

# Scaling up climate resilient water management practices for vulnerable communities in La Mojana

## Environmental and Social Management Framework

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### EXECUTIVE SUMMARY

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This Environmental and Social Management Framework (ESMF) has been prepared in support of a project proposal for “*Scaling up climate resilient water management practices for vulnerable communities in La Mojana*” (the project) by the Government of Colombia (GoC) to the Green Climate Fund (GCF). As this project is supported by UNDP in its role as a GCF Accredited Entity, the project has been screened against UNDP’s Social and Environmental Standards Procedure and deemed a Moderate Risk (World Bank/International Finance Corporation Category B) project. As such, an ESMF has been prepared for the project. Chapter Five of the ESMF provides the Environmental and Social Management Plan for the project.

The project will target 405,625 people in an area of Colombia that highly vulnerable to climate change induced extreme events. The project will improve the resilience of eleven municipalities in La Mojana, through comprehensive water use management that accounts for human and agricultural use, improved water quality and re-establish natural water flow in the region to serve as a buffer to reduce the impacts of extreme events through restored ecosystem functions. This would allow help manage flood and drought threats and by reducing vulnerability of communities, people and their assets.

The project has the potential to cause moderate environmental and social impacts. These include impacts to water quality through sediment movement during wetland restoration and channel stream mechanical restoration. Noise and air quality may also be impacted during these works. There is also the potential for the release of mercury that has built up in sediment over time. Appropriate actions are proposed to deal with these issues including the development of site-specific erosion, drainage and sediment control plans that will be developed and implemented as a mitigation measure. The plans will include disposal plans for contaminated soil and silt removed during earthworks to restore wetlands, ensuring that the surrounding communities and environment are not adversely impacted by contaminants in the soil and silt. Minor impacts include increased waste. Measures to avoid this impact include the prefabrication of materials, including for example, the water tanks to reduce this risk of waste being generated.

The project does not require any land acquisition and/or resettlement.

The Zenú people, an indigenous group are known to live in La Mojana. As such, appropriate measures have been included in the separate Indigenous People’s Planning Framework.

The project has also developed a Grievance Redress Mechanism to deal with any complaints and issues that may arise as a result of the project. This Grievance Redress Mechanism complies with Colombian and UNDP Safeguard procedures.

Appropriate and relevant avoidance and mitigation options have been proposed in the ESMF, which if put in place, will significantly reduce the potential impacts of the project to an acceptable level. Moreover, the project will have significant environmental and social benefits that will be achieved more generally.

Budgeting for environmental interventions and the application of mitigation measures to enhance positive impacts for La Mojana is an investment in the future as it will reduce the environmental and social liability at local, regional and national levels. The end result of this budget will be that there will be clean air, clean water, productive soils, healthy livestock, knowledgeable communities and overall improvement in the quality of life of the population as an investment in the future of the municipalities, which if implemented properly, will be repaid many times over through reduced long-term operating costs of implementing the project.

# 1 INTRODUCTION

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1. This Environmental and Social Management Framework (ESMF) has been prepared in support of a project proposal for “Scaling up climate resilient water management practices for vulnerable communities in La Mojana” (the project) by the Government of Colombia (GoC) to the Green Climate Fund (GCF). As this project is supported by UNDP in its role as a GCF Accredited Entity, the project has been screened against UNDP’s Social and Environmental Standards Procedure and deemed a Moderate Risk (World Bank/International Finance Corporation Category B) project. As such, an ESMF has been prepared for the project. Chapter Five of the ESMF provides the Environmental and Social Management Plan for the project.

## 1.1 BACKGROUND

2. THE GoC with support from UNDP is formulating the project on adaptation to climate change impacts, for submission to the GCF. The project will improve the resilience of vulnerable communities to climate change impacts in La Mojana.
3. The region of La Mojana is a large floodplain located between the northern foothills of the Andes and the plains in the Caribbean region. La Mojana is comprised of eleven municipalities (Aichi, Ayapel, Caimito, Guaranda, Magangué, Majagual, Nechí, San Benito Abad, San Jacinto del Cauca, San Marcos) spread across four districts (Sucre, Bolivar, Cordoba and Antioquia) with a population of 405,625 people. La Mojana is characterised as a fluvial-deltaic overflow plain, which provides diverse ecosystems with multiple structures and functions, including wetland systems and interconnected marshes that act as a buffer system for the Magdalena, Cauca, and San Jorge Rivers, which flow from the Andean region.
4. Under the *Convention on Wetlands of International Importance* (RAMSAR Convention), most of La Mojana corresponds to wetlands that are shaped by a complex of pipes, rivers, marshes and zapales, which are part of the buffer zone known as depression Momposina ecosystems. As identified above, these ecosystems regulate the Magdalena, Cauca and San Jorge Rivers. Further discussion on the ecosystems is provided in this ESMF.
5. Thirty-seven percent of the territory in las Mojana is wetlands. Wetlands provide valuable ecosystem services particularly in relation to water management. In La Mojana community livelihoods are based on the services provided through the wetlands, these include natural flood protection, water and sediment purification and water supply as well as their economic value through agro-productive use (water for livestock and agriculture and fishing). Recent studies developed by the National Adaptation Fund (NAF) for the region identified fifty environmental services provided by the region’s wetland ecosystems, these include supply services (food, materials and minerals, plant resources, forest cover and fauna, etc.), regulation services (drains and treatment, reproduction, shelter, etc.) and cultural services (identity, leisure and learning). Supply services are the most important for the region as they provide 50% of total services provided to the population.

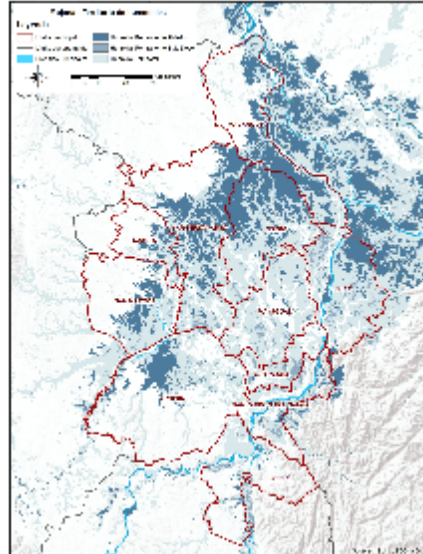
## 1.2 OVERVIEW OF THE PROJECT

6. The project will focus on the core region of La Mojana, consisting of the eleven municipalities within the plains bound on the east by the Cauca river, on the west by the San Jorge River and the Ayapel marsh, on the northeast by the Loba branch of the Magdalena river and on the south by the Ayapel Mountain Range (Figure 1).
7. The targeted interventions will affect an area of 1,089,200 hectares approximately in four departments (Bolivar, Sucre, Cordoba and Antioquia). More than 200,000 people will benefit directly from this intervention, which accounts for the entire rural population of La Mojana). This intervention is innovative in creating a disaster management solution that is based on enhancing resiliency through an environmental and adaptive approach to climate change that if successful will create a paradigm shift in the GoC’s approach to disaster risk management for the country as a whole.

a. Location of La Mojana in Colombia



b. Permanent (dark blue and blue) and temporary (light blue) wetland areas



c. Natural areas (green) and transformed areas (orange)

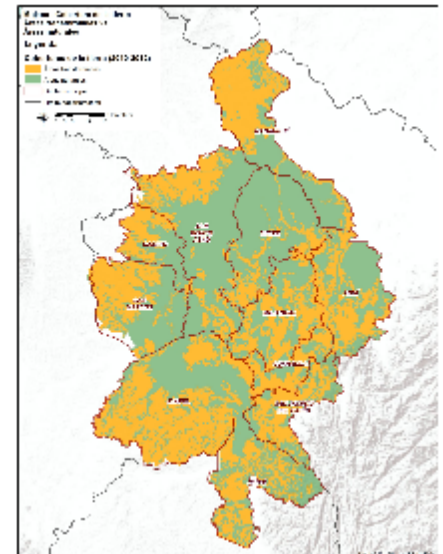


Figure 1 Location in Colombia and general characteristics of La Mojana region

### 1.2.1 Summary of Activities

8. The proposed project is split into four outputs with multiple activities under each output:
  - a. Output 1: Strengthened understanding and systemizing knowledge of the impacts of climate change on water management. Under Output 1, the project will pursue an integrated programmatic approach to flood and prolonged dry season management for the region through the preferred solutions identified in the La Mojana Action Plan. The activities includes:
    - (i) technical hydrological models and guidelines on the long term reliance of ground water solutions, a preferred solution based on the cost benefit analysis identified through the La Mojana Action Plan, including an analysis on aquifer dynamics to ensure sustainability as well as to ascertain water quality of surface and ground sources of water; and
    - (ii) development of a knowledge management bank and capacity building system that will be cross cutting throughout the Programme and will ensure the systemisation of knowledge for use as a planning tool not only in the region but also nationally.
  - b. Output 2: Improved water resources management by vulnerable households and communities. Under Output 2, the project will invest in flood resilient water infrastructure and wetland restoration as long term water supply and disaster risk management solutions to the region. These solutions aim to ensure sustainable and safe water access to La Mojana's most water vulnerable communities and be congruent to regional climate projections. The activities include:
    - (i) establishing immediate climate resilient water solutions in the form of household rainwater harvesting tanks to provide sustainable drinking water access for 120 days @ 40 litres/person/day to the rurally dispersed population that currently has no access to water infrastructure. The project will provide year round access to safe drinking water for the targeted population via the placement of 8,223 tanks (5,000 litres/tank on households) (32,892 people). Rooftops will be retrofitted or adapted to fit guttering etc. The average annual precipitation rate of 3,415 mm in the region;
    - (ii) long-term climate resilient water solutions, this being the development of an integrated water supply solution to target an additional 15,127 rural households of La Mojana (thus providing 100% coverage of the rural population) and provide year-long access to quality water sources. This activity is focused on ensuring that water supply meets the demand for drinking water in the rural populations of La Mojana. Through this solution 40L daily supply of drinking water per household will be made available during both the flood and dry seasons. The investment will include tanks for 3,782 households (four households in combination) that are within 50 meters of each other. Additionally, this will include the installation of 374 20,000L rain water

- harvesting tanks that will be installed in existing public infrastructure (churches, schools, health centres, hospitals, municipal buildings, community centres). The tanks will be communal in nature attending four households/tank. Each tank requires a minimum 55m<sup>2</sup> rooftop space which is available through existing public buildings in these areas;
- (iii) adapting existing water infrastructure solutions in the region, including repairing 113 existing mini aqueducts in rural water vulnerable areas in La Mojana (rural disperse communities with access to mini aqueducts). These aqueducts currently provide water to 63,840 people;
  - (iv) increasing the adaptive capacity of natural ecosystems and ecosystems-based livelihoods through the restoration of 41,532 ha of the wetlands and the mechanical restoration of 127 km of wetland channels, as well as to address a main underlying causes of wetland degradation: impact from livestock use and over grazing. Strategies to ensure community participation of wetland restoration as well as to compensate impact on their immediate incomes as a result of the restoration process are included;
  - (v) regaining the hydraulic connectivity of wetland channels that have been degraded by the reduction in precipitation and the occurrence of extreme events (floods and droughts), as well as by the construction of dams and roads will be undertaken. Hydraulic connectivity will be improved through the mechanical recovery of 127km of wetland channels, the reintroduction of vegetative material native to the channel, biodiversity optimisation in the river corridor; the creation and restoration of strips of riparian vegetation to control the entry of organic and inorganic substances, the use of floodplain ecosystems to increase the connectivity of the river flow, and the elimination of artificial obstacles in the river as well as the management of contaminated sediment;
  - (vi) establishing a wetland restoration and monitoring system which will include reforestation and the reintroduction of native species that are resilient to both flooding and climate change for the restoration of natural ecosystems. Approximately 100 community nurseries will be established and soil conditioning will be undertaken as necessary. Buffer areas will be established with natural and (temporary) physical fencing;
  - (vii) creating ecosystem compatible livelihoods through the restoration process as well as in identifying best practices in wetland management for agro-productive activity in keeping with the natural balance of the wetland, including management of community nurseries for plant supply for the reforestation activities;
  - (viii) identification of best practices in wetland areas through working with 2,000 people residing in the restoration areas to identify the economic opportunities and best agro-productive practices available to them that are compatible with long term wetland management. Special consideration will be given to the economic opportunities that are led by women (management of nurseries of native species, harvesting, etc.);
  - (ix) enhance women's leadership in ecosystem restoration by empowering 1,000 women who reside in the restoration targeted areas in order to enhance their role in the wetland ecosystem restoration and management. Training and targeting of the women will be done through the 35 existing women's associations in La Mojana, many of which have been active in establishing nurseries of native plant species for their restoration in the region; and
  - (x) developing a code of practice for cattle livestock along the wetlands. The code will include provisions for limited cattle access to wetland restoration areas; define minimum pasture cover, and grazing periods, among others. The code will be self-regulating and will be designed in consultation and through socialization with the 66 cattle associations in the region (such as FEDEGAN). Enforcement of the code will be through the cattle associations themselves who will generate social pressure for compliance to their members. This code of conduct will be useful tool to the Ministry of Agriculture and can be extended to other environmental fragile areas in Colombia or transform it into a formal normative action after lessons learned from this Programme have been institutionalized.
- c. Output 3 is the development of improved Early Warning Systems for Climate Resiliency in the La Mojana region. The activities under this output include:
- (i) development of an enhanced flood warning system by upscaling the current system for the whole La Mojana region to ensure real time data processing from the current stations, enhance data management capacities by integrating them in the national monitoring system

managed by IDEAM, implement effective standard operating procedures, integrate local with national information and create the early warning products/alerts in a manner that is relevant and actionable to the local population;

