



Report

Final Project Evaluation

Risk and vulnerability reduction towards climate change in the Momposina Depression region in Colombia

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March 2020



Project title:

Risk and vulnerability reduction towards climate change in the Momposina Depression region in Colombia

Project identification number:

00083662

PMIS number:

4805

Evaluation period:

November 2019 – March 2020

Report delivered on:

March 13th, 2020

Country:

Colombia

Implementation partners and other partners

Ministerio de Ambiente y Desarrollo Sostenible (MADS)

Instituto de Hidrología, Meteorología y Estudios Ambientales (IDEAM)

Fondo Adaptación-Colombia (FA)

Departamento Nacional de Planeación (DNP)

Evaluation team members

Mr. Giacomo Morelli and Mrs. María Carolina Pinilla



Executive summary

- Short project description

The project objective was "to reduce the vulnerability of communities and ecosystems in the Momposina Depression region to the risks of floods and droughts associated with climate change and variability."

The project has four expected results:

Result 1 – The improved Environmental Information System (EIS) strengthens local capacity and facilitates decision-making related to climate change adaptation.

Result 2 – The capacity of regulation and damping of wetlands with multiple use of the landscape has been recovered, reducing the vulnerability of local communities to the impacts of climate change.

Result 3 - Strengthened local communities implement adaptation measures to improve their resilience to the impacts of climate change and improve their quality of life.

Result 4 – The capacity of institutions and organizations at the national, regional and local levels to implement programmed measures to adapt to climate change has been strengthened to replicate the activities and lessons learned.

- Evaluation rating matrix

Criterion	Rating	Justification
Relevance	Highly Relevant	<p>The relevance of the project to all stakeholders is strategic. The project took advantage of a favourable temporary situation that allowed an alignment of institutional interests among the different stakeholders that ultimately strengthened the implementation process.</p> <p>To the thematic, institutional and strategic relevance, the project also added a high degree of methodological relevance, thus guaranteeing a generalized active and factual involvement of all stakeholders, including communities.</p>
Effectiveness	Highly Satisfactory	<p>Result 1: Satisfactory The achievements have been consistent with the indicators with the exception of the Early Warning System, which still does not cover the 11 project communities. The project contributed, with the installation of hydro-climatological stations, to the increase of territorial coverage of the IDEAM network. In addition, within the framework of result 1, the Colombian Adaptation Fund developed the hydrodynamic modeling of La Mojana, which represented the first high-level technical and scientific exercise in Colombia.</p> <p>Result 2: Highly Satisfactory Target values were exceeded for each indicator.</p> <p>The rehabilitation of the prioritized <i>caños</i> represents one of the most strategic achievements at the field level, because based on the information obtained from hydrodynamic modeling, the rehabilitation interventions have made it possible to demonstrate that the La Mojana ecosystem works according to its own natural cycles of flood and drought, without this circumstance representing a threat to the populations settled in the territory.</p> <p>In terms of the area of wetland rehabilitation, the project achieved more than expected: 26% more of the estimated area was rehabilitated.</p> <p>Result 3: Highly Satisfactory The component of this result related to the remodelling and improvement of houses and educational centres, as well as the promotion of agro-ecological practices that are resilient to climate change (family gardens, transient crops, rice mills, fish pond, handicrafts with natural</p>



		<p>fibers and rice <i>criollo</i>) had significant achievements because targets were exceeded for each indicator.</p> <p>-The construction of community centres has lags in their achievements, because of problems of regional public order and difficulties in the processes of convocation, evaluation, selection and hiring of companies that offered financial and technical warranties to build community centres with a focus adapted to the climatic conditions. There were important delays in the beginning and development of the works. However, the centres will be built. The evaluation considers the achievement of this indicator satisfactory even though, at the time of the evaluation, the centres were not completed. It is clear that the problems of public order exceeded the capacities of control of the execution of the project by the UNDP and its partners. This component of the project was as well very well received and appreciated by all communities.</p> <p>Result 4: Highly Satisfactory Target values were exceeded for each indicator. It is highlighted that 42 communities have been reached instead of the 11 planned.</p>
Efficiency	Efficient	<p>The project was implemented efficiently thanks to its foundation in high-level technical-scientific knowledge generated by the project itself. The project governance model was highly participatory and transparent, which allowed an active involvement of all stakeholders. Finally, financial management and procurement processes applied complied with international standards.</p> <p>The project took advantage of the strategic contribution of the Adaptation Fund of Colombia to develop the hydrodynamic modeling of La Mojana, which was the technical-scientific platform to carry out the implementation of the project.</p>
Sustainability	Sustainable	<p>The generation of knowledge based on a technical-scientific approach represents the basic element of the project's sustainability. In fact, this allowed all the stakeholders to be able to understand with the best available information, the challenge that the project faced. Likewise, the theoretical methodological approach had a high level of innovation with respect to the traditional <i>caños</i> rehabilitation interventions that have been applied in La Mojana for many years.</p> <p>Recognizing communities as the engine of their own development and as agents of change through a better understanding of the challenges and opportunities that the ecosystem offers them, has proved to be a concept understood by all the stakeholders encountered during the evaluation mission. The adoption of this approach from the communities represents a key element of sustainability.</p> <p>The strengthening of the different institutions at the local level also represented an implementation and sustainability strategy. It is considered that this type of strategy was appropriate to ensure a higher level of sustainability among institutional actors in Colombia. It is not possible to assess whether this strategy is successful or not, since during the evaluation exercise, the Evaluation Team could not meet any representative of the municipalities involved in the project due to the transition of local government teams.</p>
Impact	Satisfactory	<p>The anecdotal evidence collected during the evaluation mission shows that there has been an increase in food security, a diversification of the diet, a greater capacity for savings (family gardens and riparian vegetation), an increase in the production of pastures and dairy production (agrosilvopastoral systems) and an increase in the fishing resource (rehabilitation of the <i>caños</i>). The project contributed to reduce the vulnerability of communities.</p>

- Summary of conclusions

C1: The high degree of relevance of the project for all the actors involved has been the necessary element so that the implementation achieved the expected results with a high level of sustainability. The project was also able to take advantage of a favourable situation because the different institutions at national level were looking for scenarios to implement actions to adapt to climate change. Such convergence of



intentions facilitated the articulation of a collective effort for the implementation of actions at different levels of management, from the national to the community level.

C2: The project was well designed. Only two design flaws were identified. It was found that the proposed indicator to measure the scope of the project objective is not SMART (English acronym Specific, Measurable, Attainable, Relevant, Time Bound). Its formulation only indicates poor households that benefited generically from the project. However, its formulation did not add any information to be included in the indicators at the result level. Nor was it specified how by being beneficiaries of the project, they were able to improve their living conditions and reduce their vulnerability to climate change. Another point identified was that the original design addressed only the flooding scenarios, however, throughout project implementation, the approach included the drought scenarios as well. As a result, the project changed in a very adaptive and flexible way its approach to interventions according to the climatic and hydrological dynamics of the region.

C3: The formation of the three project management committees (Steering, Technical and Consultative) ensured the high level of financial management efficiency and synergy of ideas.

C4: The implementation of the project has been effective, having achieved in a more than satisfactory way all the results, with the only exception of the EWS that has not yet reached all the communities.

C5: The high level of relevance of the project is the key element that rates the project as sustainable. To this element have been added others whose strategic horizon was sustainability in the medium and long term that go beyond the execution period, such as: i) the generation of knowledge based on a technical-scientific approach; ii) the generation of knowledge and capacity development among the beneficiary communities; iii) the involvement and strengthening of the different institutions at the local level. This strategy is considered appropriate to ensure a higher level of sustainability by all institutional stakeholders in Colombia; and iv) the changes in the structures of the national government and its institutions have been used by the project to adapt to the new national and regional political guidelines, represented by the National Plan for Adaptation to Climate Change and the competences of the Colombia Adaptation Fund .

C6: At the time of the evaluation of the project, there is no clear identification of the official long-term financing strategy of the Forecast Centre by IDEAM and CORPOMOJANA. However, the resources from the Environmental Compensation Fund and the GCF project are alternatives to ensure its operation in the short and medium term.

C7: A strengthening in the design and implementation of adaptation measures against the effects of climate change was demonstrated from a solid scientific, participatory and community base that integrated the environmental, social and cultural characteristics of La Mojana. The awareness of being able to live using sustainably local natural resources was developed in each community visited during the evaluation mission.



C8: The mechanism of the Grant scheme encouraged participation and ownership connecting communities to the project.

C9: Learning and experience gained during the project represent what is most valued by communities because they feel prepared to face a new contingency flood or drought, because they have relevant information, new knowledge, additional food sources and income.

C10: The project opened new spaces for participation and involvement for women. They have acted, naturally, with leadership scenarios and gradual changes in their ways of life that have allowed them to explore new ways of relating to their families, their territories, the family economy, their communities and other women with similar interests.

C11: It is noteworthy that the great reception of agrosilvopastoral systems by communities and regional institutions represents an opportunity to position the model of rehabilitation, restoration and ecosystem connectivity as an alternative intervention in the territory.

C12: The paradigm shift proposed by the project for the development of La Mojana has been accepted by all stakeholders of the national order met during the evaluation mission. However, the change does not register the same reception among all the actors of the regional governmental sphere. The conventional paradigm that has been applied for years in La Mojana continues to have adherents within regional corporations. However, professors from regional universities stands out as rigorous promoters of the development paradigm shift in La Mojana.

C13: The continuity of the project through the new project funded by the GCF is an opportunity for national institutions to position the discourse of adaptation to climate change within the framework of compliance with the agenda of the National System of Climate Change SISCLIMA and 2030. It is evident that after the project, the region has a scientifically sound baseline that provides guidelines for intervention strategies.

- Summary of recommendations

R1: PMU/GCF Project Steering Committee \Rightarrow to include members of regional universities in the Technical Committee of the project financed by the GFC to position the technical approach of the project as a model for reducing vulnerability to climate change (hydrodynamic model, regional eco planning and comprehensive restoration strategy, among others).

R2: MADS/FA/DNP/Regional Corporations \Rightarrow in relation to R1, the three national institutions and regional corporations, as national and regional leading institutions in environmental issues, could open spaces from the national and regional level to recognize and institutionalize this new approach to the development of “amphibious territories” in the region and in the country.

R3: PMU/Project Steering Committee/Technical Committee of the GCF project \Rightarrow to establish a transition plan to deliver formally the Forecast Centre to *CORPOMOJANA*. The plan should end in four years. Ensuring the financing of the Centre with funds from the GCF project will imply a delay in its inclusion within the institutional priorities of the Corporation and IDEAM.



R4: PMU/Project Steering Committee/Technical Committee of the GCF project ⇒ to continue with the joint and articulated work with the career professionals of the Corporations to allow the technical accompaniment processes that the project has fostered, to consolidate in the medium and long term beyond the changes of regional government.

R5: PMU/Project Steering Committee ⇒ check whether the financing schemes through the Grants, which are not directly possible according to the contractual rules (UNDP / GCF), can be replicated in another way (through cofinancing from other institution), to allow the members of the beneficiary communities to lead the project activities.

R6: PMU/Steering Committee of GCF project ⇒ promote an academic dialogue at regional and national level so that the information and knowledge generated by the project can be used, and thus enrich the conceptual, methodological and theoretical debate around the approach to adaptation to climate change with scientific dissertations.

R7: PMU/UNDP ⇒ develop a communication protocol between the different areas / components and consultants of the GCF project to be able to program more efficiently the specific studies and diagnoses that meet the requirements of all components, so that logistic efforts can be combined and not replicate actions.

R8: PMU/Steering Committee of GCF project ⇒ to continue with the participatory and technical monitoring of the restoration actions, so that the process trends can be established and the effectiveness, in terms of ecosystem resilience, in the medium and long term in terms.

R9: UNDP ⇒ keep the direct implementation scheme with technical personnel in the GCF project, since in this way the articulation between the different components, the transversal adoption of the intervention approach, and the permanent monitoring and follow-up of the processes that are developed in the communities, are ensured.

R10: PMU/Project Steering Committee/Technical Committee of the GCF ⇒ develop a large-scale communication strategy. With special reference to the bulletins of the Forecast Centre, it is a priority to take the information beyond the departmental and municipal Committees of risk management and the most vulnerable communities: there are other communities that can also take advantage of the information, as well as other stakeholders interested in the information generated for the region.

- Concise summary of lessons learned

LL1: Ecosystem and community-based adaptation is a gradual process that takes time to consolidate at the local level. Incorporating and adapting the interpretation of La Mojana as an “amphibious territory” took more time to establish intervention strategies, but ensured a differentiated implementation according to the particular conditions of the region and, consequently, a successful community appropriation, which is evidenced in the replication of experiences by other communities that were not involved in the process.



LL2: The comprehensive intervention approach, with new strategies to interpret the landscape, and technical, scientific and community approach, has marked a distance from traditional approaches to understand the “amphibious territories” of the country and specifically of the region, which were based on the paradigm of floods as a problem to be solved with containment infrastructures.

LL3: The respect of the roles of each institution involved in the implementation of the project, the institutional interests that coincided with a common objective, the generation of knowledge, the complementary technical capacities between the institutions, the transparent financial management, the acquisition processes with standards international, the system of support to community associations through the Grants, the participatory approach, the spontaneous involvement and commitment of women to activities, and last but not least, the professional and human commitment of all stakeholders involved, proved to be the key factors to reach the high levels of effectiveness, impact and sustainability that the evaluation exercise recorded.



Abbreviations

AF	Adaptation Fund of Kyoto Protocol
CAR	<i>Corporación Ambiental Regional</i>
CVS	<i>Corporación Autónoma Regional de los Valles del Sinú y del San Jorge</i>
DNP	<i>Departamento Nacional de Planeación</i>
EIS	Environmental Information System
EWT	Early Warning System
FA	<i>Fondo De Adaptación de Colombia</i>
GCF	Green Climate Fund
GEF	Green Environmental Facility
IAVH	<i>Instituto de Investigación de Recursos Biológicos Alexander von Humboldt</i>
IDEAM	<i>Instituto de Hidrología, Meteorología y Estudios Ambientales (IDEAM)</i>
IPCC	International Panel on Climate Change
MAA	<i>Mecanismo de Aprendizaje para la Adaptación</i>
MADS	<i>Ministerio de Ambiente y Desarrollo Sostenible</i>
AOP	Annual Operational Plan
PNCC	Política Nacional de Cambio Climático
PPR	Project Performance Report
SINA	Sistema Nacional Ambiental
ToR	Terms of Reference
PMU	Project Management Unit
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change



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1. Introduction

1.1. Evaluation objectives

General objective

Conducting the final evaluation of the project "Reduction of risk and vulnerability to climate change in the Momposina Depression region in Colombia", in order to identify and analyse the achievement of results and learning elements for Colombia and UNDP, including lessons learned, which contribute to the sustainability of adaptation measures, and the incorporation of gender equity and human rights issues, which contribute to the reduction of social gaps with the less favoured classes.

Specific objectives

- I. Identify the achievements and lessons learned generated by the Project, which are a contribution to Colombia and UNDP in adapting to climate change.
- II. Carry out a comprehensive evaluation of the project, taking into account the guidelines and guidelines of the Adaptation Fund of the Kyoto Protocol, the Ministry of Environment and Sustainable Development (MADS) and the United Nations Development Program (UNDP).
- III. Assess the effectiveness and efficiency of Project implementation.
- IV. Assess the relevance and sustainability of returns as achievement of results in the medium and long term.
- V. Elaborate a comprehensive and systematic explanation of performances at the end of the project cycle.
- VI. Assess the inclusion of gender considerations in the different phases of the project and the impact of the results on gender equity and other disadvantaged groups.
- VII. Assess the scope and actions developed by the project that contribute to guaranteeing the social, cultural and environmental rights of the participants, which contributes to closing gaps.
- VIII. Prepare the final consolidated report of the evaluation in English and Spanish.
- IX. Assess the impact and scope of the project around the UNDP strategic plan, Colombia's development plan, as well as its contribution to the Sustainable Development Goals (SDGs) and the 2030 agenda.

1.2. Scope and methodology

The methodology applied was based on the documents "UNDP Evaluation Guidelines" and the "Guide for final evaluations of programs or projects" of the Adaptation Fund and aligned with what was agreed between the Evaluation Team and UNDP in the "Methodological Proposal" for the final evaluation approved by UNDP.

The project was evaluated applying the following evaluation criteria:

Relevance

The relationship between the project and the adaptation objectives of the Adaptation Fund of the Kyoto Protocol, UNDP guidelines and environmental and development priorities at the local, regional and national levels.



Effectiveness

The extent to which the intervention achieved, or is expected to achieve, its objectives, and its results

Efficiency

Compliance with international and national norms and standards.

Sustainability

The extent to which the financial, institutional, socioeconomic or environmental risks affect the project results in the long-term.

Impact

Indications that the project has contributed to reducing environmental stress, improving ecological status, or allowing progress towards these results.

Different evaluation questions are associated with each evaluation criterion. Criteria and questions are reported in the in the evaluation ToRs. Annex B shows the evaluation matrix used to develop this exercise.

The following evaluation tools were used:

- Document review;
- Individual interviews;
- Group meetings;
- Focus Group Discussions; and
- Field visits

The evaluation exercise was carried out in three different phases:

Inception phase

Duration: from November 11 to November 22, 2019.

During this phase, the Evaluation Team received the documentation of the project from UNDP. The Evaluation Team delivered the “Methodological proposal for the final evaluation” to UNDP, which was approved by UNDP on November 27, 2019.

Data gathering phase (misión to Colombia)

Duration: from November 25 to December 7, 2019.

