the activity to provide the community with mechanisms for collection and basic treatment of rainwater. This was done by mean of tanks (capacity of 1000 liters) and activated carbon filters. This measure undoubtedly affects the quality of life of the population and reduces vulnerability and generates ownership of the project by the community. It also highlights the reorientation of the activity to provide to the community the productive infrastructure; and not only for food security

Checking dates	Report content	UNDP commentaries and MESD Jimena Puyana	MESD Commentaries	UNPD commentaries- Panamá/ Gabor Vereczi	Consultant's response
					but to generate income through the installation of three (3) rice mills and the construction of drying areas. This adds value to the harvested products and fosters the associativity among the community.
2° report product 5/01/2017	Document structure			The analysis and detailed presentation of the following is missing> -Project execution and adaptive management. -sustainability	Change in the infrastructure of the document is performed and the table of content guidelines is taken into account pursuant to mid-term review reference terms.
	Executive summary The season of extreme rain fall in 2010-2011 negatively affected the nation. It also caused a lot of economic losses. Therefore, the Colombian government was required to perform a series of activities and institutional changes, which delayed project implementation. For instance, the structure of the Ministry of Environment and Sustainable Development (Decree 3570, 2011 of the MEHTD), the national policy on disaster management (law 1523 of 2012) and the creation of the National Adaptation Fund			Specify what kind of delays and what part of the project.	Delays in the project are presented as follows: The project did not start properly in the second semester of 2012. Instead it started in March, 2013 Extensive project planning without considering short-term and detailed work plans. Waiting for hydrodynamic information for the definition of threatening flood scenarios and risk analysis; and the generation of base information to carry out some of the activities in the four components.

EcoNat

NIT. 830.053.487 - 1

Checking dates	Report content	UNDP commentaries and MESD Jimena Puyana	MESD Commentaries	UNPD commentaries- Panamá/ Gabor Vereczi	Consultant's response
	(decree-law 4819 of 2010) were changes that affected the beginning of the project and caused delays.				
	Executive summary			Include a summary table of the assessments and goals of the MTR according to the ToR	It is included within the executive summary of Table 2 Summary of assessments and achievements
	On the other hand, component 3 recognizes that responding to extreme poverty and inequality is urgent in terms of resilient ecological practices in the area of direct influence of the project. This component is considered crucial to generate income and for food-safety related issues. **It is important to highlight that the new developed activities** have been approved by the steering committee of the project. New elements have been included in order to respond to basic needs of the beneficiary population such as: filters to obtain potable water,			Specify the analysis used to make these modifications and what modifications they were. (i.e., was it based on the vulnerability studies carried out by the project?) What are these activities? How does the original design change? Please explain briefly.	Section: *1.2 Summary of the Project Progress* In response to the barriers that have emerged, and with the firm intention of contributing to reduce the vulnerability of the population, the project makes amendments within the framework of adaptive management that was absent in the formulation, for example, intervening with activities oriented to drought scenarios. The installation of rainwater collectors and the placement of water filters are an immediate benefit to the population. Similarly, the installation of rice mills contributes to improving the conditions of the population, adding value to their crops, which means generation of income. (See section 4.3.1 Management Mechanisms)

Checking dates	Report content	UNDP commentaries and MESD Jimena Puyana	MESD Commentaries	UNPD commentaries- Panamá/ Gabor Vereczi	Consultant's response
	mechanisms to collect rain water, implementation of organic family crops, procurement and distribution of seeds to grow rice with species from the zone. Such seeds had been partially lost during the flood period. Additionally, rice mills were established with the aim to build grain-drying areas for everyone (drying places and storage warehouses).				Similarly, in the case of community vegetable gardens with the access barrier of land ownership, the project decided to intervene with family vegetable gardens and extend the coverage significantly by incorporating equally vulnerable population in the area of influence of the project. *Section*: *4.2.2 Remaining barriers to the achievement of the project objectives*
	Activities of component 4 such as: nine (9) public institutions were strengthened and actions to adapt to climate change were promoted. 50% of the 11 communities have acceptable knowledge concerning climate change adaptation. At least ten (10) lessons were learned from each component of the project.			There are key products / outputs here. For example, planning support – DDPs, TOPs, MDPs, CAPs – please refer to the last PPR. Government trained personnel, as well.	Section: *4.3.1 Management Mechanisms* Regarding the training actions carried out in this component, the good acceptance it has had among the local actors allows us to recommend a strategy of continuous training in partnership with local universities. Just as it has been done with the different