- (ii) development of an enhanced hydro-meteorological capacities through software and regional early warning alert system. This will include 20 hydro meteorological automatic weather stations (to expand coverage to all municipalities), 3 agro-meteorological stations that collect air and soil temperature, humidity atmospheric pressure, rainfall, wind speed and direction, solar radiation as per WMO recommendations as well as 12 water and 8 air quality monitoring stations. Investment will allow extending current observation network coverage to all 11 municipalities in La Mojana, collect information that is relevant for the agricultural activity as per WMO recommendations as well as provide information that will support health monitoring.
- d. Output 4 is focused on the promotion of agro-diverse and climate resilient crops for home consumption in La Mojana to address household vulnerability. A longer term agro-productive strategy to diversify crop production in the region and thus reduce its productive vulnerability to climate change will be included. The activities include:
- (i) conducting agroecosystems livelihood diversification research to support climate-resilient agriculture practices in the region. This will involve researching water efficient best practices for adapted agriculture, crop rotation and livestock production adapted to the region and their market impact. Investigation will also be made in the identification of local seed varieties that are resilient to flood and drought and that can provide alternative productive livelihoods for the region, technical information to develop technological packages for best practices will be recorded based on project implementation and systematized for their use in the region and used to project possible yields and income derived from their use. This work will ensure that local knowledge, particularly of indigenous groups, is collected and built upon;
  - (ii) The development of improved water resource management in household level food production systems. This activity will support the establishment of home gardens as sustainable household food systems to reduce household vulnerability during extreme events such as floods and prolonged dry periods. These gardens will not only address immediate household climate vulnerability but will also diversify food consumption in the region thus addressing region wide climate vulnerability. Through the use of water efficient practices such as the re use of grey water, households will be ensuring correct water management to address the water scarcity in the region. This activity builds upon an existing best practice implemented by the NAF through the KAF project which targeted 8,223 rural households in all eleven municipalities of La Mojana;
  - (iii) improving irrigation for household water conservation through the distribution of home garden preparation kit that includes a simple system to reuse household grey water (water tub for washing and a sediment filter), treated sediment from the wetland restoration activity to elevate the garden beds and provide plastic covering to make them resilient to floods, crop shading and mulching to prevent evaporation of water and the fitting of recycled hoses and sprinklers as irrigation pipework;
  - (iv) enabling crop diversification for climate change by establishing nurseries, fields and seedbanks for crop research of local seeds and varieties to their resilience for climate change and their suitability for home gardens. Research will be focused on collecting, testing, and systemizing best agricultural practices for home gardens including the creation of dry gardens (through mulching and drought resilient crops), implementing methods to address soil fertility through soil treatment or the planting of leguminous trees and other barriers that have been faced in various parts of the region; and
  - (v) improving rural extension for climate resilient adaptation and production by implementing an integrated technical assistance programmes for agro and livestock producers to implement climate resilient water management practices (rural extension). Extension services will include water supply practices, wetland restoration, agro-ecosystems and early warning systems as well as promoting and socializing the best practices and research for the diversification of agroecosystem.
9. These interventions include predominantly soft interventions although some include mechanical restorations works. Importantly, the project is designed on the implementation of interventions that will

have positive impacts through the development of programs that will increase livelihoods and providing valuable employment opportunities.

### 1.3 ENVIRONMENTAL AND SOCIAL RISK ASSESSMENT

10. As this project is supported by UNDP in its role as a GCF Accredited Entity, the project has been screened against UNDP’s Social and Environmental Standards Procedure. The Social and Environmental Screening Template was prepared and the project deemed to be a moderate risk (Category B) project. Discussions on the impact assessment are provided in the Social and Environmental Screening Template, which provided the rationale for the project being classified as a moderate risk. This ESMF provides further discussion below.
11. An impact risk assessment was undertaken using the UNDP Social and Environmental Screening Procedure to assess the probability (expected, highly likely, moderately likely, not likely) and the impact of the risk (critical, severe, moderate, minor, negligible). From this, a significance value was attributed to the potential impact (negligible, low, medium, high and extreme).

Score	Rating
5	Expected
4	Highly Likely
3	Moderately likely
2	Not Likely
1	Slight

Table 1 Rating of Probability of Risk

Score	Rating	Definition
5	Critical	Significant adverse impacts on human populations and/or environment. Adverse impacts high in magnitude and/or spatial extent (e.g. large geographic area, large number of people, transboundary impacts, cumulative impacts) and duration (e.g. long-term, permanent and/or irreversible); areas impacted include areas of high value and sensitivity (e.g. valuable ecosystems, critical habitats); adverse impacts to rights, lands, resources and territories of indigenous peoples; involve significant displacement or resettlement; generates significant quantities of greenhouse gas emissions; impacts may give rise to significant social conflict
4	Severe	Adverse impacts on people and/or environment of medium to large magnitude, spatial extent and duration more limited than critical (e.g. predictable, mostly temporary, reversible). The potential risk impacts of projects that may affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples are to be considered at a minimum potentially severe.
3	Moderate	Impacts of low magnitude, limited in scale (site-specific) and duration (temporary), can be avoided, managed and/or mitigated with relatively uncomplicated accepted measures
2	Minor	Very limited impacts in terms of magnitude (e.g. small affected area, very low number of people affected) and duration (short), may be easily avoided, managed, mitigated
1	Negligible	Negligible or no adverse impacts on communities, individuals, and/or environment

Table 2 Rating of Impact of Risk

<b>Impact</b>	5					
	4					
	3					
	2					
	1					
			1	2	3	4
<b>Probability</b>						
<b>Green = Low, Yellow = Moderate, Red = High</b>						

Table 3 UNDP Social and Environmental Screening Procedure Risk matrix

12. When undertaking the risk assessment, all activities were assessed, including, hard/soft infrastructure and livelihood interventions. Specific measures for each matter eg water; erosion, noise etc are discussed along mitigation measures later in this ESMF.

Activity	Unmitigated Impacts	Probability of Impact	Avoidance and Mitigation Measures	Probability and Impact post mitigation
Model Development and Technical Guidelines for the long term reliance of ground water solutions	The work undertaken for this activity will rely on both existing data and the collection of data from groundwater systems. The activity would involve the installation of equipment to collect data. As such, the study is unlikely to have any significant impact although there is the potential, albeit small to impact the environment or land during the installation of loggers. When collecting information, existing boreholes will be used. Where additional boreholes are required, these will be drilled in locations that can, if necessary be of benefit to the community. As such, the likely impacts will involve potential sediment inputs into groundwater ecosystems during drilling and the use of drilling grease.	Probability: 1 Impact: 1	Prior to installation, the project should undertake due diligence and ensure no land is being adversely affected and that the monitoring equipment is not placed in a sensitive location. All drilling should be undertaken during the dry season to reduce potential contamination of groundwater ecosystems with sediment. This work should comply with an Erosion, Drainage and Sediment Control Plan (EDSCP – a draft outline in Annexure Five). Biodegradable greases should be used so as not to contaminate groundwater.	Probability: 1 Impact: 1
Development of a knowledge management bank and capacity building system	This activity is essentially the collection of existing data into a central location. As such, there are unlikely to be any significant or even negligible impacts.	Probability: 1 Impact: 1	Ensure that there is full transparency in the information being obtained and access to this information.	Probability: 1 Impact: 1
Establishing immediate climate resilient water solutions in the form of household rainwater	The activity proposes to provide immediate rainwater harvesting tanks for the collection of potable water to the most vulnerable. There are a number of potential environmental and social impacts associated with this activity. With respect to environmental impacts, these include sediment loss when developing the	Probability: 2 Impact: 3	Prior to installing water tanks, the project should undertake an assessment of the specific needs of the proposed beneficiaries to ensure all those needing a tank are provided with one. Where there are beneficiaries that are not immediately provided a tank, access to the Grievance Redress Mechanism will be	Probability: 1 Impact: 2

Activity	Unmitigated Impacts	Probability of Impact	Avoidance and Mitigation Measures	Probability and Impact post mitigation
harvesting tanks	pads for construction, waste material if the tanks are not prefabricated, and the loss of land where the tanks may be located. Socially, given the need of the beneficiaries, there is the potential for conflict should not all of those that desperately need drinking water are provided with a rainwater tank.		necessary. Secondly, all works should be undertaken consistent with the EDSCP and specifically in the dry season to ensure there is no loss of sediment into water ways, thus reducing water quality. All the tanks and fittings should be prefabricated to reduce waste. All waste should be removed off site on installation. Users should comply with the Code of Environmental and Social Practice for the Rainwater Tanks as contained in Annexure Three of the ESMF.	
Adapting existing water infrastructure solutions in the region	The work undertaken for this activity will involve the installation of equipment and the rehabilitation of existing groundwater bores to access water. During works, there are potential environmental and social impacts, albeit small in nature. The impacts include contamination of groundwater with sediment (including sediment that might contain mercury) and the release of chemicals and grease during works. There is also the potential for the release of waste from equipment no longer required.	Probability: 2 Impact: 2	All works should be undertaken consistent with the EDSCP and specifically in the dry season to ensure there is less likely to be impacts from sediment. The project should develop an All drilling should be undertaken during the dry season to reduce potential contamination of groundwater ecosystems with sediment. Biodegradable greases should be used so as not to contaminate groundwater.	Probability: 1 Impact: 1
Development of an integrated water supply solution to target an additional 30,710 rural households of La	The activity proposes to provide rainwater harvesting tanks to supply potable drinking water to larger communities. There are a number of potential environmental and social impacts associated with this activity. With respect to environmental impacts, these include sediment loss when developing the pads for construction, waste material if the	Probability: 2 Impact: 4	Prior to installing water tanks, the project should undertake an assessment of the specific needs of the proposed beneficiaries. Where there are beneficiaries that are not immediately provided access to potable water, access to the Grievance Redress Mechanism will be necessary. Secondly, all works should be undertaken consistent with the EDSCP and	Probability: 2 Impact: 2