The mission in Colombia was coordinated by UNDP taking into account the suggestions provided by the Evaluation Team. The Evaluation Team met various stakeholders that were available for the evaluation exercise. People belonging to the following institutions were interviewed during the evaluation:

- United Nations Development Program (UNDP)
- *Ministerio de Ambiente y Desarrollo Sostenible (MADS)*
- *Departamento Nacional de Planeación (DNP)*
- *Instituto de Investigación de Recursos Biológicos Alexander von Humboldt (IAvH)*
- *Instituto de Hidrología, Meteorología y Estudios Ambientales (IDEAM)*



- *Corporación Autónoma Regional de los Valles del Sinú y del San Jorge (CVS)*
- *Universidad de Córdoba*
- *Universidad Pontificia Bolivariana*
- *CORPOMOJANA*
- *Gobernación de Sucre*
- *Universidad de Sucre*

Eventually, the Evaluation Team had the opportunity to interview 74 people (33 women and 41 men) during several focus groups discussions in the following project communities:

- La Costera
- El Pital
- Pasifueres
- Seheve
- Mata de Caña
- Cecilia
- Mancha
- El Torno

Data analysis and reporting phase

Duration: from December 9, 2019 to March 13, 2020

The Evaluation Team delivered the draft report to the UNDP on January 10, 2020 and replied on February 18, 2020 to comments received from UNDP and its project partners on February 7. Finally, UNDP sent the final approved version of the report in Spanish to the evaluation team on March 4, 2020 for its translation into English. The final delivery date for the definitive delivery of both versions, i.e. in Spanish and English, of the report was March 15, 2020.

The list of the documents consulted, the list of people interviewed and the mission itinerary are presented respectively in Annexes C, D and E.

1.3. Structure of the evaluation report

This evaluation report consists of three main sections:

Project description and background context: the section briefly describes the project and the context, in which it was designed and implemented.

Findings: the section provides the answers to the evaluation criteria and questions, as well as those defined in the terms of reference and, confirmed in the methodological proposal submitted by the Evaluation Team approved by UNDP.

Conclusion, recommendations and lessons learned: the section includes evidence-based conclusions, lessons learned and describes recommendations that are viable, specific and relevant for the benefit of UNDP and its project partners.



NOTE: For reasons beyond the scope of UNDP and the Evaluation Team, no representative of the municipalities involved in the project (San Marcos, Ayapel and San Benito Abad) could be met. Therefore, the opinions of the municipalities on the project were not taken into account when drafting this report.

2. Project description and background context

2.1. Start and Project duration

Start date: June 28, 2012

Expected closing date: June 27, 2017

Expected duration of the project: 5 years

Closing date: January 31, 2020

Actual duration of the project: 7 years and half

2.2. Problems the project sought to address

Colombia has one of the highest disaster rates in Latin America. Between 1970 and 1999, the country recorded an average of 2.97 disasters per year, which is the third highest annual rate among all the countries in the region. During the past 30 years, more than 15.5 million Colombians were affected by disasters (mainly floods, landslides and torrential rains) and in 2010, the Intergovernmental Panel on Climate Change (IPCC) estimated that disasters related to climatic conditions during the period 2000-2005 increased 2.4 times compared to the period between 1970 and 1999. Similarly, according to the Second National Communication of the United Nations Framework Convention on Climate Change (UNFCCC) (2010), Colombia will face changes in future climate variations, especially an increase in the magnitude and intensity of extreme hydrometeorological events associated with the ENSO cycle - El Niño Southern Oscillation - El Niño and La Niña (PRODOC, 2011).

The sub-region of La Mojana is characterized by its high biological wealth represented in a large number of aquatic, terrestrial and transitional habitats that have their origin in river dynamics, hydrological variability, the transition between wet and dry climate regimes and, the contact with three biogeographic provinces: Chocó - Magdalena, Northern Andes and the Caribbean. Its lagoon systems and wetland complexes are unique in the country and provide essential biological connectivity and ecosystem services to the Momposina Depression region and its transitions with mountain regions. However, this sub-region has witnessed an accelerated process of environmental degradation that includes the desiccation of wetlands, the alteration of the hydrological regime through the construction of canals or the filling of natural channels, deforestation, loss of biodiversity. In addition, the lack of control over legal and illegal mining practices inside and outside the region has led to sedimentation and contamination with mercury, methyl mercury, and other bio-accumulators and highly toxic heavy metals, among other problems.



In this context, during the occurrence of the La Niña phenomenon in 2010-2011, a considerable reduction in income and food security was experienced in the La Mojana subregion due to the loss of crops, livestock and fishing areas. A long interruption in the provision of public services, due to the flooding of roads and water supply systems and the overflow of waterways occurred as well. Therefore, the loss of human lives, displacement of people and destruction of homes took place, too.

The severity of the recent ENSO cycles, as well as the expected increase in temperature and changes in rainfall patterns throughout the rest of the century, will have greater negative impacts on the region. Consequently, larger areas of productive land, natural ecosystems and human settlements will be affected, resulting in reduced food security and reduced income due to the loss of biodiversity, ecosystems services, crops, livestock and fishing areas; in a long interruption in provision of public services, due to flooding of roads and water supply systems and overflow of waterways, in further widespread degradation of wetlands and mountain ecosystems due to excessive sedimentation and prolonged flooding; and eventually, in a loss of human lives, displacement of people and destruction of homes. Therefore, the Government of Colombia (GoC) recognized the need to implement adaptation measures in order to reduce climate risks and vulnerability to climate change in the region.

2.3. Main stakeholders (list)

The main actors at national level were *Minambiente*, DNP, *FA nacional*, IDEAM and UNDP, which formed the Project Steering Committee. Furthermore, there were the members of the Technical Committee that, in addition to those already mentioned, included IAvH, *CORPOMOJANA* and CVS. Finally, the Consultative Committee integrated the regional universities (*Pontificia Universidad Bolivariana*, *Universidad de Sucre* and *Universidad de Córdoba*), representatives of the regional autonomous Corporations (*CORPOMOJANA* Y CVS), of the municipal and departmental environmental planning and management committees, as well as representatives of the social organizations of the communities of San Marcos, San Benito Abad, Ayapel and guilds such as FEDEARROZ.

Institution	Activities carried out within the framework of the project
Project Steering Committee	
<i>Minambiente</i>	Government counterpart for implementation. National project management, implementing partner and party responsible for coordinating liaison with national and regional SINA institutions.
IDEAM	General guidelines for the implementation of component 1. Technical definition and accompaniment in the calibration of stations for integration into the National Network. Coordination of the analysis of variability and climate change for the region. Technical coordination of the National Modeling Center and the Center for Forecasts and Hydrometeorological Alerts of La Mojana. Participation in the Technical and Management Committee.
DNP	Review of public policy and territorial intervention guidelines within the framework of regional macro-projects for adaptation to climate change. Review of documents and advice for the development and development of Convention 012 (Convenio 012).
<i>FA Nacional</i>	Supervision of the general guidelines for the implementation of component 1;



	coordination of the contribution of human, physical and financial resources, according to the competences of each entity, to develop hydrodynamic modeling as the first initiative of the National Modeling Center. Participation in the Technical Committee.
UNDP	Official executing agency of the project. Coordination and liaison for the implementation of the 4 results / components of the project. Guidance, technical support, management tools, and theoretical and practical knowledge for project partners. Participation in the Steering, Technical and Consultative Committee.
Technical Committee	
IAvH	Technical advisor for the actions of ecological rehabilitation of wetlands of component 2 of the project. Subscription of the letter in agreement with the UNDP for the structuring and implementation of actions of integral restoration of ecosystems. In charge of the realization of alliances for the execution of the letter of agreement, the implementation activities and the definition of the monitoring strategy. Technical and scientific coordination of the characterization of ecosystem services, regional eco planning and comprehensive rehabilitation and restoration (result / component 2).
CORPOMOJANA	Regional liaison for the operation of the Center for Forecasts and Hydrometeorological Alerts of La Mojana. Promotion of the formulation of the project "Sustainability and maintenance of the early warning system (SAT) of the region of La Mojana with jurisdiction of CORPOMOJANA" for its financing with the resources of the Environmental Compensation Fund. End user of information for the development of local processes and risk management and surveillance. Participation in the Consultative Committee. Accompaniment in the execution of the actions for the rehabilitation of the caños.
CVS	Topobatic survey of the <i>caño</i> San Matías (result / component 2). Design of the Departmental Plan for Adaptation to Climate Change (result / component 4).
Consultative Committee	
Pontificia Universidad Bolivariana	Completion of the Diploma in tools for climate change adaptation and risk management (2014).
Universidad de Sucre	Agreement with UNDP-MADS for: i) the evaluation of heavy metals in sediments and alternatives for the use of rice husk, buchón de agua and sediment disposal in caños of the La Mojana region; ii) stabilization of metals in dredged sediments; and, iii) the control of aquatic macrophytes in the La Mojana caños (result / component 2). Support in the technical design of agrosilvopastoral systems (result / component 3). Training of 115 rural promoters on rural strengthening and adaptation to climate change and ecosystem-based adaptation (outcome / component 4). Completion of the Diploma in climate change adaptation actions aimed at the productive component (2017, result / component 4).
Universidad de Córdoba	Agreement with IAvH within the framework of Cooperation Agreement No. 16-075 for monitoring the restoration and quality of water and the development of the aquatic habitat ecology component (outcome / component 2). Support in the design of monitoring of agrosilvopastoral systems (result / component 3). Training and training of 30 rural promoters on rural strengthening and adaptation to climate change and ecosystem-based adaptation (outcome / component 4). Heavy metal monitoring product of rehabilitation of the <i>caños</i> . Strategic partner in Micro-capital Subsidy Agreement (Grant) signed with ASOFASAN to consolidate the community biological monitoring strategy of wetland restoration



Otros actores	
14 Community Risk Management Committees	Alliance for the processing and reporting of the information generated from the reading of the limnometric stations.
ASOFASAN, ASOAGRIPESCHIS y ASOMATIAS	Execution of the actions for the rehabilitation of 5 <i>caños</i> , participatory biological monitoring for restoration and technical training and participation in exchanges of experiences with other associations.
27 EWS local committees	Community organizations for disaster prevention and management.
<i>Corporación Paisajes Rurales</i>	NGO in agreement with IAvH within the framework of Cooperation Agreement No. 16-075 to implement the actions of comprehensive ecosystem restoration.
ASOPASFU, ASOAGRIPESCHIS, ASOFASAN, ASOMATIAS, ASOCUIVA	Grassroots social organizations in the Micro-Capital Subsidy Agreement (Grant) signed between UNDP / MADS for the hydraulic rehabilitation of the caños in Pasifueres, Mosquito, San Matías and Las Delicias. Establishment of agrosilvopastoral systems, ecological restoration of wetlands and participatory monitoring
APAPI	Grassroots organization in the Micro-Capital Subsidy Agreement (Grant) signed between UNDP / MADS for the rescue of criolla and native seeds in the region of La Mojana, the strengthening of nurseries and the recovery of 20 ha of forests. Beneficiary organization for strengthening through Subsidy Agreement (component 3).
Diocese of Sincelejo	Identification of adapted criolla and native seeds and the implementation of community nurseries. Beneficiary organization for capacity strengthening through Subsidy Agreement (component 3).
Communities	Participants and beneficiaries of wetland rehabilitation processes.
SENA	Training in aquaculture, in handicraft and in entrepreneurship and administrative management.
World Food Programme	Support for the delivery of food-for-work in community gardens during the start of the project prior to the establishment of agroecosystems.
<i>Asociación de Pescadores y Agricultores de la comunidad El Campano</i>	Knowledge exchange for teaching support to prepare fish food with local products of animal and plant origin.
<i>Asociación Manatí</i>	Training on how to manage and use the <i>buchón de agua</i> for handicrafting.
<i>AGROSOLIDARIA San Marcos</i>	Training on how to manage and use the <i>caña flecha</i> for handicrafting.
<i>Artesanías de Colombia</i>	Training for the co-design and improvement of the artisanal products and for the marketing of artisanal products through digital media.
<i>Fedegan – Proyecto Ganadería Colombiana Sostenible</i> (World Bank)	Inter-institutional coordination advisor for the implementation of agrosilvopastoral systems.
<i>Corpoica (Agrosavia)</i>	Inter-institutional coordination advisor to support the technical design of agrosilvopastoral systems and training processes. Beneficiary organization for capacity



	development through subsidy agreement (component 3).
ASOCAMTOR	Partner in the Subsidy Agreement for the implementation of agrosilvopastoral systems. Beneficiary organization for capacity development through subsidy agreement (component 3).
<i>Pastoral social (Montelíbano y Sincelejo)</i>	Implementing partner for the joint work of productive measures or in the exchange of experiences. Beneficiary organization for capacity development through subsidy agreement (component 3).
ASPROCIG	Exchanges of experiences and learning paths.
<i>AGRA arquitectos</i>	Designs and bulding of community centers and homes; definition of the methodology "Collective Knowledge. Solutions from the habitat for an amphibious environment".

2.4. Objectives and expected results of the project

The project objective is "to reduce the vulnerability of communities and ecosystems in the Momposina Depression region to the risks of floods and droughts associated with climate change and variability."

The project has four expected results:

Result 1 – The improved Environmental Information System (EIS) strengthens local capacity and facilitates decision-making related to climate change adaptation.

Outputs related to result 1:

- Output 1.1 – Hydrological and hydraulic models for the Momposina Depression region and the objective area of the project support medium and long-term decision making.
- Output 1.2 – Climate scenarios, trends in climate variability and vulnerability analysis for the target area support decision making for planning instruments and the implementation of adaptation measures.
- Output 1.3 – The mechanisms to collect, process and manage hydroclimatological information at regional and local levels are strengthened and articulated with the national hydroclimatological network.
- Output 1.4 - An early warning system is developed at the local level in order to prepare communities to reduce their vulnerability to extreme weather events.

Result 2 – The capacity of regulation and damping of wetlands with multiple use of the landscape has been recovered, reducing the vulnerability of local communities to the impacts of climate change.

Outputs related to result 2:

- Output 2.1 – There are hydraulic works (infrastructure development, dredging and unclogging covering of water courses) for flood control and hydrological management in the target area.
- Output 2.2 – Ecosystems associated with hydrodynamics of the target area are rehabilitated and their ability to mitigate the effects of floods improved.



Result 3 - strengthened local communities implement adaptation measures to improve their resilience to the impacts of climate change and improve their quality of life.

Outputs related to result 3:

- Output 3.1 – Agricultural production practices resilient to climate change and directed towards women (vegetable gardens and organic crops on piles and native rice adopted in the target area).
- Output 3.2 – Structural measures that respond to climate risks or threats designed and developed.
- Output 3.3 – At least 250 ha with climate-resilient agrosilvopastoral measures established to help small farmers mitigate the effects of floods.

Result 4 – The capacity of institutions and organizations at the national, regional and local levels to implement programmed measures to adapt to climate change has been strengthened to replicate the activities and lessons learned.

Outputs related to result 4:

- Output 4.1 - The lessons learned in the interventions are codified by MADS and used to raise awareness about the management of flood and drought risks generated by climate change.
- Output 4.2 – Local communities and authorities in the target municipalities trained in the risks of climate change related to floods and in adaptation measures that reduce vulnerability.
- Output 4.3 - The topics of climate risk management that are incorporated into the regional, local and territorial planning, environmental and sector instruments are articulated to the national planning guidelines
- Output 4.4 - Coordination between national, regional and local institutions guarantees the sustainability of adaptation actions.



3. Findings

3.1. Relevance

The project was aligned with the institutional mission of the donor, the Kyoto Protocol Adaptation Fund (AF) that was established to finance adaptation projects with a focus on the needs of the communities most vulnerable to climate change. The project met all the strategic priorities of the AF:

- Assist developing countries that signed the Kyoto Protocol are particularly vulnerable to the adverse effects of climate change in meeting adaptation costs.
- Fund concrete adaptation projects and programs that are driven by the signatory countries and based on needs, opinions and priorities.
- Financed projects and programs should also take into account, among others, national sustainable development strategies, poverty reduction strategies, national communications and national action adaptation programs and other relevant instruments.
- In developing projects and programs, signatory countries will pay special attention to the particular needs of the most vulnerable communities.

The project was consistent with the lines of action of the UNDP country office including

- Reduction of vulnerability to climate change.
- Strengthening of environmental governance in natural resource management.
- Sustainable rural development.
- Generation of information for decision-making.

Actually, UNDP's work in Colombia, according to the UNDP Strategic Plan for 2018-2021, aims to contribute to the country's economic and social development being environmentally sustainable and improving the living conditions of the most vulnerable and excluded population, promoting the achievement of the 2030 Agenda for Sustainable Development. The project in its formulation, implementation and for its achievements contributed significantly towards this objective. Indeed, the project adds to the work that UNDP develops globally in the themes of contrast to climate change trying to move towards the achievement of the Sustainable Development Goals of the 2030 Agenda. In particular towards the following SDGs:

- SDG 13 “take urgent action to combat climate change and its impact” and following targets:
 - Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries;
 - Integrate climate change measures into national policies, strategies and planning;
 - Improve education, awareness-raising, human, and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.



- SDG 1 “End poverty in all its forms everywhere” and following target:
 - Build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters.

The project was also aligned with the 2014-2018 National Development Plan “*Todos por un nuevo país*”. In particular, it stands out as the project contributed to the *Pacto por la Sostenibilidad* (pact for sustainability), which aims to:

- Promote knowledge in the community about disaster risks and climate change to make better decisions in the territory.
- Strengthen environmental institutions, research and public management, while fostering dialogue and environmental education.

In Colombia there was an extreme rainy season in 2010-11, which caused flooding in several areas of the country, deeply affecting La Mojana. In the face of this emergency, a series of changes were triggered in the institutional context that concluded after the project began. The State decided to address the risk of the effects of climate change as a central problem of public policy: in this context, the Colombian Adaptation Fund was created, an institution whose competencies defined, among others, the gathering of information on the hydrodynamics of La Mojana, which coincided totally with a project need. In addition, more generally, the project after the 2010-11 season reached a greater relevance because it could represent a first effort to adapt to climate change, capable of generating knowledge to be used at regional and national levels.