Checking dates	Report content	UNDP commentaries and MESD Jimena Puyana	MESD Commentaries	UNPD commentaries- Panamá/ Gabor Vereczi	Consultant's response
	The lessons have been disclosed through the National Climate Change Portal (NCCP), which is related to gender and Adaptation Learning Mechanisms (ALM). This shows that it is possible to achieve the goals pursuant to project formulation.				issues put forward by the project and topics of interest suggested by the community. This strengthens and facilitates the appropriation processes. *4.4.3 Risks in sustainability related to the institutional framework and governance* Climate change issues have been successfully included and articulated within development plans at the regional, departmental and local levels. This contributes to strengthening institutions around this issue and provides continuity to the activities towards Risk Management of climate change. Section: 5.1 Conclusions Component 4 has actively influenced the formulation and approval of the Departmental Development Plans for Córdoba and Sucre, the municipalities, San Marcos, San Benito Abad and Ayapel, as well as their Territorial Developing Plans. Additionally, the four-year plans of the Regional Autonomous Corporations of

Checking dates	Report content	UNDP commentaries and MESD Jimena Puyana	MESD Commentaries	UNPD commentaries- Panamá/ Gabor Vereczi	Consultant's response
					Sinú and Corpomojana, effective until 2020.
	Midterm Assessment outcomes- MTR			Include the progress matrix in the achievement of results.	Adjustment made to table 10MML, analysis of achievement probability and section number: *4.2.1 Analysis of the progress in results*
	Component 3 shows variations in terms of the formulated activities and their actual execution. It was originally proposed to strengthen 25 Community-based Organizations- CBO. According to the project technical team, only 8 of them are duly formalized. However, the development of individual work has promoted activities aimed at strengthening food safety schemes in the region such as family crops and rice cultivation.			The PPR report also informs about the strengthening of 32 communities. Please refer to the complete goals per indicator.	It is clarified at this point that the project management has worked on strengthening the communities. However, the text needs to emphasize that out of the 32 Community-based Organizations working with the project at the time of the evaluation, eight are legally formalized. The remaining ones are in the process of legal formalization. This does not disregard the work done and their strengthening as organizations. Section: *5.1 Conclusions* Component 3 presents variations between the activities formulated and their execution. Activities establish the strengthening of 32 Community Based Organizations (CBOs). To this date, eight (8) of them are duly formalized

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					as stated by the technical team of the project. Nonetheless, one aspect to highlight is the work promoted by the family unit, in large proportion by women. There are activities aimed at strengthening food security schemes in the region such as family farms and rice crops.
	The assessment points out that QOR and risks; and the quarterly reports of monitoring intended to ensure that all activities, products and goals are performed in accordance with the logical framework matrix. Therefore, it is recommended to include indicators and assessment seeking to determine whether the results are being achieved in terms of adaptation.			I do not understand this recommendation. What indicators and assessments?	Section: *5.2.1 Corrective measures for the design, implementation, monitoring and evaluation of the project.* Amendment: The MTR recommends that special emphasis be given to the different monitoring instruments currently used (Prodoc, Atlas and PPR). This will help formulate more detailed indicators to follow up the adaptation processes and measures proposed and implemented by the project. For example: indicators of adaptive capacity that express the Mojana's ability to adjust to potential threats.

Checking dates	Report content	UNDP commentaries and MESD Jimena Puyana	MESD Commentaries	UNPD commentaries- Panamá/ Gabor Vereczi	Consultant's response
	The project is provided with technical information that relates to the quantitative and qualitative progress of its work plan. It includes the review of objectives and strategies; as well as the identification of lessons learned and/or better practices. It also reports on the program indicators. However, project activities have not been performed as planned, so it is recommended to work with process and result-based indicators.			It is not accurate. What indicators, which activity?	Section: *4.3 Project execution and adaptive management* *4.3.1 Management mechanisms* Finally, in terms of the overall project, it is noteworthy that due to the delay in the main investment components (2 and 3), the lack of a continuous system of monitoring and impact indicators to provide feedback to those responsible for the project management (Steering and Technical Committee) has not been significant. Now that these two components have entered into a high-execution phase, the MTR strongly recommends considering the appropriate budget allocation for this activity; as well as the extension of the proposed execution time. Section: *4.3.4 Follow-up and evaluation systems at the project level* It is also recommended to conduct an analysis of the monitoring priorities that allow evaluating and dimensioning

Checking dates	Report content	UNDP commentaries and MESD Jimena Puyana	MESD Commentaries	UNPD commentaries- Panamá/ Gabor Vereczi	Consultant's response
					the impacts of the activities carried out by the project within these three years, as well as issues associated to climate change. Putting this into place will allow the development of specific protocols for the SMART indicators and other environmental variables.