Activity	Unmitigated Impacts	Probability of Impact	Avoidance and Mitigation Measures	Probability and Impact post mitigation
Mojana	<p>tanks are not prefabricated, and the loss of land where the tanks may be located. There is also the potential for the release of contaminants during earth works. Socially, given the need of the beneficiaries, there is the potential for conflict should not all of those that need drinking water are provided with a rainwater tank. Further, there is the potential for individuals to take too much water/above their allocations, causing community conflict.</p>		<p>specifically in the dry season to ensure there is no loss of sediment into water ways, thus reducing water quality. All the tanks and fittings should be prefabricated to reduce waste. All waste should be removed off site on installation. Users should comply with the Code of Environmental and Social Practice for the Rainwater Tanks as contained in Annexure Three of the ESMF. This should include the development of a supply committee to ensure individuals are not able to take more water than they are allocated.</p>	
<p>Restoration of 41,532 ha of the wetlands and the mechanical restoration of 127 km of wetland channels</p>	<p>This activity will require wetland and channel works and potential road closures to access the river. It will involve the removal of sediment from these environments. This might also require the relocation of services.</p> <p>The activity will not impact on greenfield locations as the wetlands and channels are disturbed both natural and anthropogenic; however, these systems have archaeological heritage values.</p> <p>There are a number of potential impacts associated with the works including but not limited to the potential erosion and sediment movement during rainfall events and as a result of dust, all of which could have impacts on water quality, noise impacts from the use of trucks and excavators, the potential leakage of chemicals and oils, and other potential</p>	<p>Probability: 5 Impact: 3</p>	<p>The ESMP sets out appropriate mitigation measures for the impacts of the activity in wetlands and channels. The most appropriate mitigation measure is to ensure activities to do not occur during periods of rainfall which could significantly increase sediment discharges and erosion. All works should comply with the EDSCP (a draft outline is included in Annexure Five). Further, prior to any works, sediments should be tested for contamination. Where any sediment is found to contain mercury or other contaminants, work should stop and appropriate remediation should be undertaken to reduce the release of these metals etc into the environment. Any additional sediment should be made available to the community, including but not limited to home gardens. Specific contaminated soil/silt disposal management plans (CSDMP) should be</p>	<p>Probability: 4 Impact: 2</p>

Activity	Unmitigated Impacts	Probability of Impact	Avoidance and Mitigation Measures	Probability and Impact post mitigation
	<p>impacts. The construction activities could also result in changes to people’s ability to move within the region. Further, there is the potential for mercury to be released from soils being excavated that could then being available within the trophic cycle.</p>		<p>prepared for any contaminated soil and silt that might be removed during earthworks to restore wetlands to ensure that the surrounding communities and environment are not adversely impacted by contaminants in the soil and silt. All areas should be revegetated as soon as possible to reduce erosion and sediment loss.</p> <p>With proper planning and consultation with the community, and in particular indigenous peoples, there is less likely to be an impact to archaeological and cultural heritage in the form of the channels.</p>	
<p>Establishing a wetland restoration and monitoring system</p>	<p>This activity will involve undertaking replanting and other livelihood interventions around wetland ecosystems. It will not require any acquisition or resettlement.</p> <p>Previous work by NAF as highlighted the significant environmental and social benefits of these activities. However there is the potential, if not properly conducted to have both environmental and social impacts.</p> <p>Environmentally, the impacts include the potential erosion and sediment movement during rainfall events and as a result of dust, all of which could have impacts on water quality, noise impacts from the use of any machinery, the potential leakage of chemicals and fertilisers, and other potential impacts.</p>	<p>Probability: 2 Impact: 2</p>	<p>If the appropriate mitigation measures as identified in the ESMF including the EDSCP; and CSDMP are prepared and implemented, and the development of a Livelihood Restoration Plan, then the impacts should be significantly mitigated. Full training should be provided to those undertaking the rehabilitation and monitoring. All rehabilitation and monitoring should be undertaken consistent with good international industry practice.</p>	<p>Probability: 2 Impact: 1</p>

Activity	Unmitigated Impacts	Probability of Impact	Avoidance and Mitigation Measures	Probability and Impact post mitigation
	<p>Social, the activity could result in changes to livelihoods through the removal of access to wetlands and the normal day to day activities. It is critical that due diligence be properly undertaken prior to the undertaking the activity including the development of a Livelihood Plan where it may be necessary to have people adapt their lives to removal from wetlands etc.</p>			
Creating ecosystem compatible livelihoods	<p>This activity will involve the creation of jobs for the local community. There are unlikely to be any environmental impacts associated with the activity, on the main, the impacts of the project will be beneficial.</p> <p>There is the potential for social impacts. These include loss of livelihoods from previous activities that may have been undertaken in wetland environments. There is the potential based on this for beneficiaries to compete for access to resources which create conflict.</p>	<p>Probability: 2 Impact: 2</p>	<p>Prior to the activity, consultations should be undertaken with those that are likely to be impacted to understand their full requirements. Training should be provided in alternatively livelihoods as well as other support as necessary. It will be important to prepare appropriate mechanisms to ensure conflict does not arise consistent with the ESMF.</p>	<p>Probability: 1 Impact: 2</p>
Enhance women's leadership in ecosystem restoration	<p>This activity will involve increasing women's involvement in numerous activities proposed under the project. Women play a decisive role in agricultural labors and food safety and possess important knowledge about sustainable use of soils, water, seeds and other matters; nevertheless, women have less access than men to loans, training and land.</p> <p>The main impacts associated with this activity could be the reluctance of men to allow women</p>	<p>Probability: 2 Impact: 2</p>	<p>Prior to the activity being carried out, the project should ensure equitable participation of men and women in wetlands restoration processes. Further, the project should ensure it undertakes an assessment of sex-disaggregated data and the gender analysis in the wetlands restoration process. Further, the project should ensure women's participation in identifying best practices in wetland management for agro-productive activities and</p>	<p>Probability: 2 Impact: 1</p>

Activity	Unmitigated Impacts	Probability of Impact	Avoidance and Mitigation Measures	Probability and Impact post mitigation
	into more leadership roles as well		stimulate non-traditional occupations through cash for restoration work programme. This should also include undertaking an assessment of the involvement of women within in cattle-farming, prior to planning measures.	
Developing a code of practice for cattle livestock	This activity is two-fold, the preparation of the code based on desktop work and the consultation with stakeholders including user groups to ensure that the Code is developed effectively. The likely impacts of this are that stakeholders are not effectively engaged during the consultation process and/or do not provide information necessary for the Code to be effective once implemented.	Probability: 2 Impact: 2	To ensure the work is effective, there should be extensive consultation and ongoing. Further, there should be consultation on the Table of Contents, draft Code and final Code.	Probability: 1 Impact: 2
Development of improved water resource management in household level food production systems	<p>Many extremely poor and vulnerable people in La Mojana do not have access to water for the purposes of drinking and secondly, for food production. This activity will provide improved water resource management solutions at the household level. Much of the work will be desktop but specific trials are required.</p> <p>There are a number of environmental and social impacts associated with the activity. One is the overuse of water which would result in impacts on water quality and sediment loss. Secondly, there is the potential to use water that is contaminated with mercury.</p> <p>The social impacts include non-inclusion in the</p>	Probability: 2 Impact: 3	<p>To avoid the impacts, the improved water resource management solutions should be run in small scale projects to test its success before being scaled up across different regions. The lessons learnt from other NAF projects in the region are critical to its success.</p> <p>When developing the improved water resource management solutions, consultations should be undertaken with community to understand their needs. By doing this, it is highly likely that this will result in a solution that is owned by stakeholders and therefore will be taken up in use.</p>	Probability: 2 Impact: 2

Activity	Unmitigated Impacts	Probability of Impact	Avoidance and Mitigation Measures	Probability and Impact post mitigation
Conducting agroecosystems livelihood diversification research	<p>development of the system, where people from different municipalities are not considered. Further, there is the potential for exclusion in being provided assistance.</p> <p>This activity would involve researching water efficient best practices for adapted agriculture, crop rotation and livestock production adapted to the region and their market impact.</p> <p>There are a number of potential impacts associated with the activity. Firstly, it is critical to ensure that there is no genetic modified species brought into this vulnerable environment. Secondly, it is assumed that the activity would rely heavily on gaining knowledge from local producers including indigenous peoples to understand what adaptations crops need to have to be climate resilient. The project would need to be undertaken in controlled environments, otherwise there is the potential for unwanted release of specimens. Without being undertaken in a controlled environment using local provenance, there is the potential for specimens to be released into ecosystems which could have significant impacts on a small scale in the short term.</p>	<p>Probability: 2 Impact: 3</p>	<p>A controlled research environment is critical to avoid uncontrolled releases of specimens. All trials should be ethics approved. Further, full community consultation on their needs should be undertaken to ensure crops produced are as per the requirement of growers</p>	<p>Probability: 1 Impact: 2</p>
Development of an enhanced flood warning	<p>The main impacts associated with this activity are the installation of equipment to collect data and then the dissemination of that information</p>	<p>Probability: 2 Impact: 1</p>	<p>Given the nature of the activity, the main avoidance and mitigation options are compliance with the EDSCP and CSDMP (a</p>	<p>Probability: 1 Impact: 1</p>

Activity	Unmitigated Impacts	Probability of Impact	Avoidance and Mitigation Measures	Probability and Impact post mitigation
system by upscaling the current system for the whole La Mojana region	in real time as needed. As such, the activity is unlikely to have any significant impact although there is the potential, albeit small to impact the environment or land during the installation of loggers.		draft outline is included in Annexure Five) and ensuring that all loggers are placed on Government land.	
Development of an enhanced hydro-meteorological capacities through software and regional early warning alert system	The main impacts associated with this activity are the installation of equipment to collect data and then the dissemination of that information in real time as needed. As such, the activity is unlikely to have any significant impact although there is the potential, albeit small to impact the environment or land during the installation of loggers.	Probability: 2 Impact: 1	Given the nature of the activity, the main avoidance and mitigation options are compliance with the EDSCP and CSDMP (a draft outline is included in Annexure Five) and ensuring that all loggers are placed on Government land.	Probability: 1 Impact: 1
Improving irrigation for household water conservation through the distribution of home garden preparation kit	<p>Many extremely poor and vulnerable people in La Mojana do not have access to water for the purposes of drinking and secondly, for food production. This activity will provide beneficiaries with access to irrigation and other infrastructure to ensure adequate technology for growing food.</p> <p>There are a number of environmental and social impacts associated with the activity. One is the overuse of water although this will be limited by the types of irrigation proposed. Secondly, there is the potential to use water that is contaminated with mercury.</p> <p>The social impacts include non-inclusion due</p>	Probability: 2 Impact: 2	<p>The lessons learnt from other NAF projects in the region are critical to its success. The mitigation measures included in that project along with those contained in the ESMF will mitigate environmental impacts. It is also critical that if sediment is provided to communities to develop home gardens, that this sediment be checked re contaminants.</p> <p>Based on the NAF, consultations should be undertaken with stakeholders to understand their needs with respect to the types of crops they wish to grown. This will have impacts on the types of irrigation technologies. Information from the below activity will be important in ensure the avoidance of impacts.</p>	Probability: 1 Impact: 1

Activity	Unmitigated Impacts	Probability of Impact	Avoidance and Mitigation Measures	Probability and Impact post mitigation
	to funding that could create conflict.			
Enabling crop diversification for climate change by establishing nurseries, fields and seedbanks	<p>This activity would work with the activities in Output 1 involving research on adapted agriculture and crop rotation adapted to the region.</p> <p>There are a number of potential impacts associated with the activity. Firstly, the release of untested crops and seeds into nurseries and seedbanks, and then subsequently into production could have significant impacts on the environment. Second, the overuse of chemicals etc in the nurseries could have an impact on the environment including to water quality.</p> <p>With respect to social issue, there is the potential for growers to no use new seeds. Secondly, the new seeds may not be complimentary to their existing crops which could result in disease or pest infestation.</p>	Probability: 2 Impact: 3	<p>No genetic modified species should be used. Only seeds and crops from local provenance should be used in nurseries. Seeds should only be collected from local producers including indigenous peoples and properly labelled and stored in a controlled environment. Preference should be given to seeds with a lower need for chemicals etc.</p> <p>Extensive consultation should be undertaken with producers to understand their likely needs re seeds etc and their uses. This will ensure that specific seeds do not have a supply and demand issue. Finally, it is imperative that all producers have access to the seed banks and nurseries to ensure conflict is minimised.</p>	Probability: 1 Impact: 2
Improving rural extension for climate resilient adaptation and production	<p>Extension is critical to the success of the Output. There are a number of potential impacts through extension. These include the failure to understand the needs of producers which results in incorrect information being provided. This can have both environmental and social impacts. Secondly, there is the potential for the users to not understand what is being said and/or provided to them in the</p>	Probability: 3 Impact: 1	<p>It is critical that all information is presented in a form that is easily understood by all parties. Whether this is in written, spoken or visual forms. Shed meetings/producer forums should be regularly conducted so as the extension is reaching the community and moreover, those providing the extension understand the needs of the community. All extension should focus on less water and chemical use, thus reducing</p>	Probability: 2 Impact: 1

Activity	Unmitigated Impacts	Probability of Impact	Avoidance and Mitigation Measures	Probability and Impact post mitigation
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form of information. Third, there is the potential that information is not updated as needed.

impacts on the environment.