The project is considered relevant by all the actors found throughout the evaluation mission.

For the *Minambiente*, and in particular for its Directorate of Climate Change and its Adaptation Group, the project had strategic relevance, since its execution provided very valuable information and working tools on methodologies and practices for adaptation to climate change. This information will surely be used to feed into the implementation of the National Adaptation Plan and the formulation and implementation of other climate change adaptation projects in the country.

At the national level, the project has substantial strategic relevance for other institutions. In fact, the project has contributed to the establishment of the National Modeling Center of IDEAM (see section 3.2. “Effectiveness” for details) covering a real need at the country level concerning the capacity of generating information with a high technical value. This center has carried out outside the project framework, hydrodynamic modeling of other areas of the country, with the modeling of La Mojana being the first of them.



To the thematic, institutional and strategic relevance, the project also added a high degree of methodological relevance; that is to say, the implementation mechanisms guaranteed a generalized active and factual involvement of all stakeholders, and including communities (see section 3.3. "Efficiency"). It is important to highlight that hydro climatic modelling facilitated the approach of national institutions to regions and communities around issues of adaptation to climate change and risk management, since it provided a solid technical basis with detailed, adequate and relevant information to plan all project intervention actions.

The comprehensive ecological restoration model implemented through component 2.2 of the project, was the first pilot in Colombia to make large-scale lowland tropical wetlands. This exercise was also a pioneer for Latin America and served as a platform for the implementation of a rigorous technical, scientific and participatory approach to ecological restoration. Due to its pioneering dimension, restoration is considered as an element of great relevance for the institutions involved since it laid down the approach for future research and implementation. From this point of view, the relevance for IAvH is unquestionable since it could be positioned as the first research institution that led this type of work in Colombia.

The participation of the national institutions located in Bogotá was ensured by the formation of the two committees, i.e. the technical committee and the project steering committee, who have supervised the implementation of the project in their technical advisory and decision-making functions. The evaluation exercise registered the acknowledgement of all the actors with respect to the capacity of the two committees to allow the participation of their members, and by extension, of the institutions they represented. At the local level, the participation of environmental corporations, municipalities and communities was guaranteed through the project consultative committee.

Undoubtedly, the project managed to get the agreement of different national and local entities to execute the activities in a consensual manner and satisfying the institutional interests of each actor involved. The different institutional realities were successfully articulated in the implementation mechanism thanks to this coincidence of interests.

At the community level, the project was very relevant for all the people found throughout the evaluation mission. It is important to note that the communities identified two main dimensions of relevance: food security and productive capacity (including handicrafts). During the evaluation, it was demonstrated that the approach to create and strengthen capacities in the communities was relevant and is a key factor for the sustainability of the project itself. It is clear that the two dimensions have different impact on the communities depending on the geographical and economic conditions that characterize each community.

According to what was expressed in some meetings with the communities, the creation and strengthening of capacities was carried out in a participatory and open manner. The lack of presence of the local institutions, and the little commitment of the big landowners towards the conservation of resources, has caused that the communities have taken greater conscience and leadership to face the development of their region under scenarios of climate change.



The project was designed and implemented at the right moment in time. In the context of climate change, adaptation actions were carried out at the institutional as individual interventions. The project represented the opportunity to facilitate and articulate the efforts of many actors to implement actions at different levels of management: from national to community. This situation allowed the degree of relevance of the project to be very high for all the actors involved.

The evaluation also emphasizes that the implementation of the different initiatives of the project, opened a space for discussion among the communities that was used in the first instance by women, who, leading local processes and generating economic alternatives, aroused the curiosity and subsequent participation of men. It is noteworthy that women got involved in the project patiently and during the course of its execution, they occupied an important space for discussion on the management of environmental resources, leading the process of implementation and consolidation of the project. This dynamic of active participation and empowerment was corroborated in the field mission during all meetings with people who developed substantial work in the communities.

Although the project did not have a direct approach with a gender and human rights perspective, it managed to naturally promote some initiatives of food security and natural resources management with an inclusion and equity approach that contributed to the social, economic and environmental rights of the communities of the region.

The logic of the project is clear and well exposed. The four components contribute to the achievement of the objective by intervening at different levels: information generation and institutional strengthening (result 1); recovery of the functions of regulation and damping of extreme climatic events of the landscape (result 2); support to resident communities (result 3), and institutional strengthening at national and local level (result 4). The project assumed, in its intention, an approach that involved actions to achieve its objective in the implementation period (short term) and to maintain the benefits over time (medium and long term).

At the time of implementation, the project design had problems in terms of the sequence of the activities corresponding to each component and the sufficient resources for its financing. The generation of information has been recognized by the Project Management Unit (PMU) and by the Steering Committee as an essential technical need to continue with the field work, represented by results 2 and 3.

The proposed indicator to measure the achievement of the project objective is not SMART (Specific, Measurable, Attainable, Relevant, Time Bound). Its formulation only indicates poor households that were generically benefited by the project. Its formulation did not add any information to be included in the indicators at the result level. It was not specified how by being beneficiaries of the project, they were able to improve their living conditions and reduce their vulnerability to climate change.

On the contrary, the indicators at the result level are well formulated allowing the most important dimensions of the same formulation of each component to be measured.



The governance structure of the project has the roles of each institution well defined. The Steering Committee as a place for decision-making, the Technical Committee as an advisory body and the Consultative Committee as the space for participation of stakeholders. That type of governance was very well valued by all the institutions and people met during the evaluation mission in Colombia.

Finally, it is important to note that the project represents, for how it was developed, for its form of governance, and for its ability to generate a paradigm shift on the type of development in the *mojanero* territory, a successful example of change adaptation intervention climate. It opened the way to the formulation and current implementation of the project entitled "Improving water management practices resilient to climate change for vulnerable communities in La Mojana". Such a project has a greater impact on the region and manages more resources for its financing, (more than 38 million dollars). It is financed by the Green Climate Fund (Green Climate Fund). This new initiative is considered by all actors as a staggering of the Kyoto project.



3.2. Effectiveness

Results Achievement Rating Matrix

Indicator	Baseline	Target	Actual achievement	Evaluation comments	rating
Project objective: to reduce the vulnerability of communities and ecosystems in the Momposina Depression region to the risks of floods and droughts associated with climate change and variability					
Number of poor households in the three municipalities of the project area vulnerable to climate-related events benefiting from the project, disaggregated by the gender of the head of household.	La Mojana was severely affected by the 2010-2011 La Niña event. Around 211,857 people (43.4% of the total population) were affected in 2010 by floods. The three municipalities included, have an UBN index of 62.25%, which is well above the national average of 27.25%, indicating high levels of poverty and low levels of access to education, housing, health and basic sanitation and sewerage.	- At the end of the project, at least 54,000 people in more vulnerable conditions (10,800 families) from the municipalities of Ayapel, San Marcos and San Benito Abad of the Momposina Depression region, with an area of 406,054 hectares, will benefit from the solutions proposed by the project.	- The indicator is not appropriate for measuring the achievement of the objective. In addition, there is no logical coherence between the baseline that takes into account the UBN index and the project objective that refer only to the number of people benefited from the project.	The indicator is not appropriate for measuring the achievement of the objective. The evaluation mission registered a great interest from all the communities found and a lot of anecdotal information that confirmed the appreciation and evaluation of the project for the strengthening it generated in terms of vulnerability reduction. PMU is aware of the inconsistency of the indicator and is (at the time of the evaluation) monitoring the effects of the project in terms of vulnerability reduction. The results of such monitoring are not yet available to the Evaluation Team.	NA Not Applicable
Result 1: The improved Environmental Information System (EIS) strengthens local capacity and facilitates decision-making related to climate change adaptation.					
Number of hydroclimatological stations of La Mojana reporting weather data as part of the national network.	- The project area has: a) two (2) automated flow stations connected to the IDEAM alert system (on the Cauca river, near the project area), b) five (5) pluviometric stations, c) two (2) weather stations, d) one (1) water level measurement station in the	- At the end of the project, at least two (2) automated hydrological stations, two (2) automatic weather stations, and five (5) automatic rainfall stations, some with satellite transmission function.	The replacement of 11 conventional stations by automated stations, 4 of them hydrological and 7 meteorological. - Installation of 18 community limnimetric stations. - 3 INTEL SEOM E servers, 4 workstations, 4 laptops were	The evaluation appreciates that the project achieved a significant contribution to the improvement, in terms of geographical and technology coverage, of the weather stations with importance for the La Mojana region. All institutional actors met	HS Highly Satisfactory



	<p>San Marcos lagoon and in the wetland complex, and e) one (1) water level measurement station in the lagoon of Ayapel and in the wetland complex.</p>		<p>delivered to IDEAM.</p>	<p>during the evaluation mission recognized this achievement. In addition, it covered the institutional need of IDEAM in terms of operational capabilities.</p>	
<p>Number of local and regional institutions and actors that have access to information related to climate change and integrate it into their work.</p>	<p>- There is only one national tool for assessing the effects of climate change.</p>	<p>- Al final del proyecto a nivel local y regional el acceso directo a la información relacionada con el cambio climático se habrá incrementado en los tres municipios seleccionados, de la siguiente manera: a) tres alcaldías (Ayapel, San Marcos y San Benito Abad), b) tres Consejos Municipales de Gestión de Riesgo, c) dos Consejos Departamentales de Gestión de Riesgo, d) dos CAR's (CVS y CORPOMOJANA), y e) Once organizaciones de base</p> <p>- At the end of the project at the local and regional level, direct access to information related to climate change will have increased in the three selected municipalities, as follows: a) three municipalities (Ayapel, San Marcos and San Benito Abad), b) three Municipal Risk Management Councils, c) two Departmental Risk Management Councils, d) two CAR's (CVS and CORPOMOJANA), and e) Eleven community-based organizations (CBOs). (OBC).</p>	<p>- Formation and update of the Early Warning System committees. - The hydrodynamic modeling studies carried out by the Colombia Adaptation Fund were delivered to the municipal, environmental and higher education institutions of the project's area of influence - Development of analysis of climate variability and climate change for the region of La Mojana, this information was disclosed and delivered to local authorities and community based organizations - Risk scenario analysis - Comprehensive action plan for flood risk reduction - Technical advice to the Government of Sucre, CORPOMOJANA, Corporation of the Valleys of Sinú and San Jorge (CVS), City Halls of Ayapel and San Benito, for the management and interpretation of the information generated by the project - Final technical report</p>	<p>- The achievement of this result represents one of the dynamizers that have allowed the execution of the project. Specifically, the modeling study is considered a key strategic achievement of the project because it has generated the necessary knowledge for the start of the execution of the activities related to the other results.</p>	<p style="text-align: center;">HS Highly Satisfactory</p>



<p>Number of rural communities and local and regional institutions in the project area benefit from an Early Warning System (EWS) that reduces the risks of extreme weather events.</p>	<p>There is no early warning system in the project area, the only ones are those of the Cauca River and those that IDEAM publishes through periodic newsletters. - Daily CVS bulletins based on IDEAM reports</p>	<p>- After five years 100% of rural communities (6440 women and 6860 men) and local and regional institutions in the project area benefit from an Early Warning System.</p>	<p>The strategy for the implementation of the Early Warning System in different communities of the municipalities of San Benito Abad, San Marcos and Ayapel has been developed. - there are 27 organizations; 248 participants for the EWS - The construction of the La Mojana Hydrometeorological Forecast and Alert Center in CORPOMOJANA was completed. - Community workshops were carried out to update mapping of flood threats, evacuation routes, safe areas and installation sites for minor monitoring equipment. - Operational equipment of the La Mojana Hydrometeorological Forecasting and Alert Center (3 computers, 1 UPS, 1 printer) was transferred to CORPOMOJANA. - An ABS 50W megaphone model KP-66USB was delivered to each of the 42 project communities - The document was generated with the technical specifications for the acquisition of the server.</p>	<p>The Hydrometeorological Forecast and Alert Center is physically installed in CORPOMOJANA. The achievement is rated as satisfactory by two critical elements: at the end of the project implementation, the center does not yet have an official sustainability strategy since it will be funded by the GCF project lasting eight years. The other critical element is represented by the fact that the center began the preparation of newsletters only from August 2019 and at the time of the evaluation, the strategy to reach the communities was under study and was not finalized, therefore, The information does not yet reach all communities. In all meetings with the communities there was great enthusiasm for the SAT for the future and interest in receiving the newsletters as soon as possible. Only the communities that have the llimnimetric stations are partially informed because they interact with the center by sending the data for the measurements.</p>	<p>MS Moderately Satisfactory</p>
<p>Result 2: The capacity of regulation and damping of wetlands with multiple use of the landscape has been recovered, reducing the vulnerability of local communities to the impacts of climate change.</p>					



<p>Percentage of households in La Mojana that benefit from the infrastructure to control floods, disaggregated by the gender of the head of household</p>	<p>A provisional work in the area of Sejeve to control the floods and 146 families affected in 2010 in the towns of Sincelejito, Cecilia, and Sejeve (municipality of Ayapel). - Zero (0) infrastructure and 500 families affected in 2010 in the districts of El Pital, Cuenca and Las Flores (municipality of San Marcos). - Zero (0) infrastructure and 138 families affected in 2010 in the towns of Las Chispas, Pasifueres, Tosnobán, Chinchorro and El Torno (municipality of San Benito Abad). Note: The figures of the baseline of the project do not change, however it is clarified that they have been updated for 2012.</p>	<p>At the end of the project, at least 50% of the families in the three selected municipalities benefit from the infrastructure to control floods, as follows: - At least 50% of the families (1,543 men and 1,127 women) in the villages of Sincelejito, Cecilia, and, Rondón, Korea, Mata de Caña, Los Negritos, Cuchillo, Alfonso Lopez, Barcelona Caracolí, San Elena, Las Marías (municipality of Ayapel). - At least 50% of the families (3,323 women and 2,737 men) in the El Torno, Campanito, Monosolo, Venice, La Mancha, Parcelas de la Gloria and Parcelas de Viloría districts (municipality of San Marcos) - At least 50% of families; 801 women and 709 men) in the villages of Las Delicias, Pasifueres, Tosnovan and La Guaripa (municipality of San Benito Abad).</p>	<p>3,586 families, including 15,603 people of which 7,285 women and 8,318 men were benefited by the hydraulic rehabilitation of the priority caños in the project area. - The cofinancing by the CVS was obtained for the topographic survey and the bathymetry of the caño San Matías worth 35 million pesos. - An analysis report of sediment use and management alternatives was generated by the University of Córdoba, where the procedure for the stabilization of metals in sediments extracted from San Matías, Pasifueres and Mosquito caños is detailed. - A total of 32.35 km of caños were intervened, as follows: - Caño Pasifueres: 9.5 km - Caño Las Delicias: 8.65 km - Caño Mosquito: 10.2 km - Caño San Matías: 13 km - A total of 182,100 m³ sediments were removed in the rehabilitated caños, as follows: - Caif Pasifueres: 46, 200 m³ - Caño Las Delicias: 39,900 m³ - Caño Mosquito: 56,000</p>	<p>It represents the most strategic achievement at ground level. Using the hydroclimatic modeling, the prioritized caños could be rehabilitated. In addition, together with hydrodynamic modeling, the integral rehabilitation of the caños has shown that the La Mojana ecosystem works according to its own natural flood and drought cycles, without this circumstance representing a dramatic threat to populations settled in the territory , at least in years where extreme weather events are not recorded.</p>	<p>HS Highly Satisfactory</p>
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			<p>m3</p> <ul style="list-style-type: none"> - Caño San Matías: 40,000 m3 - A total of 17 crosswalks were built in the rehabilitated caños, like this: <ul style="list-style-type: none"> - Caño Pasifueres: 9 - Caño Mosquito: 2 - Caño Las Delicias: 6 - An unexpected result was the replica of the measure of hydraulic rehabilitation of caños, in the communities of Venezuela and Las Chispas of the municipality of San Benito Abad, in which macrophyte removal activities were carried out, in 1.5 and 1, 2 km respectively. - Technical concept to the Government of Sucre with guidelines for actions aimed at restoring the La Guaripa, Caracucha and Bajo Pureza caños system 		
<p>Area (in ha) of rehabilitated wetlands that contributes to reduce vulnerability to climate change.</p>	<ul style="list-style-type: none"> - 250 hectares reforested with Acacia Magnum in 2004 along the La Quebradona stream in the Ayapel lagoon and wetland complex (Ayapel municipality). - 120 hectares reforested in 2004, with oak trees along the Muñoz, San Mateo and Trejos streams (municipality of San Marcos, most of the trees have been lost due to flooding in 2005). - No land has been 	<p>At the end of the project, at least 700 hectares of the tributary system of the three main lagoons / wetland complex are rehabilitated, as follows:</p> <ul style="list-style-type: none"> - 550 hectares rehabilitated from the tributary system of the cienaga de Ayapel / wetland complex. The representative ecosystems of this sector are the San Jorge rivers that pass through the western side of 	<ul style="list-style-type: none"> - 954 hectares of the three main prioritized wetland complexes for La Mojana rehabilitated in this way: <ul style="list-style-type: none"> - 200 ha in the rehabilitation of the tributary system of the municipality of Ayapel, under the San Jorge basin, and tributaries of the Ayapel swamp, Caño Viloría and Caño San Matías, with influences from the Cauca River in extreme conditions 	<p>The project achieved more than planned: 26% of additional surface was rehabilitated. The rehabilitation work was also used as an opportunity to carry out capacity building activities.</p>	<p>HS Highly Satisfactory</p>



	<p>rehabilitated in the municipality of San Benito Abad</p>	<p>the populated center of Sehéve and the Cauca river through the San Matias channel next to Sincelejito, with a wide network of drains, other important aquatic ecosystems such as the channel stand out. Caño viejo and Ayapel swamp. The potential (affected) ecosystems selected for restoration include: Zapal Bajo del Latal, Zapal La Lucha, Caño San Matias, Zapal La Cienguita, Zapal Madre Vieja.</p> <p>- 75 hectares rehabilitated from the tributary system of the San Jorge river along Santiago and the Canoas streams. The representative ecosystems of this sector are the Cienagas Cuenca or Costanera, Las Flores, Florida, although we also find small micro-basins such as the streams La Hicotea, Los Emilianitos, Aguasclaras, Aguasprietas, Mabobo, La Pita.</p> <p>- 75 hectares rehabilitated from the tributary system of the San Benito Abad wetlands. Las Delicias and Caño Pasifueres are identified as the main ecosystems and water regulators in the area. Potential (affected) sites selected for restoration</p>	<p>of breakage of levees .</p> <ul style="list-style-type: none"> - 289 ha of the tributary system of the San Jorge river at the height of the municipality of San Marcos in the caño Carate and the complex of swamps of La Cruz, San Marcos, Pital, Cuenca and Las Flores. - 456 ha of the tributary system of wetlands of San Benito Abad, tributaries of the Caño Rabón and the complex of swamps of Cuiva, Las Tinas and Caños Pasifueres and Las Delicias. <p>-- The achievement has been achieved by three actions: early forest rehabilitation measures, implementation from the research of the ecology of zapal with implementing partner (Alexander von Humboldt Institute) and implementation of measures with counterparts and community associations.</p>		
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		include: Zapal Doña Polita, Caño Pasifueres, Zapal Los Beltrán, Zapal Boronbolo and Zapal Los Chávez.			
Result 3: Strengthened local communities implement adaptation measures to improve their resilience to the impacts of climate change and improve their quality of life.					
Number of local agro-ecological initiatives that are resilient to climate change adapted by communities (disaggregated by gender) in the project's target area.	<p>The following are in progress in the Ayapel area: a) nine trials with orchards built on stilts (known locally as "trojas") covering 0.86 hectares and benefiting 178 families.</p> <p>In the San Marcos and San Benito area, the following has been developed: a) productive pens with 12 community organizations, and b) 80 organic crops in the river fords, which cover 20 hectares.</p>	<p>At the end of the project, at least seven (7) local agroecological initiatives have been implemented in the target municipalities as follows:</p> <ul style="list-style-type: none"> - Twenty (20) orchards have been built on stilts for the cultivation of vegetables and tubers (for example, onion, lettuce, yam, squash and tomato), which cover two (2) hectares in the project municipalities and benefit 415 families (996 women and 1,079 men). - One thousand three hundred and thirty-three (1,333) family gardens adapted to drought and flood situations that benefit the same number of families (3,370 are women and 3,295 are men). For the cultivation of aubergine, tomato, sweet pepper, green beans, squash, chives, cucumber, coriander, medicinal plants. - 1,217 families establish organic crops with the following varieties: corn 1,007 ha, beans 108.8 ha, pigeon pea 20 ha, plantain 14.52 ha, cassava 20.17 ha. 	<ul style="list-style-type: none"> - 1,987 family gardens, with a total area of 90,872 hectares -1571 families with 2660 Ha, of transitory organic crops - 1220 families with a total of 2761 Ha, sown in rice - Rural rice mills in El Pital (San Marcos), Las Chispas (San Benito) and Sincelejito (Ayapel) - Fish pond in Cecilia (Ayapel) - 4 craft workshops (one per community) 	<p>Achievement is very high. The actions of food production adopting innovative techniques, was very well received and appreciated by all communities found throughout the evaluation mission. The evaluation highlights how the use of rice mills has been of great importance not only for the communities and the associations that manage it. They also serve people from other communities who can save money that was previously invested in transportation and travel.</p>	<p>HS Highly Satisfactory</p>



		<p>Benefitting 6,922 men and 3,165 women</p> <ul style="list-style-type: none"> - 729.3 hectares of native rice resistant to local climatic conditions and mercury contamination benefit 1,217 families (6,922 men and 3,165 women). - Three rice mills for post-harvest management, installed to store rice for periods of extreme weather. Benefitting 1,423 families (3,272 women and 3,843 men). - A fishpond that benefits 48 families, (110 women and 130 men), for the production of fish during periods of drought and mitigation of mercury contamination in fish - A production program for natural artisan fibers that benefit 120 women from the three municipalities. 			
<p>Number of structural architectural adaptation measures carried out in the target area to reduce vulnerability to floods</p>	<p>10 educational units built on stilts in the communities of Cecilia (3), El Totumo (4), El Cuchillo (1), and La Coquera (2) (Ayapel municipality), with the support of the Ministry of Education.</p> <ul style="list-style-type: none"> - Proposal to build 8 classrooms in the municipality of Ayapel. - There are no adaptive housing units in the municipalities of Ayapel, San Marcos and San Benito 	<ul style="list-style-type: none"> - Remodeling and improvements to 60 existing houses in the target area, in order to make them resilient to climate change. - Ten (10) additional educational units built on stilts or floating to adapt to flood risks in the municipalities of Ayapel, San Marcos and San Benito Abad - Three (3) communal buildings and models of houses on stilts or 	<ul style="list-style-type: none"> - 1 community center completed (El Torno, San Marcos, Sucre) -5 community centers under construction (El Cuchillo, Cecilia, Corea, Seheve and Venecia) - 4 community centers in the start of construction phase - 14 educational centers with structural measures adapted to provide children with water in times of drought. 	<ul style="list-style-type: none"> -The remodeling and improvement of houses and educational centers had significant achievements, since the proposed goals were exceeded. -The construction of community centers lags in its achievements, due to regional public order problems and difficulties in the processes of convening, evaluating, selecting and contracting companies that 	<p>HS Highly Satisfactory</p>



	<p>Abad, although some designs have been developed.</p>	<p>houseboats to face the risks of floods (one for each municipality).</p>	<p>-501 houses with rainwater harvesting systems</p>	<p>offer financial and technical guarantees to build community centers with a focus vernacular adapted to weather conditions, there were significant delays in the start and development of works. However, this is a result that is in progress of compliance according to the proposed goals. The evaluation considers the achievement of this indicator very satisfactory despite the fact that the centers were not completed at the time of the evaluation. It is clear that the problems of public order outweighed the capacities to control the execution of the project by UNDP and its partners.</p>	
<p>Number of hectares established with the agro-forestry-pastoral systems in the project area</p>	<p>- 50.7 hectares have been established with agro-forestry-pastoral systems for three users in the rural area of the municipality of Ayapel. - Zero (0) hectares in the municipalities of San Marcos and San Benito Abad.</p>	<p>- An additional area of 250 hectares established with the agro-forestry-pastoral system in the rural area of the project's coverage area (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).</p>	<p>-271 hectares established with agrosilvopastoral systems (138 producers distributed in 7 communities). - 3 model farms with three elevated tanks for water storage with its distribution network up to the drinking fountains. - 17 cows inseminated with straws of the Gyr breed. - 11 pregnant cows for 65% effectiveness. - 14 community monitors for biological monitoring. - 2 community monitors for</p>	<p>Achievement is very high. Furthermore, the diversification of the intervention by establishing agrosilvopastoral systems was very well received and appreciated by the beneficiaries.</p>	<p>HS Highly Satisfactory</p>



			plant and soil monitoring.		
Result 4: The capacity of institutions and organizations at the national, regional and local levels to implement programmed measures to adapt to climate change has been strengthened to replicate the activities and lessons learned.					
Number of public agencies and community-based organizations jointly involved in climate risk management and adaptation planning.	<ul style="list-style-type: none"> - Regional Autonomous Corporations - CARs - CVS and CORPOMOJANA have Regional Environmental Management Plans (PRGA) and Quadrennial Action Plans (PAC) to address climate change issues, but do not include strategies to reduce vulnerability or adaptation considerations. - The Departmental Development Plans (PDD) for Córdoba and Sucre include strategic guidelines for risk management and disaster prevention, but do not refer to climate change and adaptation. - The three municipalities have Territorial Planning Plans (POTs) and Municipal Development Plans (PDM), which include strategic guidelines for risk management and disaster prevention, but only includes a general mention on climate change and its effects (floods, landslides, avalanches). 	<ul style="list-style-type: none"> - 25 CBOs, including an association of women artisan weavers, and community leaders from 3 municipalities (10 in Ayapel, 12 in San Marcos, and 3 in San Benito Abad, of which at least 3 are women) are strengthened and promoted adaptation skills and that their communities articulate with local, regional and national public organizations. - Nine (9) public institutions are strengthened and promote measures for adaptation to climate change in the coverage area, and coordinate with community organizations. 	<ul style="list-style-type: none"> - 42 communities in the three municipalities of San Marcos, San Benito Abad and Ayapel; 38 CBOs, including three (3) women's organizations (Asociación de Cuiva, Asofasan and Asocantor) and community leaders (155 rural promoters for adaptation to climate change) strengthened. - 21 institutions from the 3 municipalities (San Marcos, San Benito Abad and Ayapel), strengthened in the implementation of adaptation and risk management facing the effects of climate change, on issues related to good agro-ecological practices, rescue of native seeds adapted to the Mojana region, ecological restoration of wetlands, early warning systems and adaptive infrastructure and good livestock practices. 	The evaluation exercise identifies the achievement as satisfactory. However, the Evaluation Team was able to appreciate the commitment and progress in terms of capacities in the communities during the mission. No meeting with institutions referring to the three municipalities took place during the mission (see section 2.1 "Scope and Methodology")	S Satisfactory
Number of local and regional plans that integrate adaptation to climate change considerations.	There are seven civil organizations (AGROPISCA, ASOPECE, ASODEPACA, ASOPESIN,	Twelve (12) plans that incorporate climate change adaptation considerations: a) two PGARs for CARs; b)	Climate change considerations have been incorporated into 11 plans: - 3 municipal development	The project fulfilled the expected achievement, although the plans are only 11 and not 12. The	S Satisfactory



	<p>ASOAGROLLERAS, ASONEGRITOS, and ASOPESPAL) in the municipality of Ayapel; however, they do not currently address the issue of adaptation to climate change.</p> <ul style="list-style-type: none"> - There are eight civil organizations (FIDES, AGROMOJANA, COOAGRISANMARCOS, Women's Committee, COPEVI, ACUASUCRE, Fishermen's Association, and SERVIPECA) in the municipality of San Marcos; however, they do not currently address the issue of adaptation to climate change. - There are 38 civil organizations in the municipality of San Benito Abad, however, it is unknown how many are active. - There are 9 public agencies (MADS, IDEAM, CVS, CORPONOJANA, the departmental governments of Córdoba and Sucre, and the municipalities of Ayapel, San Marcos and San Benito Abad) with knowledge of climate change issues in the coverage area, but at present they are not adequately articulated with community organizations. 	<p>two PACs for CARs; c) two PDDs for departmental governments; d) three municipal POTs; and e) three municipal PDMs</p>	<p>plans for Ayapel, San Marcos and San Benito Abad.</p> <ul style="list-style-type: none"> - 3 Plans of land use for Ayapel, San Marcos and San Benito Abad. - 1 CORPOMOJANA action plan. - 1 departmental climate change plan for CVS. -2 departmental development plans -1 Risk management plan, San Benito <p>During the project, the Governor's Office and environmental authorities received support for the installation of an agroclimatic table on climate change in the Department of Sucre</p>	<p>evaluation highlights that the creation of the agroclimatic table has the participation of a wide range of socio-economic actors from La Mojana. This circumstance is extremely important because it guarantees a constant dialogue on climate issues to face climate change with adaptation measures, when these are necessary.</p>	
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<p>Government personnel (local, regional and national) and community members who effectively develop new techniques for reducing the risk of climate change (disaggregated by gender).</p>	<p>Basic course in emergency management for flood risks has been carried out for the communities of Cecilia, Sincelejito and Sejeve (Ayapel municipality), Viloría (municipality of San Marcos) and Las Chispas (San Benito Abad, municipality) with the support of CARITAS - Germany, diocese of Sucre and Montelibano (Sucre) and the National Secretariat of Social Pastoral. The community has basic knowledge about ecological rehabilitation and houses or other constructions on stilts, but this has not been connected with less climate risk and adaptation.</p>	<p>At least 50% of the population in 11 communities (including approximately 3,170 women) in the project area; the three municipalities, the three Municipal Risk Management Councils, the two CARs, and the two Departmental Risk Management Councils (Córdoba and Sucre) have adequate knowledge of the measures for adaptation to climate change proposed in the project, including the interpretation and use of hydroclimatological information, wetland rehabilitation and conservation; agroecological practices, adaptive architecture, and their role in adapting to the impacts of climate change.</p>	<p>64% of the population of the 42 communities in the project's area of influence, 33,084 of whom 59% are women, have improved their knowledge of adaptation to climate change and variability. 13 training and education programs have been developed to strengthen knowledge on the following topics: adapted agroecology, adapted self-construction, agrosilvopastoral systems, ecological restoration, water recovery, nursery, organization and social cohesion, fish farming, accounting and administration, alert systems hydroclimatological monitoring, among others. To carry out this training, different techniques and tools have been used, such as workshops, meetings, method demonstrations, field trips and brochures, murals, film forums, diploma courses, among others.</p>	<p>The achievement was much broader than expected.</p>	<p>HS Highly Satisfactory</p>
<p>Lessons learned from the pilot activities in La Mojana were disseminated through the National Portal on Climate Change (PNCC) and the Adaptation Learning Mechanism (MAA).</p>	<p>- Zero (0)</p>	<p>- At least ten (10) lessons learned for each component of the project, including one related to gender, are disseminated through the PNCC and the MAA.</p>	<p>- 42 lessons learned from the project shared with institutions affiliated to the National System of the Environment and other national, regional and local institutions that deal with issues related to climate change in the country.</p>	<p>The achievement was much broader than expected</p>	<p>HS Highly Satisfactory</p>



Rating scale:

1. Highly Satisfactory (HS): the project did not show shortcomings in achieving its objectives.
2. Moderately satisfactory (MS): there were moderate shortcomings.
3. Moderately unsatisfactory (MI): the project had significant shortcomings
4. Unsatisfactory (I): there were important shortcomings
5. Highly Unsatisfactory (HI): the Project has severe shortcomings.

The project governance model represented by the three committees (steering, technical and consultative) allowed adequate risk management, as well as a very positive logical framework definition. No problems were found in the implementation of the activity, with the exception of social security problems related to the construction of community centers. The evaluation exercise recognizes that this type of problem was far beyond the possibilities of the project itself.

In fact, the risks and assumptions identified in the logical framework mainly referred to the possibility of coordinating the different actors so that the activities were viable. The approach of the project and its form of governance, through the three committees (directive, technical and consultative) annulled this risk. The evaluation exercise did not identify any long-term risk that can be totally or partially attributed directly to the way the project is managed, with the exception of the Forecast Center and those related to the EWS (see section 3.4. “Sustainability” for details).



3.3. Efficiency

The project lasted longer than expected at the beginning. From five years foreseen in the project document, it became more than seven. The reason for this are explained within the framework of the institutional changes unleashed after the extreme rainy season in 2010-2011 that caused flooding in several areas of the country, deeply affecting La Mojana. Faced with this emergency, the Colombian State decided to address the risk of the effects of climate change as a central problem of its policies and therefore, new institutions were created, such as the Colombian Adaptation Fund, with new competencies and powers that took time to consolidate and articulate to existing ones.

However, the overall level of project efficiency was satisfactory.

Throughout the implementation there were delays due to three different factors:

- The first was related to the design. The components related to result 2 and 3 needed that the activities of result 1, specifically the hydrological and hydraulic models for the Momposina Depression region, provide the necessary information to plan in a rational way the activities of results 2 and 3. Given the new powers of the Adaptation Fund of Colombia, which among others contemplated modeling for the 11 municipalities of La Mojana (of greater scope), the Steering Committee decided to join forces and make decisions with the best available information. Within the framework of this strategic collaboration, the hydrodynamic model was delivered in the second half of 2016 and therefore the implementation of adaptation actions and measures established in the framework of results 2 and 3 of the project was delayed. Therefore, in the Mid Term Evaluation it was recommended to extend the execution period to 21 months and the formal request for extension before the donor established as an end date on June 30, 2019.
- The acquisition process for the construction of community centres faced delays in finding qualified suppliers and a security problem that occurred after the start of the works.
- Due to evacuation alerts related to the Hidroituango disaster risk contingency in 2018¹, the technical team of the project had to evacuate the area for two months and therefore, the activities planned for the rainy season of April 2018 had to be postponed for the following rainy season in October of the same year. The second extension of seven months was consequently necessary and was determined as the closing happening on January 31, 2020.

This exceptional delay did not cause substantial inefficiencies in the use of the project's financial resources due to the following elements in its management:

- The project collaborated with non-profit associations to work with the communities. This guaranteed a better approach and link with the communities (see details in 3.2. Effectiveness) and

¹ The Ituango hydroelectric project is currently the largest in the country (in terms of infrastructure) and is located on the Cauca River. During its construction phase, design and engineering failures were detected. Such occurrence caused two declarations of national emergency due to the possible overflow of the dam and the closure of the floodgates.



allowed, through the Grant mechanism, to maximize the execution of resources to facilitate the implementation of adaptation measures.

- The high level of relevance allowed the Colombia Adaptation Fund to get involved with the project and, consequently, grant significant co-financing, with which the Colombia Adaptation Fund fully covered the hydrodynamic modelling study of La Mojana with resources from the Nation's general budget.
- Additionally, the Colombian Adaptation Fund included in its plans, the construction of adaptive infrastructure, housing and schools, and therefore, the project was able to modify these interventions without compromising its achievements.
- Finally, the project benefited from funds from the Small Grants Program (SGP) of the Global Environment Facility (GEF) managed by UNDP that allowed the establishment of 12 gray water treatment systems to complement the rehabilitation of the *caños*.
- As already mentioned in section 3.1. “Relevance”, the project was able to take advantage of a favourable situation around the interests of various national institutions to carry out climate change adaptation actions, which facilitated the articulation of the collective effort of the actors to implement actions at different levels of management, from national to community level.