### 1.3.1 Assumptions Underpinning the Development of the Environmental and Social Management Framework

13. The following assumptions have been made in the preparation of this ESMF:
- a. none of the interventions will require the displacement of people;
  - b. the rainwater harvesting tanks will be installed at brownfield locations where vegetation has already been removed;
  - c. the installation of the rainwater harvesting tanks will be undertaken during the dry season to reduce erosional impacts;
  - d. where practicable, materials will be pre-fabricated to reduce waste;
  - e. all filters and other items used in the sterilization and purification of groundwater will be stored in a safe place to remove the chance of releasing chemicals into both surface and groundwater;
  - f. all material removed from the works in the channels will be remediated as necessary with no impact on the environment;
  - g. all material removed from the works in the channels will, once remediated, be made available for the home gardens and/or placed back for use in agricultural systems;
  - h. there will be full compliance with the EDSCP and CSDMP;
  - i. none of the interventions will be conducted in protected areas or sensitive locations;
  - j. indigenous peoples are fully accepting of the project;
  - k. appropriate erosion and sediment control will be undertaken during all stages of the projects; and
  - l. there will be no release of pollution and/or chemicals as a result of the projects.

### 1.3.2 Purpose and Objectives of the Environmental and Social Management Framework

14. An EMSF is a management tool used to assist in minimising the impact to the environment and socially; and reach a set of environmental and social objectives. To ensure the environmental and social objectives of the projects are met, this EMSF will be used by the project implementers to structure and control the environmental management safeguards that are required to avoid or mitigate adverse effects on the environment.
15. The environmental and social objectives of the projects are to:
- a. improve the water supply in the targeted areas and introduce water conservation measures;
  - b. provide an early warning system that ensures adequate measures are undertaken prior to any event;
  - c. encourage good management practices through planning, commitment and continuous improvement of environmental practices and the impacts of climate change;
  - d. minimise or prevent the pollution of land, air and water pollution;
  - e. protect native flora, fauna and important ecosystems including wetland and marsh areas;
  - f. comply with applicable laws, regulations and standards for the protection of the environment;
  - g. adopt the best practicable means available to prevent or minimise environmental impact;
  - h. describe monitoring procedures required to identify impacts on the environment; and
  - i. provide an overview of the obligations of NAF and UNDP staff and contractors in regard to environmental obligations.
16. The EMSF will be updated from time to time by the implementing Project Management Unit (PMU)/contractor in consultation with the UNDP staff and NAF to incorporate changes in the detailed design phase of the projects.

### 1.3.3 Land Issues

17. Many of the project activities will be undertaken on Government land including wetland restoration and the clearance of the canals.
18. Automatic hydromet equipment will only be installed on Government lands as has been the general practice in the country in the past. Therefore, the project will not infringe any land rights issues derived from this activity. The process of installation of new hydrological or meteorological stations follows four main steps:
  - a. Selection of location of the monitoring equipment: this selection is associated to (i) hydro-climatological information gain (entropy), (ii) security and maintenance and (iii) technical aspects. In this respect, stations are typically located in areas where there is a low coverage of stations, in easy-to-access public land and with no interference. Hydrological stations are located within the buffer area of the streams/river in areas not prone to flooding. In general, buffer areas of the river are public land. Climatological stations are either located in the same places or in public buildings where access and security are ensured;
  - b. Permission request and approval: regional authority will grant permission to locate hydro-climatological stations within the buffer areas of the rivers and streams (occupation of riverbeds permission). Typically, this process takes 4 to 12 weeks;
  - c. Civil works and adjustments: in most of the cases, new stations require the construction of infrastructure to ensure the adequate operation of the equipment; and
  - d. Installation, calibration, testing and setup: this stage includes the installation of electronic devices and complementary systems. Also, configuration of these devices is required so that they can communicate with other stations and transmit data in real time. Calibration of data loggers and sensors is also performed in this stage. Finally, a working station is delivered to IDEAM connected to the integrated national system together with all the software and hardware technical specifications.
19. The location of the household water tanks will follow the successful procedure from the MADS-AF project. No infrastructure will be located on private property without the express approval of any land holder. No compensation will be paid to any land holder. Where agreement without compensation cannot be agreed upon, no work will be undertaken.
20. The selection of specific sites will be based on a climate vulnerability analysis (though prioritization) that includes interviews with the potential beneficiaries. In the case of home gardens, the analysis includes documentation of livelihoods and climate vulnerability, household food productive capacity, soil quality and cover, capacity to plant diverse crops etc. Access to water will be a factor in determining sites. Once the families/households have been prioritized, a community assembly (already existing) will be held in which the equipment will be granted. Rural capacity promoters will also be invited to ensure that each household is aware of the capacity building team that will be available to help in the successful installation of the equipment.
21. At the community assemblies, an introduction will be provided on the implementation process; and the operation and maintenance of the infrastructure. Households that receive the equipment will be required to verbally agree to attend capacity building activities, and this will be recorded within the community assembly meeting minutes. An agreement will be entered into during the community assembly with each recipient household (see an example existing agreement from the MADS-AF Project). The agreement includes their commitment to care for the equipment and attend capacity building activities. Rural promoters/extension workers follow up directly with the targeted households.
22. With respect to the household gardens and household water tanks, their use is for the benefit of the household itself. Therefore, as stated above, no compensation other than the service that is provided by the equipment and the capacity building that is delivered will be provided nor needed. In the case that a household decides not to want to receive the equipment, then no equipment will be provided. In the case of community household water tanks, a similar process will be developed, that also includes a commitment from all household beneficiaries. Rural extension services will also go into formalizing these community agreements (from larger water tanks) into water boards.
23. With respect to the wetland restoration, property in Colombia is categorized in three structures: owners, possessor and lessee. According to a 2014 predial (land tenure registry) and land tenure diagnoses developed by NAF, approximately 27% are owners in La Mojana and the rest is associated with

possessor and lessee. In the case of land tenure of the wetlands, tenure is mixed including those with the channel access and the channels themselves being government owned and some that is held under private ownership.

24. The project will follow the practice that has been employed successfully by the MADS-AF project. This includes having rural promoters working with the land owners themselves to understand the importance of the wetland areas due to the ecosystem services that they provide. In addition, their strategic role due to the location of their land is communicated in order to inform them correct wetland management practices as well as its value in terms of water sources, better land cover, as well as protection of the micro climate. The owner is then in turn convinced of the value of the work and the project works with them to identify the restoration areas within their properties, these are usually in areas that have not been used for agriculture and livestock management. These areas are then fenced off for a period of 2 years. In those areas, and on the basis of the wetland restoration plan, fruit trees are included to provide value for the owner and for the community. Before restoration action is undertaken an agreement is signed with the private land owner. In the case that the private land owner does not want to participate, then no action is taken other than identifying viable alternative areas.

### 1.3.4 Economic Displacement and Livelihood Restoration

25. No economic displacement, either temporary or permanent, is expected during the implementation of the project. In terms of wetland restoration, a productive landscape management approach will be followed to ensure that all the project activities are planned and then implemented to include restoration of all community activities within specific areas as per a community agreement. While areas may result in limited access being available eg an area might be fenced off (during approximately 2 years), this will only be undertaken based on full consensual agreement with the community members who will be undertaking the restoration process. Importantly, these areas are a small part of the whole project area.
26. This approach will be complimented with other project activities including the development of agriculture packages, capacity building and training that incorporate adaptive productive practices which are compatible with correct wetland management and provide economic returns. The methodology applied for the implementation of the restoration actions in the existing La Mojana (MADS-AF project) will be followed.
27. Given the project activities, it is unlikely that livelihood restoration will be required. This assumption has been made based on current experiences and best practices developed during the implementation of MADS-AF Project. This included a productive management restoration approach for the wetlands designed with the Institute von Humboldt, which prized ecosystem services recuperation and direct stakeholder involvement through an extensive socio-economic characterization that was incorporated within the restoration plan itself. This characterization, which will be developed for each wetland restoration plan in the project, precisely served as a measure to avoid any form of economic displacement. This will be further ensured through the productive landscape management process that will accompany the restoration work that will ensure a correct planning, adaptation and governance of the wetland areas without interrupting economic activities. Notwithstanding this, a livelihoods restoration plan will be considered within the first six months of project implementation.
28. The current restoration approach designed by the Institute von Humboldt followed the development of restoration plans based on restoring ecosystem services and capacities. This approach will also guide the restoration process that will be held through the project, particularly in the social and economic initial characterisation of the restoration areas. Restoration activities, in this sense follow the below detailed activities (characterisation, establishment of restoration practices, monitoring and actions that include and provide follow up to the social actors):
  - a. Inclusion of stakeholders (social actors). A characterization is made to identify all social aspects involved in the degradation and recuperation of the ecosystem. They are included within the whole planning process. Stakeholders are involved in the definition of the restoration objectives (short, medium and long term), the prioritization of restoration areas, the design and establishment of ecological restoration works, in the decision making governance process, including the definition of roles and responsibilities not only in the restoration itself but also in its care and management. This has allowed for a mindset change of the stakeholders at a community level and provides a sense of co-responsibility in wetland management. It also ensures that all stakeholders are involved and agree to the restoration actions and that economic displacement is avoided;
  - b. Biophysical and Socioeconomic diagnostic. This includes the zonification, cartography, identification, characterization and prioritization of degraded areas, the identification and

characterisation of potential ecosystems, the establishment of the restoration objectives in terms of the desired impact on the ecosystem (based on service recuperation) an analysis of the limiting factors and potential sources of tension. In the case of the current proposed project an economic and livelihood characterization will be made to ensure that a productive landscape management approach (which will include agriculture, fishing, livestock that includes silvopastoral management and other rural practices taking place in the territory) is taken so that sources of livelihoods are not interrupted but improved. This allows for the restoration process to be organized accordingly while identifying the components (services) within the ecosystem that are most degraded as well as identifying the social perception of the work. It also allows for the identification of the weaknesses, strengths, opportunities and threats to the restored area and the project development. This diagnosis also works to ensure that economic displacement is avoided by ensuring that livelihoods are not interrupted but managed (enhanced productive techniques, landscape management agreements) in a matter that does not displace economic activities; and

- c. Establishment of restoration practices. This is based on the application and implementation of methods and strategies that are deemed most appropriate based on the diagnosis and the desired productive landscape management approach. The plan incorporates and finds solutions to mitigate any sources of tension that could limit the restoration actions including addressing the ecosystem needs most valued by the communities through the restoration itself or enhanced productive practices.