The financial management of the project was supported by the Annual Operating Plans (AOP) that have been evidenced in the Project Performance Report (PPR), thus demonstrating a reasonable use of the financial resource. From an administrative and accounting point of view, the project did not register any problem. The only one that was found was related to the process, already mentioned, of acquisition for the construction of community centres.

The project governance model represented by the three committees (directive, technical and consultative), allowed the PMU to have the day-to-day management of the project under its control, while enabling adaptive management aimed at meeting the targets of the project. The flow of information, managed by the PMU, made the members of the Steering Committee and the Technical Committee aware of the state of progress of the implementation and allowed them to make technical and strategic decisions complying with the logical framework and, when necessary, propose changes to the same logical framework approved by the donor. Three decisions of the Steering Committee, which are shaped as elements that characterize the adaptive management of the project, stand out as keys for the implementation of the project and therefore for its efficiency:

- The aforementioned decision to develop the hydrodynamic model in collaboration with the Colombia Adaptation Fund, which laid the basis for implementing the project on a solid technical-scientific approach.
- Include the IAvH in the process, allowing to take advantage of its technical and scientific platform to strengthen intervention approaches in the territory. Likewise, through the implementation of the project it was possible to apply the concepts, methodologies and guidelines of the National Ecological Restoration Plan, as well as share the lessons learned and experiences in the national ecological restoration network.



- The Grants as mechanisms of direct financing to the communities were successful because they allowed a strengthening of the associativity for the management of projects at other levels that go beyond the management of the project before municipalities and governorates (see section 3.4. “Sustainability”).

It is necessary to specify that these three decisions did not lead to any significant change in the budget allocated to each project result. It was evidenced, simply, that a part (\$ 958,688) of the budget allocated to result 2, was used to sign a letter of agreement with IAvH, which is considered a timely decision because it has allowed it to take advantage of its technical and scientific trajectory in matters of restoration.

Component	Budget - ProDoc (USD)	Changes (USD)
Result 1	1.348.797	1.348.797
Result 2	2.478.664	1.519.976
Letter of agreement with IAvH	---	958.688
Result 3	2.417.635	2.417.635
Result 4	889.038	889.038
Project execution	677.640	677.640

At the time of the evaluation mission in Colombia, the project still had \$ 59,665 available to execute before closing.

The evaluation emphasizes that the active participation of UNDP for the administration and implementation of the project, guaranteed a high level of political independence that was evident in the smooth interaction between the institutions at the national and regional levels.

It is also appropriate to mention that the management and logistics scheme for the operation of the project in the field, i.e. the direct hiring of the staff, was an element of efficiency. Actually, it facilitated the articulation schemes between the different work areas, the direct follow-up of all activities and interventions in the territory, as well as the accompaniment to the communities allowing a rigorous approach for the achievement of results of the logical framework (see section 3.2. "Effectiveness"). In addition, in this context, it is also noteworthy that the governance scheme and links with the different institutions of the national order, allowed the project to directly support the design of public policy on adaptation within the structure of the Ministry of Environment and Sustainable Development.

The involvement of regional universities contributed to their mission of teaching, research and social commitment towards the communities of the region.

Finally, it is necessary to highlight the professional and human commitment of the project team that favored the continuity of the intervention actions at the regional and local level despite the changes in government and the weakness of the institutions at regional and municipal level. The human factor and the commitment to the leadership of professionals in the region, is a clear intangible differentiator that determined the achievement of the results, the impact that the project had on all levels of incidence and learning for national institutions.



3.4. Sustainability

The high level of relevance of the project is the key element that allows the intervention in the Momposina Depression to be defined as sustainable. To this element added to other elements throughout the implementation that had as a strategic horizon the sustainability of the intervention in the medium and long term that go beyond the execution period:

- The generation of knowledge based on a technical-scientific approach undoubtedly represents the basic element of the project's sustainability. This in fact allowed all the actors, including the communities, to appreciate in a solid and precise way the challenge that the project was facing. At the same time, this type of approach de-built the typical pipe rehabilitation approach that had been applied in La Mojana for many years (based on the paradigm of flooding as a threat, which envisaged the construction of infrastructure such as dikes and *jarillones*) and that it had no effective result for the improvement of the living conditions of the communities. In fact, over the years some of these infrastructures have been destroyed, representing a loss of public investments.
- The generation of knowledge and capacity development of beneficiary communities also represent a sustainability strategy. Recognizing communities as the engine of their own development and as agents of change has proved to be a concept understood by all the actors found during the evaluation mission. The capacity development of the associations, present in the territory through the Grant schemes, adds to this concept and constitutes a key instrument of project management (importance of the associations as a point of entry to the communities and support for the implementation), as well as a strategic element to increase the degree of sustainability (due to the importance of the leadership of the associations to induce changes). In fact, the UNDP model for the administration and implementation of the project made it possible to link communities directly in risk management actions and adaptation to climate change.
- The involvement and capacity development of the different institutions at the local level represented at the same time an implementation and a sustainability strategy. This type of strategy is considered appropriate to ensure a higher level of sustainability for all institutional actors in Colombia. It is not possible to estimate whether this strategy is successful or not, since, during the evaluation exercise, the Evaluation Team could not find any representative of the municipalities of the municipalities involved in the project.

The project document shows how the production of local and regional plans that integrate climate change adaptation considerations represents a sustainability strategy based on the achievements that the project intended to achieve. The document includes as well a specific mention to the fact that during implementation it would be necessary to look for solutions that ensure EWS financing.

The project has not foreseen a specific strategy that addresses financial sustainability. This situation does not represent a problem in itself, due to the size of the overall results, with the exception of the Forecast Center and the EWS. Although at the time of the evaluation the project does not have defined the official and long-term financing of the Forecast Center (by IDEAM and CORPOMOJANA), the resources obtained by CORPOMOJANA through the Environmental Compensation Fund constitute an alternative to its financing in



the medium term. In addition, there is also GFC financing that guarantees continuity of operation in the medium term. In this context, it is identified that the new GCF project is key to ensuring a financial transition process of the forecast center while the official institutions of its operation (IDEAM and CORPOMAJANA) define official mechanisms for resource mobilization that can guarantee its sustainability in the long term.

Regarding the maintenance and operation of the installed hydro-meteorological stations, it is considered that they will continue to function after the project is closed as long as they are already integrated into the IDEAM network of stations, as well as already evidenced in the project document.

The evaluation shows that the field activities carried out with and in the communities have a good level of financial sustainability due to the high degree of appreciation and involvement expressed by its members. This level is reflected in an improvement of agricultural and fisheries production that allows generating additional savings for people, and in this sense, the replication is guaranteed autonomously. Another intervention greatly appreciated by the beneficiaries was the training to formulate small community projects to the associations that participated in the project. At the time of the evaluation, some of these associations were already in the process of formulating new projects to manage resources.

No regional institution has, at the time of this evaluation, a budget dedicated to maintaining the hydraulic functionality of the rehabilitated *caños*. The evaluation exercise considers that this situation is inevitable and is beyond the scope of the project. In addition, it highlights that in the communities concerned, community cleaning processes are taking place on the banks of the *caños* that contribute to their better maintenance. There is a study that compares the costs of hydraulic rehabilitation with respect to investment costs to build conventional infrastructure, which shows significant losses that materialized after the 2010/11 season. In this context, the new approach to development and management of wetlands, promoted by the project, which includes the involvement of communities; the sustainable valorization of ecosystem services; and the maintenance of “smart” infrastructures that do not compromise the operation of the system Mojanero (runoff and drainage); is the way forward to reduce the risk and vulnerability of communities to climate change.

The training of expert local in nursery’s management, many of them represented by women, as well as the promotion of seed banks for horticultural production and restoration with native species, stands out as one of the great achievements of the project. Another technical achievement was the realization of propagation protocols of 40 native species, whose information was not available for the region of La Mojana. In this sense, the evaluation exercise sees an area of opportunity for communities to provide regional corporations with plant material for their restoration processes in the future.

The project communities show a high level of satisfaction towards the project for having promoted their learning in relation to how to become more resilient as people and communities. These people are convinced that, with what they have learned, they can better face extreme weather events. In support of their conviction, they indicated to the Evaluation Team the following aspects:



- The new awareness that caring for the environment must be individual and collective responsibility.
- Better knowledge, although not complete, of adaptation measures that can be developed at the community level.
- The confidence that the EWS, in the near future, will be able to give them clear and timely information to face potentially harmful weather events.

The capacities of the local actors, i.e. governorates and municipalities, do not mean at the community level a reliable support to guarantee themselves a use of the benefits provided by the project. The communities do not judge the involvement of these authorities in community development as significant.

Although the impact of the restoration process at the community level is overwhelming in terms of improving the living conditions of the beneficiary communities, the technical intervention model does not seem to be accepted among regional institutions because their work routine has been for a long time, before the project was implemented, based on a direct support approach (input distributions) to agricultural production, reforestation and containment infrastructure construction. Another factor that explains the low incidence at the regional level is that institutions have environmental management priorities that exceed their own technical and operational capabilities. In this context, the incidence approach that has most welcomed among regional institutions, was that of agro-silvo-pastoral systems because it is the project activity that has an evident dimension of high productive performance in the short and medium term.

The project left an installed capacity in the institutions, especially those of national order, in terms of their interaction and management to coordinate the generation of high-level scientific and technical knowledge for decision making.

IDEAM, the leading state agency in environmental studies, in parallel to the implementation of the project, has carried out other hydrodynamic modeling in other areas of the country, replicating what has been learned through the project in its institutional work practice.

Minambiente, IAvH and UNDP have taken advantage of the work done to document the experience of restoration / rehabilitation of wetlands through an institutional publication, still under review during the evaluation mission. This publication will allow the knowledge generated by the project to be publicly accessible.

It is understood that extreme weather events, including potential problems associated with Hidroituango, can cause significant damage to project communities. In addition, the problem of chemical contamination, especially with arsenic, mercury and cadmium, caused by mining activities upstream of La Mojana, continues to pose a threat to the health of all project beneficiaries, and beyond the intervention evaluated, of all the inhabitants of the region. The decision to promote the cultivation of varieties of rice *criollo* that do not accumulate heavy metals in their grains demonstrates that, if possible, the project has tried to find solutions in relation to this problem. However, the evaluation exercise recognizes that the topic, although



very relevant to public health, was outside the scope of the project because of its regional and national scope.

The evaluation exercise shows some challenges that may hinder the sustainability of the work carried out by the project. The paradigm shift necessary to face the development of La Mojana does not seem to be understood in the same way by all the actors involved. The need to allow the drainage of the *caños* instead of intervening with containment infrastructure is not a consensus among all the actors that have participated in the project and there are different points of view between the local and regional authorities on the management of wetlands in that sense.

This difference in points of view is explained by the resistance to new models of sustainable management, in addition to the political-economic pressure exerted, as well as the particular interests around the extension of land for extensive livestock, among others.

3.5. Impact

The evaluation process collected information and anecdotal evidence that allows to affirm that there was a strengthening of the adaptation process to ensure the flow of ecosystem services that, in turn, ensures resilience to climate change.

The first and most important strengthening factor is the paradigm shift that the project successfully promoted among the communities. The awareness of living the dynamics of amphibious culture is evident among the communities visited. From this point of view, all the activities carried out in a participatory manner within the framework of ecological restoration, played a decisive role in promoting this paradigm shift.

The second is the learning that the project generated in the communities. The enthusiasm and the capacity of the communities to explain the activities carried out throughout the implementation of the project and the demonstrated ease at answering with full understanding the questions during the focus groups and the field visits represent an indication of the good level of learning.

In the course of the mission, it was possible to verify the perception of all the actors involved in the project regarding the positive impacts of the interventions to reduce the vulnerability of populations to climate change. In fact, anecdotal evidence collected during the evaluation mission shows that there has been an increase in food security, a diversification of the diet, a greater capacity for saving due to the establishment of family gardens and riparian vegetation that allow self- supply of vegetables for households; an increase in pasture production and milk production due to agrosilvopastoral systems and an increase in fishing resources after the rehabilitation of the *caños* and with the construction of the fish farming ponds. As already mentioned, (see section 3.1. “Relevance), the indicator regarding the project objective does not measure the true effect of the project, that is, the reduction of vulnerability. The evaluation exercise notes that the PCU has begun the collection of data in the field to be able to measure such decrease.



Finally, it is remarkable that at the community level the project promoted transformations in the roles of family work, whose dimensions could not be appreciated by the time constraints of the mission. Many people, women and men, highlighted that the project encouraged women to have better access to activities that take place outside their homes. Women were more involved in the different activities of the project with respect to men. This new social role is highly valued by the communities and women found during the mission.

The project allowed progress in its technical strengthening and in the positioning of adaptation to climate change as a fundamental issue in regional planning. The Forecast Center is a mechanism that, in the medium and long term, will allow the consolidation of regional corporations, especially CORPOMOJANA, as institutions that generate knowledge for decision-making because they already have the technology and expert staff. This Forecast Center is the only one in the country that operates in a rural area and incorporates the participation of local communities, being this participatory approach a contribution of the project management model promoted by UNDP.

For national institutions, notably Minambiente, DNP, and IAvH, the project has had a significant learning impact. Interventions aimed at reducing the vulnerability of populations to climate change, the technical-scientific approach to generate knowledge, and the participatory approach to link local people, communities and institutions in development processes, constitute a new way of working and, specifically for the Ministry of Environment and Sustainable Development, it can provide important elements to provide feedback into its National Adaptation Plan and its general role within the framework of the National Environmental System. Finally, as already mentioned, the project provided the opportunity for IDEAM to expand its network of high-tech hydro-climatological stations that can transmit real-time and quality data to produce hydrodynamic models.

4. Conclusions, recommendations and lessons learned

4.1. Conclusions

Conclusion n° 1

The evaluation shows that the **very high degree of relevance of the project for all the actors** involved has been the necessary element so that the implementation could achieve the expected results with a high level of sustainability. The project was also able to take advantage of a favourable situation because the different institutions at national level were looking for scenarios to implement actions to adapt to climate change. Such convergence of intentions facilitated the articulation of a collective effort for the implementation of actions at different levels of management, from the national to the community level. The actions of this project allowed taking the discourse of climate change to the territory, as well as the implementation of concrete adaptation actions.

Conclusion n° 2

The logic of the project is clear and well exposed. The four components / results contributed to the achievement of the objective, intervening at different levels: information generation and institutional



strengthening (result 1); recovery of landscape regulation and damping functions (result 2); support to resident communities (result 3), and institutional strengthening at national and local level (result 4). Only two design flaws were identified. It was found that the proposed indicator to measure the scope of the project objective is not SMART (English acronym Specific, Measurable, Attainable, Relevant, Time Bound). Its formulation only indicates to poor households that benefited generically from the project. However, its formulation did not add any information to be included in the indicators at the result level. Nor was it specified how by being beneficiaries of the project, they were able to improve their living conditions and reduce their vulnerability to climate change. Another point identified was that the original design addressed only the flooding scenarios, however, throughout its execution the approach included the drought scenarios, with which the project changed in a very adaptive and flexible way its approach to interventions according to the climatic and hydrological dynamics of the region.

Conclusion n° 3

The project was implemented very efficiently. The thematic relevance of the project also had, by how it was implemented, a high degree of methodological relevance and the implementation mechanism ensured guaranteed an actual involvement of all actors, including communities. The formation of the three project management committees (managerial, technical and consultative) allowed that the ideas and solutions proposed could be discussed and agreed by all the project actors, including the beneficiary communities. This form of work facilitated synergies, even of financial nature, that ensured the high level of management efficiency. The logical project framework was used in this context as a management guide. Based on this perspective, the evaluation shows that the decision to start the implementation based on the generation of technical-scientific knowledge and the financial contribution of Colombia Adaptation Fund was strategic since it facilitated the development of a virtuous and highly participatory process, which was successful in terms of achieving results, sustainability and impact.

Conclusion n° 4

The implementation of the project was effective because the achievement of all results is satisfactory in all components, with the exception of the EWS, which does not yet reach all project communities. The most outstanding achievements and impacts of the project are the following:

- Recognition by all actors of the “amphibious culture” as a characterizing element of the La Mojana ecosystem.
- Consequent recognition that a shift of intervention paradigm in La Mojana is necessary: from a productivist approach, which includes containment infrastructure and deep dredging, to an approach that considers “amphibious culture” and the mojanero ecosystem as key elements for adaptation to change climate, and more generally for the development of the communities that live there.
- Reduction of vulnerability of communities. The anecdotal evidence collected during the evaluation mission shows that there was an increase in food security, a diversification of the diet, a greater capacity for saving (due to family gardens and riparian vegetation), an increase in pasture



production and of the milk production (by the agrosilvopastoral systems) and an increase of the fishing resource (by the rehabilitation of the caños).

- An increase in animal biodiversity. After the ecological rehabilitation / restoration of wetlands, communities have reported that there was an increase in the number and abundance of animal species that returned to the wetland habitat, especially birds and mammals.
- The installation and operation of the La Mojana Forecast Center, which includes the EWS, is a technical opportunity to generate regional information from a strategic site for the country such as the Momposina Depression. It also constitutes a platform to position the strengthening and leadership of CORPOMOJANA. The challenge is to give continuity to the process so that the corporation consolidates the operation of the center as part of its operational and technical priorities.