### 1.3.5 Indigenous Peoples

29. As part of due diligence, an analysis and consultations were undertaken as to the probability of any of the project's activities involving indigenous people and/or ethnic minorities.
30. The descendants of the Zenú people mainly inhabit the indigenous reservations in San Andrés de Sotavento in Córdoba Department, and El Volao in Urabá. They also live in several small settlements in Sucre, Antioquia, and Chocó. The Zenú people are most numerous in Córdoba Department – especially the San Andrés de Sotavento reservation, in the municipal capital of Tolú Viejo and 19 smaller indigenous councils scattered across Sucre and Córdoba Departments. This dispersion is a result of the loss of lands caused by the expansion and consolidation of the cattle-farming industry and the pressure of the armed conflict.
31. The latest census carried out in Colombia by DANE in 2005, reported 233,052 self-identifying members of the Zenú people, of whom 51.6% (120,181) are male and 48.4% (112,871) are female. The majority of the Zenú people, 61.6% of the population (143,457 people) are in Córdoba Department, followed by Sucre with 34.7% (80,830) and Antioquia with 2.8% (6,594). 99.1% of the Zenú live in these three departments.
32. Extensive consultation has been undertaken with the Zenu indigenous people. The consultation was undertaken consistent with FPICs, and in compliance with the National Indigenous Organization in Colombia. The consultations led to the identification of the main indigenous communities who were invited, based on FPIC, to consultations to inform them of the project design, objectives, locations and interventions. During the meeting, minutes were taken and participants were asked to provide written and/or verbal feedback to ensure that the project responded to their needs and concerns. All feedback was included within the project design and is reflected in various project activities. The consultations and project design has been documented through letters from indigenous community leaders to ensure their approval of the project. For specific information on this process please refer to the consolidated Indigenous Peoples Planning Framework, which details this process on page 26 and includes in the annexes the referred to documents.
33. UNDP is currently implementing the MADS-AF Project. The Project has been working in La Mojana during project implementation, during which the inclusion of the Indigenous community and the capacity to address their needs and concerns has resulted in its successful implementation. Based on this, the project has undertaken full inclusion of the Zenu indigenous peoples and has made specific changes to the original project to ensure their wishes are complied with
34. An Indigenous People's Planning Framework has been prepared for the project as a separate document (see Annex VI (c) of the GCF Submission).

### 1.4 OVERVIEW OF INSTITUTIONAL ARRANGEMENTS FOR THE ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK PLAN

35. The EMSF will be assessed for each sub-project by the NAF and UNDP prior to any works being undertaken. The EMSF identifies potential risks to the environment and social matters from the projects and outlines strategies for managing those risks and minimising undesirable environmental and social impacts. Further, the EMSF provides a Grievance Redress Mechanism for those that may be impacted by the projects that do not consider their views have been heard.
36. The NAF will be responsible for the supervision of the EMSF. The UNDP will gain the endorsement of the NAF and will ensure the EMSF is adequate and followed. The PMU will ensure timely remedial actions are taken by the contractor where necessary. Details of the responsible entities are provided below.

#### 1.4.1 National Adaptation Fund (NAF)

37. The NAF is a public entity responsible for the execution of comprehensive climate change projects in regions where the most vulnerable populations in Colombia are located. NAF was created in 2010 in response to the 2010-2011 "La Niña" phenomenon; the worst rainy season emergency that Colombia suffered in its history. This event demanded a declaration of economic, social and ecological emergency and left nearly four million people affected in 1,004 municipalities, representing 97% of Colombia.
38. The NAF has the mandate to structure and implement integrated projects for risk reduction and adaptation to climate change, in order to strengthen its competencies and contribute to reducing fiscal vulnerability of the State. In this context, with the National Development Plan 2014-2018 "Todos por un nuevo país" ("All for a New Country").
39. NAF has executed public long-term investments, with an annual performance of 1.2 thousand million pesos. Actions are targeted to mitigate risks of disasters and help regions to prepare to resist for similar or greater events, over the next 50 to 100 years, preventing future tragedies that involve high fiscal costs to assist affected populations and rebuild public infrastructure. As such, the NAF is considered to have strong capacity to undertake the project given the success it has demonstrated in past projects in Colombia more broadly and more specifically, the Adaptation Project that is currently being undertaken in three provinces of La Mojana.
40. The NAF will be the implementing agency and will be responsible for the implementation and compliance with the ESMF via the collaborating partners and contractors. The ESMF will be part of any tender documentation. The NAF will be responsible for the revision or updates of this document during the course of work. It is the responsibility of the person to whom the document is issued to ensure it is updated.
41. The site supervisor will be responsible for daily environmental inspections of the construction site. The NAF will cross check these inspections by undertaking monthly audits.
42. The contractor will maintain and keep all administrative and environmental records which would include a log of complaints together with records of any measures taken to mitigate the cause of the complaints. The contractor will be responsible for the day to day compliance of the ESMF.
43. The Supervising Engineer/Project Manager will supervise the contractor, while the NAF will be responsible for environment and social issues.

#### 1.4.2 National Planning Department (DNP)

44. The National Planning Department (NDP) is the leading national public entity in order to guide development planning in Colombia. As an entity responsible for the National Planning System, DNP coordinates the design of the National Development Plan, which is the main tool for prioritization and targeting of public spending in the country. According to the Current Development Plan of Colombia, the National Planning Department in coordination with the Ministry of Environment and Sustainable Development, are responsible parts of leading the formulation of a public policy that incorporates a green growth approach in planning development of the country which should: a) promote economic competitiveness, b) protect and ensure the sustainable use of the natural capital and ecosystem services, c) promote resilient growth against disasters and climate change d) ensure welfare and social inclusion.

### 1.4.3 Ministry of Environment and Sustainable Development (MASD)

45. The Ministry of Environment and Sustainable Development (MASD) is the governing entity managing the environment and renewable natural resources, responsible for guiding and regulating the environmental planning and defining the policies and the regulations related to restoration, conservation, protection, planning, management, use and sustainable exploitation of renewable natural resources and environment of the country. The Ministry promotes the development of eight sectors of the country, decoupling the growth of greenhouse gas emissions from the national economic growth through the Colombian Low Carbon Development Strategy.
46. MASD also assists on the formulation of sector and territorial plans for adaptation to climate change as a strategy to reduce the risk of climate impacts on populations and Colombian ecosystems, and with a view to conduct activities on Emission Reduction by Deforestation and Degradation of Forests, it is developing the National Strategy REDD+. Likewise, MASD leads the biodiversity policy and regulation and its monitoring and assessment. The proposed policies associated with the priority restoration and conservation in the greatest environmental relevance areas.
47. The MASD in coordination with the Ministry of Housing, City and Territory are responsible for coordinating the relational regulation with water management, with the economic and financial instruments that guarantee the supply of water resources and pollution control, pursuing their consistency with sector and regional needs and to encourage the investment required from providers, local authorities and environmental authorities.

### 1.4.4 Departments, municipalities and indigenous territories

48. According to Article 298 of the Constitution, the departments have autonomy for the administration of sectional matters and planning and promotion of economic and social development within its territory. Departments exercise actions on administration, coordination, complementarity of municipal action, intermediation between the national government and municipalities and the provision of services determined by the Constitution and laws. The departmental governments administratively direct and coordinate the department and carry out actions related to the management and promotion of comprehensive development of its territory in accordance with the Constitution and laws. Environmental issues in the departments shall issue special provisions relating to the environment; give technical, financial and administrative budgetary support to existing environmental authorities in their territory; coordinate and direct the environmental control and monitoring activities between municipalities supported by the security forces in connection with the mobilization, utilization and commercialization of renewable natural resources; among others.
49. In the case of indigenous territories, councils created and regulated according to the customs of their communities shall exercise the functions related to the application of legal rules on land use and settlement of their territories, receive and distribute resources, policy and plans and programs of economic and social development, promote public investments in their territories and ensure its proper implementation, among others (Article 330 of the Constitution of Colombia). The indigenous territorial entities have the same functions and duties defined for municipalities environmental matters (Act 99 of 1993.)

### 1.4.5 Capacity Building

50. The project will implement a knowledge management program that will create a data bank on adaptive water management, systematize lessons learned and implement training and capacity building programs targeted to relevant stakeholders at the national, regional and local level. The data bank will systematize the lessons learned from the GCF Project and will serve to develop knowledge management tools created to target stakeholders in the region such as municipal authorities, community councils, community leaders, extension workers, productive associations and national authorities. This will include the development of training material (web courses, workbooks, planning guides, etc.) and targeted workshops.
51. From this knowledge bank, the university will work jointly with the National Adaptation Fund to ensure that the information is tailored towards practical solutions for the region. Particular emphasis will be made to providing training to local and municipal authorities. Knowledge management will provide support to the GoC's efforts in establishing a regional interagency water board that that will serve as an interagency planning mechanism to ensure that all planning decisions (economic, development, infrastructure) streamline water management impact and use in the region. Support from the presidential agency for cooperation (PAC Colombia) will also be provided through its national Col-Col

Cooperation Program to project best practices from La Mojana to similarly impacted regions in Colombia as well as through its South-South program to share international best practices.

52. The project will also undertake capacity building and staffing of expert meteorologists and hydrologists on meteorological, hydrological and climatological numerical modeling, data and signal analysis and experience in GIS and GDB construction as well as for the purchase of hydromet equipment and software licensing for data modeling and forecasting.

## 2 LEGAL AND INSTITUTIONAL FRAMEWORK FOR ENVIRONMENTAL AND SOCIAL MATTERS

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### 2.1 LEGISLATION, POLICIES AND REGULATIONS

53. The following legislation is relevant to the project:

- a. *Constitution 1991* (as amended)
- b. *National Natural Renewable Resources and Environmental Protection Code* Decree Law 2811 of 1974, a comprehensive statute that remains one of the pillars of GoC's natural resource and environmental law;
- c. *Environmental Law No. 99 of 1993* which created the National Environmental System (Sistema Nacional Ambiental - SINA) and relevant decrees and laws;
- d. *Law 789 of 2002* which creates the Social Protection System (*Sistema de Protección Social*);
- e. *Forestry Law 1963*;
- f. *National Parks System Statute 1977*;
- g. *National System for Risk Disaster Management*. Law 1523 of 2012; and
- h. *Land Planning Law*: Law 1454 de 2011.

#### 2.1.1 Constitution

54. The Constitution is the centrepiece of the mandating of environmental and social protection for Colombia. Chapters II (On Social, Economic, and Cultural Rights) and III are (On Collective Rights and the Environment) set out an individual's rights and the GoC's (and municipalities and territories) obligations to provide environmental and social protection.

55. Article 25 sets out obligations in relation to work. Article 25 states:

*Work is a right and a social obligation and enjoys, in all its forms, the special protection of the State. Every individual is entitled to a job under dignified and equitable conditions.*

56. Article 49 provides for public health and environmental protection, in that they are public services. The relevant parts of Article 49 states:

*Public health and environmental protection are public services for which the State is responsible. All individuals are guaranteed access to services that promote, protect, and restore health.*

*It is the responsibility of the State to organize, direct, and regulate the provision of health services to the inhabitants and of environment protection in accordance with the principles of efficiency, universality, and solidarity; in addition, to establish policies for the provision of health services by private entities and to exercise oversight and control over them; and to establish the competences of the nation, territorial entities, and individuals, and to determine the subsidies to their tasks in the terms and conditions established by statute.*

57. Article 64 is particularly relevant for the purposes of the project with respect to agriculture and services. Article 64 states:

*It is the duty of the State to promote the gradual access of agricultural workers to landed property in individual or associational form and to services involving education, health, housing, social security, recreation, credit, communications, the marketing of products, technical and management assistance with the purpose of improving the incomes and quality of life of the peasants.*

58. Article 79 is an important provision with respect to the environment and its protection. Article 79 states:

*Every person has the right to enjoy a healthy environment. The law will guarantee the community's participation in the decisions that may affect it. It is the duty of the state to*

*protect the diversity and integrity of the environment, to conserve areas of special ecological importance, and to foster education for the achievement of these ends.*

59. Article 80 sets out the GoC's responsibilities with respect to environmental protection. The article states:

*The state will plan the handling and use of natural resources in order to guarantee their sustainable development, conservation or replacement. Additionally, it will have to prevent and control the factors of environmental deterioration, impose legal sanctions, and demand the repair of any damage caused. In the same way, it will cooperate with other nations in the protection of the ecosystems located in the border areas.*

60. With respect to exploitation of natural resources in Colombia, Article 334 is very important. Article 334 states:

*The general management of the economy is the responsibility of the state. By means of the law, the state will intervene in the exploitation of natural resources, land use, the production, distribution, use, and consumption of goods, and in public and private services in order to streamline the economy with the purpose of achieving an improved quality of life for the inhabitants, the equitable distribution of opportunities, and the benefits of development and conservation of a healthy environment.*

61. Article 339 related to National Development Plan which is a key document in the development of the project. Article 339 states:

*There shall be a National Development Plan consisting of a general part and a plan of investments of the national public entities. In the general part the long-term national purposes and objectives, the parameters and priorities for State action in the medium term, and the strategies and general orientations of economic, environmental and social policy to be adopted by the government shall be laid down. The public investment plan shall contain the multi-year budgets of the principal programs and national public investment projects, and the specification of the financial resources required for their execution, within a framework which ensures fiscal sustainability*

*The territorial entities shall elaborate and adopt in a concerted manner between them and the National Government development plans with the purpose of ensuring the efficient use of their resources, the development of strategies in the fight against poverty and the adequate execution of the functions assigned to them by the Constitution and statute. The plans of the territorial entities shall consist of a strategic plan and a plan for short and long term investments*

62. This article is important for the municipalities in La Mojana as it gives them a power to undertake activities related to the National Development Plan.