Conclusion n° 5

The high level of relevance of the project is the key element that allows to state that the **intervention in the Momposina Depression is sustainable**. Add to this element others that had as a strategic horizon the sustainability in the medium and long term that go beyond the execution period:

- The generation of knowledge based on a technical-scientific approach undoubtedly represents the base element for the sustainability of the project.
- The generation of knowledge and capacity development of beneficiary communities also represented a sustainability strategy. Recognizing the communities as the engine of their own development and as agents of change turned out to be a concept understood by all the stakeholders met during the evaluation mission and from the perspective of the communities themselves, represents a key element of sustainability.
- The involvement and strengthening of the different institutions at the local level represented an implementation and sustainability strategy. This type of strategy is considered appropriate to ensure a higher level of sustainability for all institutional stakeholders in Colombia.
- The changes in the structures of the national government and its institutions have been used by the project to adapt to the new national and regional political guidelines, represented by the National Plan for Adaptation to Climate Change and the new competencies of the Colombia Adaptation Fund.

Conclusion n° 6

At the time of the evaluation there is no clear identification of the official long-term financing strategy of the Forecast Center by IDEAM and CORPOMOJANA. However, the resources from the Environmental Compensation Fund and the GCF project are alternatives to ensure its operation in the short and medium term.

Conclusion n° 7

The strengthening of the process of adaptation to climate change was identified. The first and most important strengthening factor is the shift of the development paradigm that the project successfully promoted among the communities. The awareness of being able to live by sustainably taking advantage of



the resources and dynamics of an “amphibious territory” was evident in each community visited during the evaluation mission. Another factor was the enthusiasm, their ability to explain the activities developed by the project and the ease of answering the questions with full understanding during the field visits.

Conclusion n° 8

The mechanism of the Grant scheme encouraged participation and ownership linking communities to the project.

Conclusion n° 9

The evaluation acknowledges that there is a general perception among the communities about the lessons learned and experiences acquired during the project. It is evident that they feel prepared to face a new contingency of flooding or droughts because they have relevant information, new knowledge, food sources and diversified economic income. Likewise, its strengthening, union and new strategies are useful and successful for the resolution of local conflicts such as the interruption of the construction of community centers, where it was the communities that negotiated, with arguments backed by empirical information and evidence the necessity to finish the works.

Conclusion n° 10

The understanding of the messages of the project and the willingness to participate in meetings and workshops by women, opened new spaces for participation and involvement for them. Beyond the training, the women from La Mojana have acted, naturally, with leadership scenarios and gradual changes in their ways of life that have allowed them to explore new ways of relating to their families, their territories, the family economy, their communities and other women with similar interests. In all the intervention actions of the project, the Evaluation Team found that women had a relevant commitment and leading role.

Conclusion n° 11

The challenge of continuity and replication of agrosilvopastoral and integral restoration actions is land tenure, since most communities do not have ownership or there is no official definition of tenure. Another challenge for these actions is that, although the communities have high-quality technical information and knowledge, they do not necessarily have receptive partners in regional institutions that can support the management of their projects. It is also noteworthy that the great reception of agrosilvopastoral systems by communities and regional institutions represents an opportunity to position the model of rehabilitation, restoration and ecosystem connectivity as an alternative intervention in the territory. The actions of integral restoration and establishment of agrosilvopastoral developed by the project have the potential to articulate to other regional conservation processes such as the establishment of protected natural areas, the declaration of RAMSAR sites and the promotion of ecotourism.

Conclusion n° 12

The paradigm shift proposed by the project for the development of La Mojana has been accepted by all stakeholders of the national order met during the evaluation mission. However, the change does not



register the same reception among all the actors of the regional governmental sphere. The conventional paradigm that has been applied for years in La Mojana continues to have adherents within regional corporations. It is evident that generating a paradigm shift in development and intervention is not an achievement that can be achieved within the span of a single project.

Conclusion n° 13

The continuity of the project through the new project funded by the GCF is an opportunity for national institutions to position the discourse of adaptation to climate change within the framework of compliance with the agenda of the National System of Climate Change SISCIIMA and 2030 (specifically regarding the SDGs 1. End of poverty; 2. Zero hunger; 6. Clean water and sanitation; 10. Reduction of inequalities; 12. Responsible production and consumption; 13. Climate action and 15. Life of terrestrial ecosystems). It is evident that after the project, the region has a scientifically sound baseline that provides guidelines for intervention strategies.

4.2. Recommendations

Recommendation n° 1

PMU / GCF Project Steering Committee ⇒ **to include members of regional universities in the Technical Committee of the project financed by the GFC** to position the technical approach of the project as a model for reducing vulnerability to climate change (hydrodynamic model, regional eco planning and comprehensive restoration strategy, among others). It is necessary to make a permanent accompaniment to the process of environmental planning that regional corporations do, so that the gradual incorporation of criteria that seek alternative and sustainable interventions to those conventionally used in the region (such as hard infrastructure as dams) can happen. In this context, a formal and constant accompaniment of regional universities is essential. It is necessary to establish a mechanism so that, through their extension programs, professors assume a permanent role in the technical committees of the project as interlocutors between national and regional institutions with the aim at facilitating the consolidation of the technical discourse, as well as the convenience of its implementation for all stakeholders in the territory. By defining and formalizing a role of advice and constant support of universities in the technical and consultative committees of the project, a channel for dialogue and encounter between the technical and technological transitions provided by the project and, interests, approaches and trajectories of work of corporations in the region can be established.

Recommendation n° 2

MADS/FA/DNP/Regional Corporations ⇒ in relation to recommendation n. 1, the three national institutions and regional corporations, as national and regional leading institutions in environmental issues, could open spaces from the national and regional level to recognize and institutionalize this new approach to the development of “amphibious territories” in the region and in the country. The project has sufficient information that will support, technically and financially, how to establish new mechanisms for integral intervention in degraded flood areas to restore hydraulic and ecosystem connections, so that the complexities of each system can be addressed in a particular way to make viable flexible and adapted sustainable development options in the medium and long term. The experience in La Mojana has been



considered as an “experimentation laboratory” that Colombia has to address new ways of rural development under climate change scenarios and more in line with the nature of “amphibious territories”. Likewise, the experiences of the macroprojects led by the FA and the DNP, as well as the MADS adaptation projects, also add expertise and learning to these new visions of development designed from and for the regions according to their geographical and cultural particularities. That is why this institutionalization scenario of the new approaches to adaptation is an opportunity to capitalize on regional experiences, to position the National Climate Change Adaptation Plan within the framework of national planning, and to align with the fulfillment of the agenda. 2030 and other international commitments that Colombia has. It is also relevant that the Ministry of Environment and Sustainable Development strengthen regional corporations to be the institutions that articulate technical-scientific approaches with local and regional needs. The GCF-funded project, due to its size and relative importance in terms of budget and territorial representation, is a platform from which the institutionalization of such approaches can be promoted.

Recommendation n° 3

PMU/Project Steering Committee/Technical Committee of the GCF project \Rightarrow to establish a transition plan to deliver formally the Forecast Centre to *CORPOMOJANA*. The plan should end in four years. Ensuring the financing of the Centre with funds from the GCF project will imply a delay in its inclusion within the institutional priorities of the Corporation and IDEAM. The delivery plan must envision an official financing strategy of the Centre by the national and regional institutions with the respective powers. To that end, it is suggested to take advantage of all the technical inputs of the project (hydrodynamic model and diagnoses of water pollution, among others) to position a regional understanding of the processes of environmental degradation of the country's macro watersheds. It is necessary that public and private institutions that have intervention roles in these territories are linked to generate synergies that promote recovery, rehabilitation and restoration processes. In this context, the conformation of the *Mesa de Control y Seguimiento a la Contingencia de Hidroituango*, provides a platform for the stakeholders involved in La Mojana to contribute with their different experiences to enrich this macro-regional understanding and promote different articulation and support scenarios. Under this perspective, the great potential of the region is the Forecast Centre of La Mojana. The Centre, under the leadership of IDEAM, can position its technical role and financial sustainability also through the sale of specialized products for decision making (agro-climatology) and risk management at regional and national level (floods and contingencies) including at level of the *Mesa de Control y Seguimiento a la contingencia de Hidroituango*, the trade unions, the agroclimatic table, businessmen and other high-level key stakeholders in the territory. In this context, the opportunity to position the Forecast Centre is also within the technical management priorities of *CORPOMOJANA* and, in the long term, of the CVS as long as the activities of the Centre are gradually involved. The Centre's financing strategy should also include a cost study to provide support services for agricultural production.

Recommendation n° 4

PMU/Project Steering Committee/Technical Committee of the GCF project \Rightarrow to continue with the joint and articulated work with the career professionals of the Corporations to allow the technical accompaniment processes that the project has fostered, to consolidate in the medium and long term beyond the changes of regional government. In the context of environmental degradation of the Cauca,



Magdalena and San Jorge macrobasins, the legal ruling of the Medellin High Court of February 2019, which recognizes the Cauca River as a subject of rights, provides the opportunity to regulate national and regional processes that impact negatively on La Mojana. Likewise, Law 1523 of 2012 on risk and disaster management contextualizes a favorable scenario to position the progress of the project around the strengthening of regional institutions (CORPOMOJANA) and its technical role for decision-making with regional and scientifically sound information.

Recommendation n° 5

PMU/Steering Committee of GCF project ⇒ check whether the financing schemes through the Grants, which are not directly possible according to the contractual rules (UNDP / GCF), can be replicated in another way, to allow the members of the beneficiary communities to lead the project activities. Direct financing to communities as a way of management, participation and commitment of communities proved to be very successful. The use of different forms of intervention through rural extension mechanisms, as well as the formalization of associations and synergies with similar projects, can be elements that contribute to this end.

Recommendation n° 6

PMU/Steering Committee of GCF project ⇒ the evaluated project and the GCF project have high quality information that can feed into conceptual, methodological and theoretical debates around the new approaches to adaptation to climate change. Therefore, it is recommended that a rigorous account of the different interventions should be carried out in La Mojana by the academic sector. The region is an example of failed and successful experiences around the management of “amphibious territories” that deserve to be evaluated to prioritize resources and actions according to their relevance, impact and effectiveness that contribute to better regional planning with adaptation criteria and new development approaches.

Recommendation n° 7

PMU/UNDP ⇒ develop a communication protocol between the different areas / components and consultants of the GCF project to be able to program more efficiently the specific studies and diagnoses that meet the requirements of all components, so that logistic efforts can be combined and not replicate actions.

Recommendation n° 8

PMU/Steering Committee of GCF project ⇒ given the magnitude of the investments made for the ecological restoration/rehabilitation component; it is relevant to continue with the participatory and technical monitoring of the restoration actions, so that the process trends can be established and the effectiveness, in terms of ecosystem resilience, in the medium and long term in terms.

Recomendación n° 9

UNDP ⇒ keep the direct implementation scheme with technical personnel in the GCF project, since in this way the articulation between the different components, the transversal adoption of the intervention approach, and the permanent monitoring and follow-up of the processes that are developed in the communities, are ensured.



Recomendación n° 10

PMU/Steering Committee and Technical Committee of GCF project ⇒ develop a large-scale communication strategy. With special reference to the bulletins of the Forecast Center, it is a priority to take the information beyond the departmental and municipal Committees of risk management and the most vulnerable communities: there are other less vulnerable communities that can also take advantage of the information, as well as other stakeholders interested in the information generated for the region. This strategy should in principle be designed and developed in a professional manner by experts in communication and advertising on a permanent basis at different scales (national and regional), so that the messages to convey each different audiences at different levels of diffusion.

4.3. Lessons learned

Lesson learned n° 1

Ecosystem and community-based adaptation is a gradual process that takes time to consolidate at the local level. Incorporating and adapting the interpretation of La Mojana as an “amphibious territory” took more time to establish intervention strategies, but ensured a differentiated implementation according to the particular conditions of the region and, consequently, a successful community appropriation, which is evidenced in the replication of experiences by other communities that were not involved in the process. In a territory such as La Mojana, the implementation of actions to reduce the vulnerability of communities has been carried out gradually as it was necessary to develop scientific technical models to justify actions that really had an impact and effectiveness according to geographical conditions and social of the region. The process of liaising skeptical communities of institutions was gradual due to the capacity development and accompaniment processes that were necessary to build trust and commitment. Within these processes, another factor that influenced the delays has been the adoption of new productive, cultural and relationship practices with the territory. From this perspective, it is acknowledged how the involvement of women can promote the commitment of communities to the activities proposed by the project.

Lesson learned n° 2

The comprehensive intervention approach, with new strategies to interpret the landscape, and technical, scientific and community approach, has marked a distance from traditional approaches to understand the “amphibious territories” of the country and specifically the region, which were based on the paradigm of floods as a problem to be solved with containment infrastructures. From the moment of the floods in 2010-2011, the opportunity opened up to rethink those old paradigms from different levels of decision and incidence, so that the project set up scenarios to intervene the territory from a new perspective. So far, the new perspective has given indications of being more adaptive to hydrological, ecosystem and cultural dynamics, therefore, the rapid recovery and empowerment of the living conditions of local communities were overwhelming.

Lesson learned n° 3

The respect of the roles of each institution involved in the implementation of the project, the institutional interests that coincided with a common objective, the generation of knowledge, the complementary technical capacities between the institutions, the transparent financial management, the acquisition



processes with standards international, the system of support to community associations through the Grants, the participatory approach, the spontaneous involvement and commitment of women to activities, and last but not least, the professional and human commitment of all stakeholdersinvolved, proved to be the key factors to reach the high levels of effectiveness, impact and sustainability that the evaluation exercise recorded.

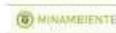


Annex A – Evaluation matrix

Evaluation questions	Indicators	Sources	Methodology
Criterion - Relevance: relationship between the project and the adaptation objectives of the AF, UNDP guidelines and environmental and development priorities at the local, regional and national levels.			
How does the project support the area of interest on adaptation of the Adaptation Fund and strategic priorities? How does the project incorporate the UNDP guidelines contemplated in its country program and strategic plan? How does the project incorporate the objectives and goals that are proposed in Colombia's development plan?	Existence of a clear relationship between the objectives of the project and the focal area of adaptation of the FA. Evidence of the objectives and actions developed by the project with the UNDP guidelines and goals. Evidence of the actions developed by the project to contribute to the objectives and goals set out in Colombia's development plan	Project documentation. Colombia Development Plan	Analysis of documents. Website of the Adaptation Fund. Interviews to UNDP, MADS and project staff
How does the project support environmental and development priorities at the national level? What has been the level of participation of those interested in the design of the project? Does the project take into account national realities (policy and institutional framework) both in its design and in its implementation? What has been the level of participation of those interested in the implementation of the project? How has the project included a differentiating approach on gender issues in the development of actions? How has the project incorporated human rights issues in the achievement of the results?	Existence of a clear relationship between the objectives of the project and the objective of sustainable management of the environment of the respective national policy and strategy. Appreciation of key stakeholders regarding the level of adequacy of the design and implementation of the project to national realities and existing capacities. Consistency between the needs expressed by national stakeholders and the FA-UNDP criteria. Level of involvement of government officials and other partners in the project design process. Level of actions developed by the project to incorporate gender and human rights issues in the achievement of results	Project documentation <i>Política Nacional de Desarrollo Rural Integral (Segeplan 2009), Plan Nacional de Adaptación y Mitigación (Segeplan 2016) Ley PROBOSQUE (Decreto 2-2015), Política y Estrategia Nacional de Diversidad Biológica (CONAP 2013)</i>	Analysis of documents. Website of the Adaptation Fund. Interviews to UNDP, MADS and project staff. Interviews and focus group discussion with project key stakeholders.
Are there logical links between expected results of the project and its design (in terms of project components, choice of partners, structure, implementation mechanisms, scope, budget, use of resources, etc.) Is the project duration sufficient for achieve the proposed results? Do the	Level of coherence between the expected results and the design of the internal logic of the project. Level of coherence between the project design and its implementation approach. Level of coherence between the areas	Project documentation.	Analysis of documents. Website of the Adaptation Fund. Interviews to UNDP, MADS and project staff. Interviews and focus group discussion with project key stakeholders.



intervention areas of the project have the necessary characteristics to achieve the proposed results?	of intervention and the expected results.		
Has the experience of the project provided the possibility of obtaining relevant lessons for other future projects aimed at similar objectives?		Data gathered during the evaluation	Análisis de datos.
Criterion – Effectiveness: extent of achievement of the expected results and objectives of the project			
Were the expected results achieved?	Logical framework indicators	Project documentation Key Project stakeholders	Analysis of documents. Website of the Adaptation Fund. Interviews to UNDP, MADS and project staff. Interviews and focus group discussion with project key stakeholders.
To what extent were the risks adequately managed? What has been the quality of the mitigation strategies developed? Are there clear strategies for risk mitigation related to the long-term sustainability of the project?	Integrity of risk identification and assumptions during project planning and design. Quality of information systems established to identify emerging risks and other issues. Quality of risk mitigation strategies that were developed.	Project documentation Key Project stakeholders	Analysis of documents. Website of the Adaptation Fund. Interviews to UNDP, MADS and project staff. Interviews and focus group discussion with project key stakeholders.
Criterion - Efficiency: compliance with international norms and standards			
Was adaptive management used or needed to ensure efficient use of resources? Have the logical framework, work plans or any changes made to them been used as management tools during project implementation? Have the financial and accounting systems been adequate for project management and for producing accurate and timely financial information? Have the reports of adequate progress been? Do they respond to the reporting requirements? Has the project execution been as effective as originally proposed (planned vs. real)? Have financial resources been used efficiently? How has the results-based management approach been used during project implementation?	Availability and quality of financial and progress reports. Punctuality and adequacy of the reports delivered. Co-financing planned vs. real. How appropriate the options selected by the project have been based on context, infrastructure and cost. Cost associated with the delivery mechanism and management structure, compared to other alternatives.	Project documentation Key Project stakeholders	Analysis of documents. Website of the Adaptation Fund. Interviews to UNDP, MADS and project staff. Interviews and focus group discussion with project key stakeholders.
Criterion - Sustainability: measure of the financial, institutional, socioeconomic or environmental risks that sustain the results of long-term projects.			
Have sustainability strategies been integrated into the project design?	Evidence / Quality of the sustainability strategy	Project documentation	Analysis of documents
Have sustainability strategies been integrated into the project implementation?	Evidence / quality of the actions carried out to ensure sustainability.	Project documentation Key Project stakeholders	Interviews to UNDP, MADS and project staff. Interviews and focus group



	Evidence of commitment from international partners, governments and other stakeholders to financially support relevant sectors / activities after project completion.		discussion with project key stakeholders.
Have financial sustainability strategies been integrated? Are recurring costs sustainable after project completion?	Evidence / quality of the actions carried out to ensure sustainability. Evidence of commitment from international partners, governments and other stakeholders to financially support relevant sectors / activities after project completion.	Documents supporting agreements. Project documentation Key Project stakeholders	Interviews to UNDP, MADS and project staff. Interviews and focus group discussion with project key stakeholders.
Is there evidence that the partners and beneficiaries of the project will continue activities beyond the completion of the project? What is the degree of political commitment to continue working on the results of the project? Is the existing capacity at national and local level adequate to guarantee the sustainability of the results achieved?	Level and source of future financial support that should be provided to relevant activities and sectors after project completion. Commitments of international partners, government or others interested in supporting financially after finalizing the project	Key Project stakeholders	Interviews to UNDP, MADS and project staff. Interviews and focus group discussion with project key stakeholders.
Are there risks to the environmental benefits that were caused or expected to occur? Are there environmental threats that the project has not addressed?	Evidence of possible threats.	Key Project stakeholders	Interviews to UNDP, MADS and project staff. Interviews and focus group discussion with project key stakeholders.
What are the main challenges that can hinder the sustainability of efforts? Have they been addressed during project management? What potential measures could contribute to the sustainability of the efforts made by the Project?	Changes that could mean challenges to the project.	Key Project stakeholders	Interviews to UNDP, MADS and project staff. Interviews and focus group discussion with project key stakeholders.
Criterion - Impact: indications that the project has contributed to reducing environmental stress or improving ecological status, or that has allowed progress towards these results.			
What are the major indications that allow identifying that there was a strengthening of adaptation processes to ensure the flow of multiple ecosystem services while ensuring resilience to climate change?	Increases in institutional, technical, community and individual capacities for integrated environmental management.	. Project documentation Key Project stakeholders	Analysis of documents. Interviews to UNDP, MADS and project staff. Interviews and focus group discussion with project key stakeholders.