63. Article 366 is a very important provision as to the GoC's responsibility to provide general wellbeing and importantly, to provide for drinking water, this being an important activity of the project. Article 366 states:

*The general well-being and improvement of the population's quality of life are social purposes of the State. A basic objective of their activity shall be to address the unfulfilled public health, educational, environmental, and drinking water needs of those affected.*

*For such an outcome, in the plans and budgets of the nation and of the territorial entities, public social expenditures shall have priority over any other allocation.*

64. Generally, the Constitution sets the foundation for the environmental and social protection, something that is critical to the project.

### 2.1.2 National Natural Renewable Resources and Environmental Protection Code Decree Law 2811 of 1974

65. Under Colombian law, the environmental basic statute is contained in Decree 2811 of 1974 together with its regulations. In addition, the environmental regulations are set out in Decree 1541 of 1978, Decree 1608 of 1978, Decree 1715 of 1978, Decree 2858 of 1981, Law 30 of 1990, Law 99 of 1993, Law 165 of 1994, Law 253 of 1996, Law 344 of 1996, Decree 948 of 1996, Law 357 of 1997, Law 393 of 1997, Decree 1687 of 1997, Law 439 of 1998, Law 472 of 1998, Law 489 of 1998, Law 511 of 1999, Decree 1124 of 1999, Law 618 of 2000, Decree 1909 of 2000, Decree 48 of 2001, Law 740 of 2002, Law 790 of 2002, Decree 1604 of 2002, Decree 1713 of 2002, Decree 1729 of 2002, Decree 190 of

2003, Resolution 1023 of 2005, Resolution 1555 of 2005, Decree 979 of 2006, Law 1124 of 2007, Law 29 of 1992, Law 1333 of 2009 and Decree 1076 of 2015 among others.

66. The Decree 2811 of 1,974 regulates the management of renewable natural resources. The objectives of Decree Law 2811 are:
- a. achieve the preservation and restoration of the environment and the conservation, improvement and rational use of renewable natural resources, according to criteria of equity that ensure the harmonious development of man and of these resources, their permanent availability and maximum social participation, for the benefit of the health and well-being of the present and future inhabitants of the national territory;
  - b. prevent and control the harmful effects of the exploitation of non-renewable natural resources on other resources; and
  - c. regulate the human behaviour, individual or collective and the activity of the public administration, with respect to the environment and renewable natural resources and the relations that arise from the use and conservation of such resources and environment.

### 2.1.3 Law 99 of 1993

67. The GoC passed Law 99 in 1993. Law 99 creates the institutional framework for the protection of the environment and the management of natural resources. Law 99 of 1993 created the Ministry of the Environment (now MASD) and the National Environmental System (SINA). Law reformed the environmental management public sector, defined the composition and functions of the SINA and established rules for planning of environmental management.
68. The Ministry of the Environment was created as the governing body for the management of the environment and renewable natural resources. The Ministry must define the policies and regulations to which the recovery, conservation, protection, management, use and use of renewable natural resources and the environment of Colombia. Further, the Ministry must formulate the national environmental and renewable natural resources policy so as to guarantee the right of all people to enjoy a healthy environment and protect the natural heritage and sovereignty of Colombia.
69. The SINA was created as the set of guidelines, norms, activities, resources, programs and institutions that allow for the implementation of the general principles mentioned above. The SINA is a hierarchical structure of the agencies responsible for the enforcement of environmental matters and the management of natural resources in Colombia. The SINA is composed of State entities responsible for environmental policy and action; community and non-governmental organisations related to environmental issues; sources and economic resources for the management and recovery of the environment; public, private or mixed entities that carry out activities of information production, scientific research and technological development in the environmental field.
70. Other entities involved in with environmental powers include the Regional Authorities, the Sustainable Development Authorities, the Large Urban Districts and the Special Caribbean Districts, formally created by the law to manage the protection of the environment and enforce environmental law within the regions of their competent jurisdictions. The Regional Authorities also evaluate, approve, control and issue environmental licences, permits and other environmental management and control instruments within their jurisdictions. Among their functions, the Regional Authorities may also establish environmental policies at the regional level. Law 99 of 1993 also attributes judicial functions to departmental, district and municipal authorities.
71. The set of rules from Law 99 of 1993 regarding the imposition of sanctions and penalties for violation of environmental laws were amended by Law 1333 of 2009, which established the environmental sanctions regime. Through this regime, environmental sanctions or preventive measures might be imposed by the competent environmental authorities for activities alleged to be in violation of environmental legal dispositions. These attributions are also granted to the National Army, and the departmental, district and municipal authorities.
72. In September 2011, Congress passed Law 3573 of 2011 which provided for the establishment of the National Authority for Environmental Licences (ANLA). The ANLA is an administrative and financially-autonomous entity in charge of evaluating, approving and issuing environmental licences, permits and other environmental procedures, as well as enforcing environmental law within such procedures.

73. On 26 May 2015 the GoC signed Decree 1076 of 2015, which dictated the Decree of the Environmental and Sustainable Development Sector. With this Decree, the GoC unified all the environmental subjects that were regulated in others Decrees.
74. Environmental licences for projects are regulated in Article 2.2.2.3.1.1 and subsequent in Decree 1076 of 2015, which is defined as the authorisation granted by the State to develop an activity that, according to the regulation, might cause the deterioration of natural renewable resources and the environment. Although it is called an environmental licence, it must cover social and economic aspects as well.
75. An environmental licence comprises the terms and conditions to be attended in relation to the management and use of natural resources through the development of the activity. It also includes the obligations with regards to the prevention, mitigation and compensation of the effects that the activity may involve. According to the current regulation, an environmental licence is only required to develop the activities listed in articles 2.2.2.3.2.2 and 2.2.2.3.2.3 of Decree 1076 of 2015.

### 2.1.4 National System for Risk Disaster Management: Law 1523 of 2012

76. Law 1523 of 2012 created the National System for Risk Disaster Management corresponding to the set of public, private and community institutions, pertaining policies, standards, processes, resources, plans, strategies, tools, mechanisms, and information on the issue, which is applied in an organized manner to ensure risk management in the country.
77. The Law redefined the institutional platform that supports the actions at the national, departmental and municipal levels to optimize the management of disaster risk, and defined the planning and management instruments, and information systems and finance funds to be structured. The system's general objective is to carry out the social process of risk management for the purpose of providing protection to the population in the Colombian territory, improve safety, welfare and quality of life and contribute to sustainable development.
78. The specific objectives set are:
  - a. develop, maintain and ensure the process of risk awareness through actions such as the identification of scenarios and risk factors, analyses and risk assessments, monitoring and communication to public and private entities and to the population in general;
  - b. develop and maintain the risk reduction process through preventive actions to avoid the generation of new risk conditions, corrective intervention through mitigation actions and financial protection; and
  - c. develop, maintain and ensure the disaster management process through actions of preparation for disaster response (organisation, warning systems, training, equipment and training, among others), preparedness for recovery, attention to the affected population and rehabilitation and reconstruction of socio-economic, environmental and physical conditions, under the security and sustainable development criteria.

### 2.1.5 Land Planning Law: Law 1454 of 2011

79. Law 1454 of 2011 prescribes norms for the political and administrative organisation of Colombian territory; establishes guiding principles; defines the institutional framework and instruments for territorial development; establishes competences in terms of territorial planning of territorial entities and metropolitan areas, and rules territorial organisation.
80. The purpose of the territorial order is to promote the increase of the capacity of decentralization, planning, management and administration of its own interests for the entities and instances of territorial integration, and promote transfer of competences and decision responsibilities of the central or decentralized government organs. The Law establishes functions of the nation, departments and municipalities are established in the areas of land management, based on the principles of competition, complementarity and subsidiarity between these entities, opening the path for the formulation of the general policy of regional planning and formulating departmental plans to guide the formulation of land use plans. In addition, this act opens the possibility of the formation of municipal and departmental partnership schemes in order to establish strategic alliances.

### 2.2 ENVIRONMENTAL IMPACT ASSESSMENT IN COLOMBIA

81. In 1993, Law No. 99 was approved by the National Congress. The Law made provisions regarding the management of environmental conservation and renewable natural resources by the public sector. It defined the process to obtain an environmental licence and related responsibilities.
82. The decree on environmental licensing regulations from 1994 has been amended several times. Decree 1728 of 2002 re-established the environmental impact assessment (EIA) process and focused on environmental licensing on land use planning. The decree was repealed by Decree 1180 of 2003. In 2005, Decree 1220 was issued focusing on economic, environmental and territorial criteria. In 2010, this Decree was amended through Decree 2820. The general methodology for the presentation of environmental studies was adopted in 2010. This provides a tool with a legal base that unifies and classifies the environmental studies.
83. The following other regulations are also of relevance:
  - a. Decree 1320 of 1998 regulates the consultation in the case of projects that are developed within territories of black and indigenous populations;
  - b. The Decree of 2007 regulates public hearings in the process of obtaining environmental licenses;
  - c. Resolution 1503 of 2010 establishes the general methodology for the presentation of environmental studies. The methodology is applied to studies such as the environmental impact assessment of alternatives and the environmental management plan; and
  - d. Decree 3573 that established the ANLA in 2011.
84. The EIA applies to all public and private works, activities and projects as per Decree No. 2820 of 2010. An EIA is required prior to the investments.
85. Article 11 of Law 99 sets out the purpose of an EIA as the basic tool for decision-making regarding projects, works and activities that significantly affect the environment.
86. Law 99 established exclusive powers for the MADS in relation to activities that are considered to be of national public interest and that have a bearing on key sectors in the economic development of the country. It remains unclear if this means that the Ministry can exempt an activity from the EIA process though, as the Decree 2820 does not specify criteria or projects/activities for exemption of EIA.
87. An assessment of the project indicates that based on the current law, an EIS is not required for any component of the project.

### 2.3 MULTILATERAL AGREEMENTS AND BIODIVERSITY PROTOCOLS

88. GoC is a signatory to 105 international and regional agreements and conventions, which are related to the environment and social protection.