Annex B – List of documents consulted

- *Diagnostico para determinar la vulnerabilidad de La Mojana*
- Project Document
- *Documento de trabajo “Experiencias, saneamiento básico y ambiente sano para las comunidades”*
- Mid-term Evaluation
- Final reports for project components 1, 2 ,3 and 4
- *Informe final de las actividades de levantamiento de línea base, monitoreo y seguimiento, remoción de sedimentos y vegetación acuática en el caño Las Delicias, La Mojana*
- *Informe final de las actividades de levantamiento de línea base, monitoreo y seguimiento, remoción de sedimentos y vegetación acuática en el caño Pasifueres, La Mojana*
- *Informe final “definición y ejecución de actividades para la rehabilitación hidráulica del caño Mosquito y el establecimiento de vegetación riparia”*
- *Informe final “definición y ejecución de actividades para la rehabilitación hidráulica del caño San Matías y el establecimiento de vegetación riparia”*
- *Informe “Implementación de prácticas para el mejoramiento de acceso y calidad de agua en sistemas familiar y comunitarios para reducir la vulnerabilidad de las comunidades e incrementar la resiliencia ante los riesgos asociados al cambio y la variabilidad climática”*
- Informe final “Definición de modelos de sistemas agrosilvopastoriles”
- Operational Policies & Guidelines – Adaptation Fund
- *Pacto por Colombia, Pacto por la Equidad, Plan Nacional de Desarrollo 2018-2022: Retos, estrategias y metas*
- *Plan de formación para sistemas productivos adaptados familiares*
- UNDP Strategic Plan 2018-2021
- *Plan Nacional de Adaptación*
- Annual Operational Plans
- Project Performance Report
- *Propuesta de recuperación de caños priorizados*
- *Resumen Ejecutivo “Análisis de variabilidad climática y evidencias de cambio climático para la región de La Mojana”*



Annex C – List of people met

Wilber Ramirez, Coordinador del proyecto

Jimena Puyana, Gerente de Desarrollo Sostenible PNUD

Francisco Charry, Director de Cambio Climático MADS y Director de Proyecto

Erika Cortes, Profesional Especializada en Planeación y Ordenamiento MADS y enlace de proyecto MADS - PNUD

Diego Rubio, Coordinador de Crecimiento Verde, Dirección de Ambiente y Desarrollo Sostenible de DNP

Guillermo Prieto, Coordinador del Grupo de Adaptación, Cambio Climático MADS

Wilson Ramírez, Coordinador del Programa Gestion Territorial, IAvH

Omar Vargas, Sub-Director de Hidrología, IDEAM

Yolanda González Hernández, Directora General, IDEAM

Rafael Espinosa, Profesional Especializado, Sub-Dirección Ambiental de CVS

Edibaldo Lans, Profesor, Universidad de Córdoba

Basilio Díaz, Profesor, Universidad de Córdoba

Martha Mogallón, Profesor, Universidad de Córdoba

Diana Diaz, Coordinadora del proyecto GCF

Jonathan Mendez, Profesor, Universidad Pontificia Bolivariana

Yanira Jimenez, Auxiliar Tecnica con Enfoque Rural, PNUD

8 mujeres beneficiarias del proyecto (5 de ellas pertenecientes a la asociación Mujeres Mojaneras Artesanales) en La Costera

14 miembros (6 mujeres y 8 hombres) de la Asociación de Pescadores, Agricultores y Protectores de Recursos Naturales (APAPI) en El Pital

Wendy López, Asistente Técnica en Biodiversidad, PNUD

12 miembros beneficiarios de proyecto (5 mujeres y 7 hombres) de la asociación ASOPASFU en Pasifueres

Roció Sánchez, Profesional Especializado en Hidrología, PNUD

Olga Pulido, Asistente Técnica en Hidrología, PNUD

María Londoño, Auxiliar Administrativa, PNUD

Karina Díaz, Profesional Especializado en Hidráulica, PNUD

Wendy López, Asistente Técnica en Biodiversidad, PNUD

Luis Monterrosa, Asistente Técnico en Producción Pecuaria, PNUD



Samara Vélez, Profesional Social, PNUD

Vladimir Sevilla, Asistente Técnico Agropecuario con Enfoque Rural, PNUD

Luis Durango, Conductor, PNUD

Mayerlin Sandoval, Comunicadora Social, CORPOMOJANA

Julio Madariaga, Ingeniero de Sistema, CORPOMOJANA

Kevin Pérez, Estadístico, CORPOMOJANA

Alcides Uparela, Profesional, CORPOMOJANA

Narses Villareal, Asesor de Ambiente, Departamento de Sucre.

Jaime de la Ossa, Rector, Universidad de Sucre

Juan Manuel Mercado, Profesor, Universidad de Sucre

Pedro Caraballo, Profesor, Universidad de Sucre

Juan Carlos Linares, Universidad de Córdoba

7 miembros beneficiarios de proyecto (3 mujeres y 4 hombres) de la comunidad de Seheve

12 miembros beneficiarios de proyecto (2 mujeres y 10 hombres) de la asociación ASOMATIAS de Mata de Caña

6 miembros beneficiarios de proyecto (2 mujeres y 4 hombres) de la asociación ASOPROPEGASE de Cecilia

6 miembros beneficiarios de proyecto (2 mujeres y 4 hombres) de la asociación ASOFASAN de Mancha, Venecia, Campanito y Monosolo

10 beneficiarios de proyecto (6 mujeres y 4 hombres) de la asociación ASOCANTOR de El Torno

Aníbal Pérez, Superintendente de Riesgos del Fondo de Adaptación de Colombia

Monserrat Xilotl, Especialista Técnica Regional del PNUD



Annex D – Mission itinerary

Monday, November 25 2019

Bogotá – UNDP Office

8:30 – 12:00 ⇒ meeting with Wilber Ramírez.

15:30 – 16:20 ⇒ kick-off meeting with Francisco Charry, Jimena Puyana, Erika Cortes y Wilber Ramirez.

16:30 – 16:50 ⇒ meeting with Erika Cortés.

Tuesday, November 26 2019

Bogotá – DNP Office

14:00 – 15:10 ⇒ meeting Diego Rubio.

Wednesday, November 27 2019

Bogotá – MADS Office

9:20 – 11:40 ⇒ meeting with Guillermo Prieto.

12:00 – 12:35 ⇒ meeting with Erika Cortés.

Thursday, November 28 2019

Bogotá – IAvH Office

9:00 – 10:00 ⇒ meeting with Wilson Ramírez.

Bogotá – IDEAM Office

11:30 – 12:20 ⇒ meeting with Omar Vargas.

15:10 – 16:30 ⇒ meeting with Yolanda González Hernández

Flight from Bogotá to Montería

Friday, November 29 2019

Montería – CVS Office

8:00 – 9:00 ⇒ meeting with Rafael Espinosa.

Montería – Universidad de Córdoba, Departamento de Química, Laboratorio de Aguas

10:00 – 11:00 ⇒ meeting with Edinaldo Lans, Basilio Díaz, and Martha Mogallón.

Montería – UNDP Office

15:30 – 16:40 ⇒ meeting with Diana Díaz.

16:40 – 17:45 ⇒ meeting with Jonathan Méndez.

Saturday, November 30 2019

All the activities of the day have been accompanied by Wilber Ramírez and Yanira Jiménez, who introduced the Evaluation Team to the communities before focus group discussions began. Wilber Ramírez and Yanira Jiménez have not participated in such discussions. The Evaluation Team has therefore had the opportunity to talk with Wilber Ramírez and Yanira Jiménez throughout the day, taking advantage of the displacements from one place to another.



La Costera – Handicraft workshop

9:30 – 10:30 ⇒ focus group discussion with 8 women (5 of them belonging to the *Asociación Mujeres Mojaneras Artesanales*)

10:30 – 11:30 ⇒ field visits to two family homegardens, to the sedes bank and to the community nursery.

El Pital

13:30 – 15:20 ⇒ focus group discussion with 14 members (6 women and 8 men) of the *Asociación de Pescadores, Agricultores y Protectores de Recursos Naturales (APAPI)*

15:20 – 16:00 ⇒ field visits to the rice mill and the community nursery.

Sunday, December 1 2019

All the activities of the day have been accompanied by Wilber Ramírez and Wendy López, who introduced the Evaluation Team to the communities before focus group discussions began. Wilber Ramírez and Wendy López have not participated in such discussions. The Evaluation Team has therefore had the opportunity to talk with Wilber Ramírez and Wendy López throughout the day, taking advantage of the displacements from one place to another.

Pasifueres

9:00 – 10:15 ⇒ focus group discussion with 12 members (5 women and 7 men) of the *asociación ASOPASFU*

10:15 – 12:00 ⇒ field visits to two adapted houses, a *caño* rehabilitated a hectare of restored wood, a water treatment family system, homegardens.

Monday, December 2 2019

San Marco – UNDP Office

8:00 – 11:40 ⇒ meeting with el Proyect Team: Rocío Sánchez, Olga Pulido, María Londoño, Karina Díaz, Wendy López, Wilber Ramírez, Luis Monterrosa, Samara Vélez, Vladimir Sevilla, Luis Durango

San Marco – UNDP Office

14:00 – 14:20 ⇒ interview to Antonio Madera, proyect beneficiary belonging to El Torno community.

San Marco – Forecast Centre in CORPOMOJANA

15:40 – 16:20 ⇒ meeting with Mayerlin Sandoval, Julio Madariaga y Kevin Pérez

San Marco – Forecast Centre in CORPOMOJANA

16:20 – 17:20 ⇒ interview to Alcides Uparela

Tuesday, December 3 2019

San Marco – Office of CORPOMOJANA

8:40 – 9:10 ⇒ entrevista telefónica a Narses Villareal

Sincelejo – University of Sucre

10:40 – 11:15 ⇒ meeting with Jaime de la Ossa y Juan Manuel Mercado

11:30 – 12:40 ⇒ interview to Pedro Caraballo



Montería – University of Córdoba

16:10 – 17:150 ⇒ interview to a Juan Carlos Linares

Wednesday, 4 December 2020

Seheve

13:30 – 15:15 ⇒ focus group discussion with 7 community members (3 women and 4 men)

Thursday, December 5 2019

Mata de Caña

9:30 – 10:30 ⇒ focus group discussion with 12 community members (2 women and 10 men)

10:30 – 11:30 ⇒ field visit to the community nursery, to a parcel of restored riparian vegetation and to a homegarden

Cecilia

13:20 – 14:00 ⇒ focus group discussion with 6 community members (2 women and 4 men) belonging to the *asociación ASOPROPEGASE*

14:00 – 14:40 ⇒ field visits to the acuaculture ponds, a homegarden and a limnimetric station

Friday, December 6 2019

Mancha

9:00 – 10:00 ⇒ focus group discussion with 6 project beneficiaries (2 women and 4 men) belonging to the ASOFASAN of the communities of Mancha, Venecia, Campanito and Monosolo

10:00 – 10:30 ⇒ field visit to an agro-silvo-pastoral plot

El Torno

13:00 – 13:45 ⇒ grupo focal con 10 beneficiarios de proyecto (6 mujeres y 4 hombres) de la asociación ASOCANTOR

13:45 – 14:00 ⇒ visitas de campo a la casa piloto located in the community

Saturday, December 7 2019

San Marcos

7:30 – 9:00 ⇒ reunión de cierre de misión con Wilber Ramírez

Tuesday, December 10 2019

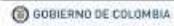
Bogotá – Office of Colombia Adaptation Fund

9:20 – 10:30 ⇒ meeting with Aníbal Pérez (International Evaluator in teleconference)

Thursday, December 19 2019

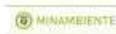
Teleconference

11:15 – 12:10 ⇒ meeting with Monserrat Xilotl



Annex E – Audit trail matrix

Chapter and section number	Page and paragraph number		Comments	Answer from the EVALuation Team	Action taken
Executive summary - Evaluation rating matrix	ii. Effectiveness		On what was evaluated? the 11 Prodoc communities or the 42 communities? Review component 1 report	The report of component 1 was reviewed and although it is mentioned there that the EWS has coverage in the 11 communities of the Kyoto project (not in the 42 of the GCF), the mission showed that there are communities that do not have access to information that is produced there. In some of the communities visited, there was an acknowledgment of the EWT and of the people in the communities that have access to the information, but not all of them disseminate or have access to it. In this sense, R10 suggests developing a massive communication strategy at different levels so that project interventions and actions effectively reach diverse audiences.	
			It is important to clarify that the modeling was carried out by the Colombia Adaptation Fund and that its contribution to the project is due to the institutional coordination effort carried out by the project.	Comment accepted	The Colombia Adaptation Fund was specified
			"This statement is not true. It would be necessary to	Comment accepted. The issue was conceptual not	The wording is modified: "The rehabilitation of the



			specify the reason for this statement. " The rehabilitation of the prioritized <i>caños</i> represents the most strategic achievement at the field level, since it was the activity that allowed the start of the other results 2, 3 and 4, also allowing capacity building.	so much temporary. The rehabilitation has led to a different vision of La Mojana.	prioritized <i>caños</i> represents one of the most strategic achievements at the terrain level, since based on the information obtained from the hydrodynamic modelling, the rehabilitation interventions have made it possible to demonstrate that the La Mojana ecosystem it works according to its own natural cycles of flooding and drought without this circumstance representing a threat to the populations settled in the territory ”.
Executive summary - Evaluation rating matrix	iii. Sustainability		"Likewise, the theoretical methodological approach changed the typical approach to pipe rehabilitation that has been applied in La Mojana for many years": I consider it important to mention why it contributed to conceiving a new way of doing <i>caños</i> rehabilitation, in which specifically it is evidenced the change?	This is a topic that is developed in various sections of the report regarding the paradigm shift regarding <i>caños</i> rehabilitation / restoration interventions in La Mojana. Details will not be expanded in the executive summary, but are developed in other sections	On pages 33 (section 3.5) and 36 (conclusions 4 and 12) the details are exposed
			"It cannot be established whether this strategy is deemed successful or not, since during the evaluation exercise, the Evaluation Team could not find any representative of the municipalities involved in the project": I think it is	Comment accepted	The wording is modified "It cannot be established whether this strategy is considered successful or not, since during the evaluation exercise, the Evaluation Team could not find any representative of the municipalities involved



			important to clarify that this it was not possible due to the transition of the local authorities		in the project due to the transition of local government teams ”.
Summary of conclusions	iv. C1		The word “sincronicidad” is not found in the RAE dictionary	Comment accepted	The wording is modified: "To this was added a favorable temporary situation that led to the actors involved articulating their shared interests to join and plan the actions and interventions at the different levels of project execution."
	iv. C2		The topic of how the project should move from extreme flooding scenarios to periods of drought was also mentioned. This is something worth pointing out as a flaw in the design of the project since, although it was mentioned, it did not delve as much into the topic as in the case of flood management. It is worth indicating it since the project managed to adapt in a spectacular way to cover this need very intelligently and within the framework of the project and also because it is something that was remedied with the GCF project	Comment accepted	The wording was changed: “C2: The project was well designed. Only two flaws in its design were identified. It was found that the proposed indicator to measure the scope of the project objective is not SMART (from the English acronym Specific, Measurable, Attainable, Relevant, Time Bound). Its formulation only indicates to poor households that they benefited generically from the project. However, its formulation did not add any type of information to be included in the indicators at the outcome level. Nor was it specified how, as beneficiaries of the project, they were able to improve their living conditions and reduce their vulnerability to climate



					change. Another point identified was that the original design only addressed flood scenarios, however, throughout its execution, the approach included drought scenarios, with which the project changed in a very adaptive and flexible way its approach to flooding. interventions according to the climatic and hydrological dynamics of the region. ”
	iv. C3		I consider that it is necessary to further develop this statement, specifying why this conclusion is reached	This is the summary of conclusions, for which only the general conclusion of the evaluation process is mentioned. However, throughout the document it is highlighted that the project governance scheme through the 3 committees was a relevant achievement (see section 3 / 3.1 / page 12 and 13; section 3.2 / page 26 and 28)	
	iv. C4		Review component 1 report		
	v. C6		This is in the case of the GCF, it is important to clarify the co-financing that Corpomojana put in and that now it is guaranteed to operate for 8 years with GCF and that IDEAM has taken strong technical leadership from the center	It is clear that the financing of the center is guaranteed in the short and medium term through the GCF project and the Corpomojana project with the Environmental Compensation Fund. However, the conclusion refers to the long-term strategy of corpomojana and IDEAM.	The wording is changed “At the time of evaluating the project, there is no clear identification of the official long-term financing strategy of the Forecast Center by IDEAM and CORPOMOJANA. However, the resources from the Environmental Compensation Fund and