### 3 IMPLEMENTATION AND OPERATION

#### 3.1 GENERAL MANAGEMENT STRUCTURE AND RESPONSIBILITIES

89. A high level PMU structure is shown in Figure 2. The key roles are discussed below.

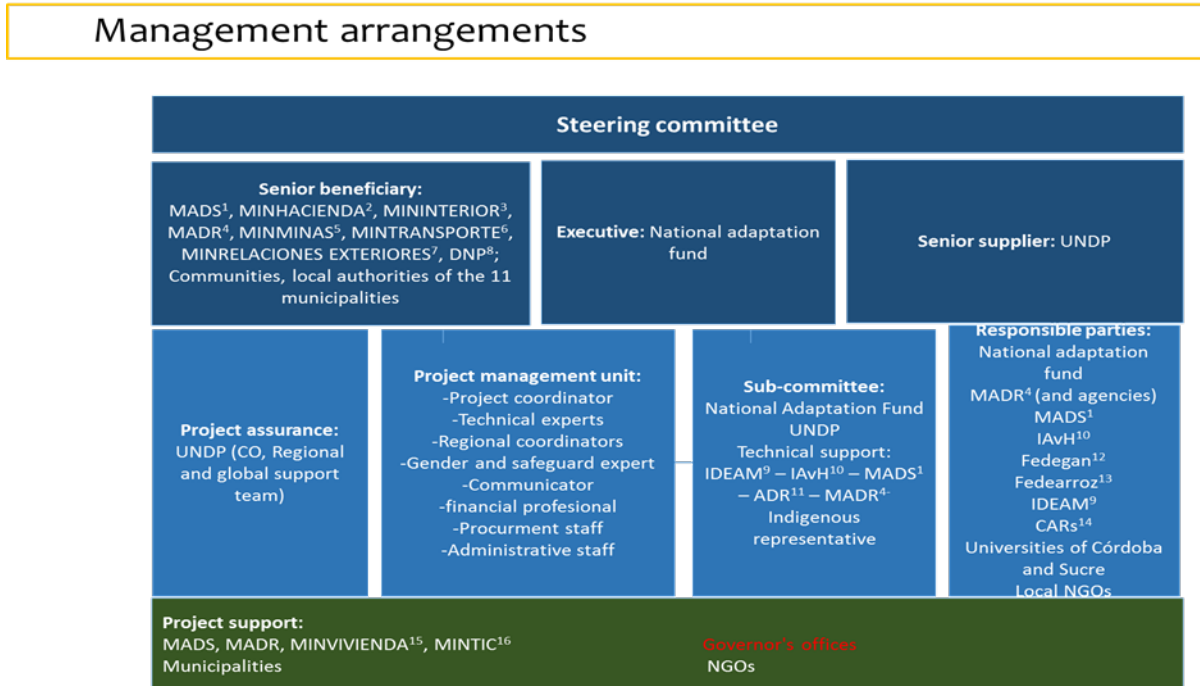


Figure 2 Project organisation structure

##### 3.1.1 Steering Committee and Senior Beneficiaries

90. The Project Board/Steering Committee is comprised of Implementing Partner and Responsible Parties (senior beneficiaries). The Implementing Partner for this project is the NAF. The NAF is accountable to UNDP for managing the project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of UNDP resources.

##### 3.1.2 National Project Management Unit

91. The PMU will be established under the NAF. The PMU will include the key roles identified in the organisation chart, in particular the Project Manager.

92. The Project Manager will run the project on a day-to-day basis on behalf of the NAF within the constraints laid down by the Project Steering Committee. The Project Manager's function will end when the final project terminal evaluation report and other documentation required by the GCF and UNDP, has been completed and submitted to UNDP. The Project Manager is responsible for day-to-day management and decision-making for the project. The Project Manager's prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost.

##### 3.1.3 Project Assurance

93. The 'project assurance' function of UNDP is to support the Project Board by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed. Project assurance has to be independent of the Project Manager; therefore, the Steering Committee cannot delegate any of its assurance responsibilities to the Project Manager. Further, as the Senior Supplier, UNDP provides quality assurance for the project; ensures adherence to the NIM guidelines and ensures compliance with GCF and UNDP policies and procedures.

94. A UNDP Programme Officer and/or Monitoring and Evaluation Officer typically holds the Project Assurance role on behalf of UNDP.

### 3.2 PROJECT DELIVERY AND ADMINISTRATION

#### 3.2.1 Project Delivery

95. The project will be delivered on the ground via the NAF. NAF has extensive experience in delivering successful programs in La Mojana. In addition, collaboration with municipal governments, existing NGOs and local communities is expected UNDP.

#### 3.2.2 Administration of EMSF

96. As the implementing agency, NAF will be responsible for responsible for the implementation with the EMSF via the delivery organisations.

97. The EMSF will be part of any tender documentation. The NAF will be responsible for the revision or updates of this document during the course of work. It is the responsibility of the person to whom the document is issued to ensure it is the most up to date version.

98. The UNDP and NAF are accountable for the provision of specialist advice on environmental and social issues to the delivery organisations (eg contractors and/or NGOs) and for environmental and social monitoring and reporting. The NAF or its delegate will assess the environmental and social performance of the delivery organisations (eg contractors) in charge of delivering each component throughout the project and ensure compliance with the EMSF. During operations the delivery organisations will be accountable for implementation of the EMSF. Personnel working on the projects have accountability for preventing or minimising environmental and social impacts.

99. The Field Officer will be responsible for daily environmental inspections of the project/construction site. The NAF or its delegate will cross check these inspections by undertaking monthly audits.

100. The delivery organisation eg contractor will maintain and keep all administrative and environmental records, which would include a log of complaints together with records of any measures taken to mitigate the cause of the complaints.

101. The delivery organisation will be responsible for the day to day compliance of the EMSF

#### 3.2.3 Environmental procedures, site and activity-specific work plans/instructions

102. Environmental procedures provide a written method describing how the management objectives for a particular environmental element are to be obtained. They contain the necessary detail to be site or activity-specific and are required to be followed for all construction works. Site and activity-specific work plans and instructions are to be issued and will follow the previously successful work undertaking similar projects by the UNDP, GoC and the NAF.

#### 3.2.4 Environmental and Social Code of Practice for Rainwater Harvesting and Site and Activity-Specific Work Plans/Instructions

103. Environmental procedures provide a written method describing how the management objectives for a particular environmental and social element are to be obtained. They contain the necessary detail to be site or activity-specific and are required to be followed for all construction works.

104. As part of this ESMF, an Environmental and Social Code of Practice has been included for the Rainwater Harvesting. The Code of Practice included the construction, operation, maintenance and as necessary although highly unlikely, the decommissioning of the rainwater tanks. The Code of Practice is included as Annexure Three to the ESMF.

105. Other site specific work plans will be developed during implementation.

#### 3.2.5 Environmental incident reporting

106. Any incidents, including non-conformances to the procedures of the EMSF are to be recorded using an Incident Record and the details entered into a register. For any incident that causes or has the potential to cause material or serious environmental harm, the camp officer shall notify the Project Manager as soon as possible. The delivery organisation/contractor must cease work until remediation has been completed as per the approval of NAF.

#### 3.2.6 Daily and weekly environmental inspection checklists

107. A daily environmental checklist is to be completed at each work site by the relevant camp officer and maintained within a register. A weekly environmental checklist is to be completed and will include

reference to any issues identified in the daily checklists completed by the field officers. The completed checklist is to be forwarded to NAF for review and follow-up if any issues are identified.

### 3.2.7 Corrective Actions

108. Any non-conformances to the EMSF are to be noted in weekly environmental inspections and logged into the register. Depending on the severity of the non-conformance, the camp officer may specify a corrective action on the weekly site inspection report. The progress of all corrective actions will be tracked using the register. Any non-conformances and the issue of corrective actions are to be advised to NAF.

### 3.2.8 Review and auditing

109. The EMSF and its procedures are to be reviewed at least every two months by UNDP staff and NAF. The objective of the review is to update the document to reflect knowledge gained during the course of project delivery/construction and to reflect new knowledge and changed community standards (values).

110. The EMSF will be reviewed and amendments made if:

- a. there are relevant changes to environmental conditions or generally accepted environmental practices; or
- b. new or previously unidentified environmental risks are identified; or
- c. information from the project monitoring and surveillance methods indicate that current control measures require amendment to be effective; or
- d. there are changes to environmental legislation that are relevant to the project; or
- e. there is a request made by a relevant regulatory authority; or
- f. any changes are to be developed and implemented in consultation with UNDP Staff and NAF. When an update is made, all site personnel are to be made aware of the revision as soon as possible eg through a tool box meeting or written notification.

## 3.3 TRAINING

111. Delivery organisations have the responsibility for ensuring systems are in place so that relevant employees, contractors and other workers are aware of the environmental and social requirements for construction, including the EMSF.

112. All project personnel will attend an induction that covers health, safety, environment and cultural requirements.

113. All workers engaged in any activity with the potential to cause serious environmental harm (e.g. handling of hazardous materials) will receive task specific environmental training.

## 4 COMMUNICATION

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### 4.1 PUBLIC CONSULTATION AND ENVIRONMENTAL AND SOCIAL DISCLOSURE

114. The EMSF includes public consultation as part of the stakeholder engagement plan. The project was discussed with a wide range of stakeholders including relevant government departments, industry groups, NGOs, and individual community members and approved by Government. Extensive on-ground consultation has been undertaken during the design of the project (as well as during the earlier projects that this project is aiming to upscale) and it is expected that consultation with any affected communities will continue. It is anticipated that based on the communities' needs, the projects will be fully accepted.
115. The UNDP and NAF will develop and release updates on the project on a regular basis to provide interested stakeholders with information on project status. Updates may be via a range of media eg print, radio, social media or formal reports. A publicized telephone number will be maintained throughout the project to serve as a point of contact for enquiries, concerns and complaints. All enquiries, concerns and complaints will be recorded on a register and the appropriate manager will be informed. All material must be published in English and Spanish.
116. Where there is a community issue raised, the following information will be recorded:
- time, date and nature of enquiry, complaint or concern;
  - type of communication (e.g. telephone, letter, personal contact);
  - name, contact address and contact number;
  - response and investigation undertaken as a result of the enquiry, complaint or concern; and
  - actions taken and name of the person taking action.
117. Some enquiries, complaints and concerns may require an extended period to address. The complainant(s) will be kept informed of progress towards rectifying the concern. All enquiries, complaints and concerns will be investigated and a response given to the complainant in a timely manner. A grievance redress mechanism has been included in the ESMF to address any complaints that may not be able to be resolved quickly.
118. Nominated PMU/contractor staff will be responsible for undertaking a review of all enquiries, complaints and concerns and ensuring progress toward resolution of each matter. A dedicated email and hotline will be established and the ESMF updated with details of the email and hotline during implementation.

### 4.2 COMPLAINTS REGISTER AND GRIEVANCE REDRESS MECHANISM

119. During the construction and implementation phases of any project, a person or group of people can be adversely affected, directly or indirectly due to the project activities. The grievances that may arise can be related to social issues such as eligibility criteria and entitlements, disruption of services, temporary or permanent loss of livelihoods and other social and cultural issues. Grievances may also be related to environmental issues such as excessive dust generation, damages to infrastructure due to construction related vibrations or transportation of raw material, noise, traffic congestions, decrease in quality or quantity of private/ public surface/ ground water resources during wetland rehabilitation, damage to home gardens and agricultural lands etc.
120. Should such a situation arise, there must be a mechanism through which affected parties can resolve such issues in a cordial manner with the project personnel in an efficient, unbiased, transparent, timely and cost-effective manner. To achieve this objective, a grievance redress mechanism has been included in EMSF for this project.
121. The project allows those that have a complaint or that feel aggrieved by the project to be able to communicate their concerns and/or grievances through an appropriate process. The Complaints Register and Grievance Redress Mechanism set out in this EMSF are to be used as part of the project and will provide an accessible, rapid, fair and effective response to concerned stakeholders, especially any vulnerable group who often lack access to formal legal regimes.
122. While recognising that many complaints may be resolved immediately, the Complaints Register and Grievance Redress Mechanism set out in this EMSF encourages mutually acceptable resolution of

issues as they arise. The Complaints Register and Grievance Redress Mechanism set out in this EMSF has been designed to:

- a. be a legitimate process that allows for trust to be built between stakeholder groups and assures stakeholders that their concerns will be assessed in a fair and transparent manner;
- b. allow simple and streamlined access to the Complaints Register and Grievance Redress Mechanism for all stakeholders and provide adequate assistance for those that may have faced barriers in the past to be able to raise their concerns;
- c. provide clear and known procedures for each stage of the Grievance Redress Mechanism process, and provides clarity on the types of outcomes available to individuals and groups;
- d. ensure equitable treatment to all concerned and aggrieved individuals and groups through a consistent, formal approach that, is fair, informed and respectful to a complaint and/or concern;
- e. to provide a transparent approach, by keeping any aggrieved individual/group informed of the progress of their complaint, the information that was used when assessing their complaint and information about the mechanisms that will be used to address it; and
- f. enable continuous learning and improvements to the Grievance Redress Mechanism. Through continued assessment, the learnings may reduce potential complaints and grievances.