				Although IDEAM and corpomojana have taken the lead, their sustainability strategy for the center was not identified, as they only mentioned the GCF project. As a synthesis of the conclusion it remains so, but it is developed in other sections of the report, especially in recommendation 3.	the GCF project are alternatives to guarantee its operation in the short and medium term ”
	v. C7		It would be more precise to say: There is evidence of a strengthening in the design and implementation of adaptation measures to the effects of climate change	Comment accepted	The wording changes: “There was evidence of a strengthening in the design and implementation of adaptation measures to the effects of climate change based on a solid scientific, participatory and community base that integrated the environmental, social and cultural characteristics of La Mojana. The awareness of being able to live taking advantage of the local natural resources in a sustainable way, was developed in each community visited during the evaluation mission ”
	v. C8		It would be necessary to specify why this is considered: The Grant mechanism promoted the scheme of participation, involvement and appropriation of the communities with the project	It is a conclusion. Throughout the document, the findings that lead to this conclusion are mentioned (section 3 / 3.3 / page 27, 29 and 30)	



	v. C12		What is the new paradigm? What was changed?	The wording was changed to better explain the idea. Findings supporting this conclusion are found in section 3 / 3.1 / page 13 and section 3.4 / page 33.	The new development scheme for La Mojana proposed by the project has been accepted by all the national actors found in the evaluation mission. However, this new scheme implies a paradigm shift with respect to the interventions previously carried out in the area, for which it was identified that among the actors at the regional level, there was not the same reception. The conventional paradigm that has been applied for years in La Mojana (based on the premise of the flood as a threat that must be mitigated with gray infrastructure), continues to have support at the corporate level. However, the professors of the regional universities are emerging as rigorous promoters of the change of the development paradigm in La Mojana
	v. C13		To what they make specific mention. If it is to the Paris agreement it is necessary to describe in more detail why it contributes to these commitments	It refers to the SISCLIMA agendas and the 2030 agenda (SDG 13, 14 and 15)	The wording is changed "The continuity of the project through the new project financed by the GCF is an opportunity to position the discourse of adaptation to climate change within the framework of compliance with the agendas of the



					National System of Climate Change SISCLIMA and 2030”
Summary of recommendations	vi. R2		With this affirmation it becomes more necessary that in previous paragraphs the new paradigm that the project contributed to define for the region is better described	It is the summary of recommendations, so no details are mentioned. The topic is developed in other sections of the report (section 3 / 3.1 / page 13 and, section 3.4 / page 33; and the extensive section of conclusions and recommendations).	
	vi. R3		This conclusion can be complicated for the GCF, because it would be distorting all the activities of component 3 of the GCF. I think it should be written in a more positive way	Nothing is distorted because throughout the report the achievements of all the components of the project are highlighted. In addition, in the other comments made by the review team to this recommendation, reference is made to the fact that this point is key, therefore it is not modified. The central point is to promote the formal delivery of the center so that he walks with his own estate. So we put a two-year limit. The center must be of corpomojana to be sustainable. You can't think of a project financing it for 8 years. The delivery plan involves a project effort to make that happen.	The wording is changed: “to establish an action plan to gradually deliver the Forecast Center to CORPOMOJANA that ends, maximum, in four years. Continuing to finance the Center with funds from the GCF project will imply a delay in its inclusion within the institutional priorities of the corporation. Guaranteeing the financing of the Center with funds from the GCF project will imply a delay in its inclusion within the institutional priorities of the Corporation and IDEAM ”
	vi. R9		Here it is not a direct contracting scheme, but rather a direct implementation. Contracting is an	Comment accepted	Wording changed: "maintain the direct implementation scheme with technical personnel in the GCF project."



			administrative procedure procedimiento administrativo		
2. Project description and background context /2.2 Problems the project sought to address	4. Paragraph 1		The source is the PRODOC Project document? If so, I consider it important to mention that this information was taken from there	It was taken from PRODOC and also by reviewing the final and PPR reports. Therefore, there is no specific reference.	
2.3 Main stakeholders	5. Paragraph 1		Incorporate corporations and unions into the list of the consultative committee	Comment accepted	The wording is changed: "For its part, the Consultative Committee integrated the regional universities (Pontificia Universidad Bolivariana, Universidad de Sucre and Universidad de Córdoba), representatives of the regional autonomous corporations (CORPOMOJANA AND CVS), of the planning and management committees municipal and departmental environmental, as well as representatives of social organizations in the communities of San Marcos, San Benito Abad, Ayapel, and unions such as FEDEARROZ "
	Key stakeholders table		Change ministry role	Comment accepted	The wording is changed: "Government counterpart for implementation. National project management, implementing partner and party responsible for coordinating the link with



					national and regional SINA institutions. ”
			IDEAM as part of the steering committee	Comment accepted	
			Colombia Adaptation Fund did not excute	Comment accepted	
			It is suggested to review some roles	This table was developed based on the information provided by the final reports of each component. Therefore that has already been reviewed. If there are any other errors (in addition to those previously corrected), please specify them specifically in the second round of review.	
			Include the monitoring of heavy metals resulting from the rehabilitation of pipes in the role of the university of Cordoba	Comment accepted	
			27 EWS: This is inconsistent with the comment that we did not reach all the communities, if they were 11 and we have 27	What is mentioned about the EWS is not that they have not been established, but that some communities are not aware of the information and the dissemination mechanisms. They are different things	
			On the role of WFP: Beware of this, it is necessary to specify that this was at the start of the project, while the agroecosystems were established	Comment accepted	The wording was modified: "Support for the delivery of food for work in community gardens during the start of the project prior to the establishment of agroecosystems"
3. Findings/3.1 Relevance	11. Paragraph 3		I think that reference should also be made to the	Comment accepted	The wording was modified: The project was also



			PND of the period in which the project was implemented (that is, the previous one)		aligned with the 2014-2018 National Development Plan "Todos por un Nuevo país".
	12. Paragraph 3		I'm not sure about that, what do you mean?	A precision is made in the wording. This was communicated to us by IDEAM.	In fact, the project has contributed to the establishment of the IDEAM National Modeling Center (see section 3.2. "Effectiveness" for details), covering a real need at the country level in terms of generating information with a high technical level. This center has carried out, outside the framework of the project, hydrodynamic modeling of other areas of the Country, the modeling of La Mojana being the first of them.
	Paragraph 4		Wondering what participation mechanisms	Later on it is specified that the mechanisms are mentioned in section 3.3 efficiency	
			Request to expand the explanation on the hydroclimatic model	Comment accepted	The wording was changed: "It is important to highlight that hydroclimatic modeling facilitated the approach of national institutions to regions and communities around issues of adaptation to climate change and risk management, since it provided a solid technical base with detailed information, adequate and pertinent to plan all the actions of the project.
	Paragraph 5		What is meant by this	This statement is made from	



			statement, what was the evidence from the analysis to say that it was a pioneer for Latin America and served as a platform for implementation? Was it from the review of the documents or from the interviews that this finding was reached?	the interview with Wilson Ramírez, national expert and member of the Latin American ecological restoration network, the level of innovation and relevance of the restoration exercise that was carried out in La Mojana was ratified. Precisely for this reason, the recommendations suggest raising the level of analysis of the project results in the academic field of doctoral dissertations.	
3.2. Effectiveness Results Achievement Rating Matrix	14 Objective		The targets for this project indicator are very clear and if possible measure it with the information of the families benefited by each of the adaptation measures implemented by the project. The evaluation must review the information provided by the families and calculate this indicator.	It is mentioned that the indicator "number of households benefited by the project" does not measure what is formulated in the objective "Reduce the vulnerability of communities and ecosystems in the Depression Momposina region to the risks of floods and droughts associated with the climate change and variability." Counting the number of households without measuring how and how much the reduction of vulnerability measures does not provide any element to understand if the objective has been achieved. The comment cannot be accepted.	The text of the report has not been modified.
	14 Objective		The targets for this project indicator are very clear and if possible measure it with the information of the	La metas son claras. Siendo el monitoreo en fase de implementación, el equipo evaluador no ha podido	



			families benefited by each of the adaptation measures implemented by the project. The evaluation must review the information provided by the families and calculate this indicator.	calcular el indicador. Además, el ejercicio de evaluación no tenía entre sus tareas de hacer encuesta cuantitativa: el tiempo y los recursos no hubieran sido suficientes a tal fin. Por eso el comentario no puede ser aceptado.	
	14 Result 1		Check, if they are defined in the produc At the end of the project, at least two (2) automated hydrological stations, two (2) automatic climatological stations, and five (5) automatic pluviometric stations, some with satellite transmission function. The logical framework has clearly defined goals in this product	The media evaluation (2017) reports that there was no goal for the indicator. The misunderstanding arises from the fact that there were two logical frameworks (one in Word and one in Excel) we had understood that the one in Word format was correct.	The wording was changed: “- At the end of the project, at least two (2) automated hydrological stations, two (2) automatic climatological stations, and five (5) automatic pluviometric stations, some with satellite transmission function”.
	14 Result 1		The rating must be unified ...	Comment accepted	The wording was changed: “moderately satisfactory”
	15 Result 1		With this wording it is understood that the most damaging thing that could happen to CORPMOJANA is the entry into implementation of the GCF project in its component 3, we consider that it should be drafted in a better and more positive way	In our opinion, it is not harmful for Corpomojana to enter the GCF project. The point then leads to recommendation n. 3 so that there is no delay a delay in the inclusion of the same center within the institutional priorities of the corporation. In other words, inclusion in the GCF is a fact. The various project actors will be able to support the corporation in seeking solutions to make it	



				sustainable	
	16 Result 1		Where is everything that was done before, the bulletins years ago, the community committees? it's as if nothing had been done. We have to review the component 1 report very well because apparently that report is the evidence of everything stated here.	The information about the bulletins was given by the people who work at the center. The component 1 report does not provide much information in this regard. What the project did remains in the "project achievements" column. The reason for the rating is explained in the column "evaluation comment". So two critical elements are identified.	
	28 Paragraph 2		Hydrodynamic modeling is contemplated from the beginning of the project (product 1.1.) What happened is that the project only contemplated modeling for the three target municipalities, unlike the Colombia Adaptation Fund, which had plans to do hydrodynamic modeling for the 11 municipalities. which in technical terms was more favorable for the project, in front of the decision making and design of the adaptation measures. What the Steering Committee decided was to work with the modeling that the adaptation would do, and not to do one for the three municipalities, as the project initially requested, because that was how it was formulated.	This context is clear. The comment is accepted to link to the editorial change made in the previous paragraph	The wording is changed: "Given the new competences of the Adaptation Fund of Colombia, which among others contemplated modeling for the 11 municipalities of La Mojana (with greater scope), the Steering Committee decided to join forces and make decisions with the best information available . In the framework of this strategic collaboration, the hydrodynamic model was delivered in the second half of 2016 and therefore the implementation of adaptation actions and measures established in the framework of results 2 and 3 of the project was delayed. Therefore, in the Midterm Evaluation it was recommended to extend



					the execution period to 21 months and the formal request for extension before the donor established the end date of June 30, 2019
	29 Paragraph 1		Put in a footer what hydro-tango is and why the problems associated with its operation were so important.	Comment accepted	The footer was included “The Ituango hydroelectric project is currently the largest in the country (in terms of infrastructure) and is located on the Cauca River. During its construction phase, design and engineering failures were detected that caused two declarations of national emergency due to the possible overflow of the dam and the closing of the gates.”
	29 Bullet 1		This was never the justification for doing the GRANTS. The benefits of GRANTS were always seen as the mechanism that, in addition to facilitating the implementation of adaptation measures, strengthened the capacities of community associations for project management, and at the same time, it was an efficient form of execution, because we saved the resources of the intermediation that would have been generated by hiring companies through competitive processes.	This paragraph does not attempt to justify Grant's execution, but the comment is accepted.	The wording is changed: “The project collaborated with non-profit associations to work with the communities. This guaranteed a better approach and link with the communities (see details in 3.2. Effectiveness) and allowed, through the Grant mechanism, to maximize the execution of resources to facilitate the implementation of adaptation measures”



	29 Bullet 4		This needs to be explained in a better way, because it was not giving up, what was done was modifying the interventions in adaptive infrastructure, but the project did intervene in homes and educational institutions	Comment accepted	The wording is changed: "Additionally, the Adaptation Fund of Colombia included in its plans, the construction of adaptive infrastructure, housing and schools, and therefore, the project was able to modify said interventions without compromising its achievements"
	31 Paragraph 2		It is suggested to place an active participation. Since being a support to NIM project, the leadership was from the Ministry.	Comment accepted	The wording is changed: "The evaluation highlights that the active participation of UNDP for the administration and implementation of the project, ensured a high level of political independence that was evident in the smooth interaction between institutions at the national and regional levels"
3.4 Sustainability	31 Bullet 1		Specify in more detail what the type of interventions were like, because for a reader who does not know the project or the region, it is unclear what the Evaluation refers to.	Comment accepted	The wording changes: "At the same time, this type of approach de-constructed the typical <i>caños</i> rehabilitation approach that had been applied in La Mojana for many years (based on the paradigm of flooding as a threat, which provided for the construction of infrastructures such as dykes and pitchers) and that it had no effective result for the improvement



					of the living conditions of the communities. In fact, over the years some of these infrastructures have been destroyed, representing a loss of public investment ”
	33 Paragraph 1		Why not rice crops or fish ponds? We consider that this statement does not take into consideration the activities carried out with the most vulnerable population and that they do not have the economic capacity to have livestock and that for this reason they implement other types of measures.	This paragraph refers to the fact that there are communities that have more resources and capacities to replicate project experiences, such as agrosilvopastoral systems. In the previous paragraph, it is said that some have told us that they can save and others have told us that they are earning more. However, the comment is accepted.	The wording is changed: “The evaluation shows that agro-silvopastoral activities are those that, due to their own ability to generate substantial income, have the greatest probability of being maintained over the years and that they can be consolidated as productive techniques practiced by small and medium animal owners. Taking into account the interventions carried out with the most vulnerable populations (rice crops and fish ponds), the potential for replication in the medium and long term is also highlighted as long as the communities can access resources that allow them to acquire the necessary material. ”
	33 Paragraph 2		Do you refer to what type of institution? A local public entity? or National? The hydraulic functionality of the re-inhabited caños will be maintained by the communities themselves, in this way their sustainability is guaranteed.	This comment is relevant because for the sustainability of the rehabilitation model the role of corporations is fundamental. Although it is true that the caños that are already rehabilitated remain in the hands of the communities (to what extent will these	"Regional institution" was written



			The national government does have resources from the public budget for these activities	populations take care of them?), There are many pipes in the region that require this type of intervention. How do corporations incorporate this successful model when they are so resistant to it?	
			"There is a study that includes an analysis of the costs of hydraulic rehabilitation and an estimate of the costs that have been covered over the years to build conventional infrastructures, with the consequent loss of investments after the 2010/11 season": This study did the project? Or who did it? What is the purpose of including this paragraph here? highlight any conclusion of the study?	This study and its results were reported by Diego Rubio and Anibal Pérez. The study was done by Anibal. The objective of this paragraph is to mention that conventional interventions carry a high risk of loss of public resources and infrastructures, while the interventions proposed under the project are more cost-effective and more ambitious in terms of the benefits to the medium and long term for communities. The wording is adjusted, but the statement is maintained on the recommendation of Anibal and general appreciation of other project actors, including the communities.	The wording changes: "There is a study that compares the costs of hydraulic rehabilitation with respect to the investment costs to build conventional infrastructure, which shows significant losses that materialized after the 2010/11 season. In this context, the new approach to the development and management of wetlands, promoted by the project, which includes the involvement of communities, the sustainable valorization of ecosystem services, and the maintenance of "smart" infrastructures that do not compromise the operation of the system. mojonero (runoff and drainage), is the way to go to reduce the risk and vulnerability of communities to climate change.
	34 Paragraph 2		What entities make this comment and how did you come to this conclusion?	The interviewees from the corporations agreed in affirming that the focus of the project that they liked the	



				most was that of the agrovopastoral activities due to ittheir focus on high livestock productivity.	
Reccomendation	Página 41 Last paragraph		Nowhere in the document is it highlighted that CORPOMOJANA allocated more than 300 MILLION of its own resources to the operation of the Forecast Center. Currently, the forecast center is not operating solely with the financing of the GCF, much of it is the Corporation's own resources managed by them before the Environmental Compensation Fund.	That is mentioned in the table in section 2.3	