123. Eligibility criteria for the Grievance Redress Mechanism include:

- a. Perceived negative economic, social or environmental impact on an individual and/or group, or concern about the potential to cause an impact;
- b. clearly specified kind of impact that has occurred or has the potential to occur; and explanation of how the project caused or may cause such impact; and
- c. individual and/or group filing of a complaint and/or grievance is impacted, or at risk of being impacted; or the individual and/or group filing a complaint and/or grievance demonstrates that it has authority from an individual and or group that have been or may potentially be impacted on to represent their interest.

124. Local communities and other interested stakeholders may raise a grievance/complaint at all times to the NAF. Affected local communities should be informed about the EMSF provisions, including its grievance mechanism and how to make a complaint.

### 4.2.1 Complaints register

125. Where there is a community issue raised, the following information will be recorded:

126. A complaints register will be established as part of the project to record any concerns raised by the community during construction. Any complaint will be advised to the UNDP and NAF within 24 hours of receiving the complaint. The complaint will be screened. Following the screening, complaints regarding corrupt practices will be referred to the UNDP for commentary and/or advice along with the NAF.

127. Wherever possible, the project team will seek to resolve the complaint as soon as possible, and thus avoid escalation of issues. However, where a complaint cannot be readily resolved, then it must be escalated.

128. A summary list of complaints received and their disposition must be published in a report produced every six months.

### 4.2.2 Grievance Redress Mechanism

129. The Grievance Redress Mechanism has been designed to be problem-solving mechanism with voluntary good-faith efforts. The Grievance Redress Mechanism is not a substitute for the legal process. The Grievance Redress Mechanism will as far as practicable, try to resolve complaints and/or grievances on terms that are mutually acceptable to all parties. When making a complaint and/or grievance, all parties must act at all times, in good faith and should not attempt to delay and or hinder any mutually acceptable resolution.

130. In order to ensure smooth implementation of the Project and timely and effectively addressing of problems that may be encountered during implementation, a robust Grievance Redress Mechanism, which will enable to the Project Authorities to address the grievances of the stakeholders of the Project has been established.

131. All complaints regarding social and environmental issues can be received either orally (to the field staff), by phone, in complaints box or in writing to the UNDP, NAF or the Construction Contractor. A key part of the grievance redress mechanism is the requirement for the project proponent and construction contractor to maintain a register of complaints received at the respective project site offices. All complainants shall be treated respectfully, politely and with sensitivity. Every possible effort should be made by the project proponent and construction contractor to resolve the issues referred to in the complaint within their purview. However, there may be certain problems that are more complex and cannot be solved through project-level mechanisms. Such grievances will be referred to the Grievance Redress Committee. It would be responsibility of the NAF to solve these issues through a sound / robust process.
132. The Grievance Redress Mechanism has been designed to ensure that an individual and/or group are not financially impacted by the process of making a complaint. The Grievance Redress Mechanism will cover any reasonable costs in engaging a suitably qualified person to assist in the preparation of a legitimate complaint and/or grievance. Where a complaint and/or grievance is seen to be ineligible, the Grievance Redress Mechanism will not cover these costs.
133. Information about the Grievance Redress Mechanism and how to make a complaint must be placed at prominent places for the information of the key stakeholders.
134. The Safeguards officer in the PMU will be designated as the key officer in charge of the Grievance Redress Mechanism. The Terms of Reference for these positions (as amended from time to time) will have the following key responsibilities:
- a. coordinate formation of Grievance Redress Committees before the commencement of constructions to resolve issues;
  - b. act as the focal point at the PMU on Grievance Redress issues and facilitate the resolution of issues within the PMU;
  - c. create awareness of the Grievance Redress Mechanism amongst all the stakeholders through public awareness campaigns;
  - d. assist in redress of all grievances by coordinating with the concerned parties;
  - e. maintain information on grievances and redress;
  - f. monitor the activities of NAF on grievances issues; and
  - g. prepare the progress for monthly/quarterly reports.
135. A two tier Grievance Redress Mechanism structure has been developed to address all complaints in the project. The first tier redress mechanism involves the receipt of a complaint. The stakeholders are informed of various points of making complaints (if any) and the PMU collect the complaints from these points on a regular basis and record them. This is followed by coordinating with the concerned people to redress the Grievances. The Safeguards Officer of the PMU will coordinate the activities at the respective District level to address the grievances and would act as the focal point in this regard. The Capitan as a representative of the lesser councils (*cabildos indigenas*) or in the absence of the Capitan, any officer given the responsibility of this such as the indigenous sheriff would coordinate with the Safeguards and Gender Manager of the PMU and NAF in redressing the grievances. The designated officer of the Local Authorities is provided with sufficient training in the procedure of redress to continue such systems in future.
136. The complaints can be made orally (to the field staff), by phone, in complaints box or in writing to the UNDP, NAF or the Construction Contractor. Complainants may specifically contact the Safeguards Officer and request confidentiality if they have concerns about retaliation. In cases where confidentiality is requested (i.e. not revealing the complainant's identity to UNDP, NAF and/or the Construction Contractor). In these cases, the Safeguards Officer will review the complaint, discuss it with the complainant, and determine how best to engage project executing entities while preserving confidentiality for the complainant.
137. As soon as a complaint is received, the Safeguards Officer would issue an acknowledgement. The Community Development Officer receiving the complaint should try to obtain relevant basic information regarding the grievance and the complainant and will immediately inform the Safeguards Officer in the PMU.

138. The PMU will maintain a Complaint / Grievance Redress register at the municipality level. Keeping records collected from relevant bodies is the responsibility of PMU.
139. After registering the complaint, the Safeguards Officer will study the complaint made in detail and forward the complaint to the concerned officer with specific dates for replying and redressing the same. The Safeguards Officer will hold meetings with the affected persons / complainant and then attempt to find a solution to the complaint received. If necessary, meetings will be held with the concerned affected persons / complainant and the concerned officer to find a solution to the problem and develop plans to redress the grievance. The deliberations of the meetings and decisions taken are recorded. All meetings in connection with the Grievance Redress Mechanism, including the meetings of the Grievance Redress Committee, must be recorded. The Safeguards Officer for the Grievances Redress Mechanism will be actively involved in all activities.
140. A Community Project Implementation Committee would be formed to oversee the first tier of the Grievance Redress Mechanism. The Community Project Implementation Committee would include:
  - a. the Capitan as a representative of the Lesser Council;
  - b. a representative of women group in the community selected in the community assembly;
  - c. a representative of the local authority at the municipality level – the Major;
  - d. a representative of the “Defensoria del Pueblo”;
  - e. a representative of the Environmental Regional Autonomous Corporation; and
  - f. Safeguards Officer PMU.
141. The resolution at the first tier will normally be completed within 15 working days and the complaint will be notified of the proposed response through a disclosure form. The resolution process should comply with the requirements of the Grievance Redress Mechanism in that it should, as far as practicable, be informal with all parties acting in good faith. Further, the Grievance Redress Mechanism should, as far as practicable, achieve mutually acceptable outcomes for all parties.
142. Should the grievance be not resolved within this period to the satisfaction of the complainant, the grievance will be referred to the next level of Grievance Redress Mechanism. If the social safeguard and gender officer feels that adequate solutions can be established within the next five working days, the officer can decide on retaining the issue at the first level by informing the complainant accordingly. However, if the complainant requests for an immediate transfer to the next level, the matter must be referred to the next tier. In any case, where the issue is not addressed within 20 working days, the matter is referred to the next level.
143. Any grievance related to corruption or any unethical practice should be referred immediately to the Office of the Attorney General of Colombia (Spanish: Fiscalía General de la Nación; literally "General Prosecutorial Office of the Nation") and the Office of Audit and Investigation within the UNDP in New York.
144. The Grievance Redress Committee formed at every sub-district level would address the grievance in the second tier. A Grievance Redress Committee will be constituted for every Municipality by the circulars issued by the representative of the “Defensoria del Pueblo” who would also be the Chairman of the Committee.
145. The Structure of the committee would be:
  - a. a representative of the Municipal Authority – Chairman;
  - b. the Captain;
  - c. a representative of the “Defensoria del Pueblo”;
  - d. representative of the non-government organisation/civil society working in the area as nominated by the lesser council – *cabildo indigena*;
  - e. a representative of the Environmental Regional Autonomous Corporation; and
  - f. Safeguards Officer.
146. The Safeguard Officer from the PMU will coordinate with the respective Commissioner of Local Government in getting these Committees constituted for each Province and get the necessary circulars issued in this regard so that they can be convened whenever required.

147. The Terms of Reference for the Grievance Redress Committee are:
- a. providing support to the affected persons in solving their problems;
  - b. prioritise grievances and resolve them at the earliest;
  - c. provide information to the PMU and NAF on serious cases at the earliest opportunity;
  - d. Coordinate with the aggrieved person/group and obtain proper and timely information on the solution worked out for his/her grievance; and
  - e. study the normally occurring grievances and advise PMU, National and District Steering Committee on remedial actions to avoid further occurrences.
148. The Grievance Redress Committee will hold the necessary meetings with the aggrieved party/complainant and the concerned officer and attempt to find a solution acceptable at all levels. The Grievance Redress Committee would record the minutes of the meeting.
149. Grievance Redress Committee will communicate proposed responses to the complainant formally. If the proposed response satisfies the complainant, the response will be implemented and the complaint closed. In cases where a proposed response is unsatisfactory to the complainant, the Grievance Redress Committee may choose to revise the proposed response to meet the complainant's remaining concerns, or to indicate to the complainant that no other response appears feasible to the Grievance Redress Committee. The complainant may decide to take a legal or any other recourse if s/he is not satisfied with the resolutions due to the deliberations of the three tiers of the grievance redress mechanism.
150. In addition to the project-level and national grievance redress mechanisms, complainants have the option to access UNDP's Accountability Mechanism, with both compliance and grievance functions. The Social and Environmental Compliance Unit investigates allegations that UNDP's Standards, screening procedure or other UNDP social and environmental commitments are not being implemented adequately, and that harm may result to people or the environment. The Social and Environmental Compliance Unit is housed in the Office of Audit and Investigations, and managed by a Lead Compliance Officer. A compliance review is available to any community or individual with concerns about the impacts of a UNDP programme or project. The Social and Environmental Compliance Unit is mandated to independently and impartially investigate valid requests from locally impacted people, and to report its findings and recommendations publicly.
151. The Stakeholder Response Mechanism offers locally affected people an opportunity to work with other stakeholders to resolve concerns about the social and environmental impacts of a UNDP project. Stakeholder Response Mechanism is intended to supplement the proactive stakeholder engagement that is required of UNDP and its Implementing Partners throughout the project cycle. Communities and individuals may request a Stakeholder Response Mechanism process when they have used standard channels for project management and quality assurance, and are not satisfied with the response (in this case the project level grievance redress mechanism). When a valid Stakeholder Response Mechanism request is submitted, UNDP focal points at country, regional and headquarters levels will work with concerned stakeholders and Implementing Partners to address and resolve the concerns. Visit [www.undp.org/secu-srm](http://www.undp.org/secu-srm) for more details. The relevant form is attached at the end of the EMSF.

## 5 KEY ENVIRONMENTAL AND SOCIAL INDICATORS

152. This section identifies the key environmental and social indicators identified for the project and outlines respective management objectives, potential impacts, control activities and the environmental performance criteria against which these indicators will be judged (eg. audited).
153. This section further addresses the need for monitoring and reporting of environmental performance with the aim of communicating the success and failures of control procedures, distinguish issues that require rectification and identify measures that will allow continuous improvement in the processes by which the projects are managed.

### 5.1 CLIMATE

154. La Mojana is characterised by high climate variability. The predominant climate in the zone is humid warm weather, corresponding to zoniobioma of tropical humid forest, located between 0 -1000 metres above sea level (municipalities of Sucre, Majagual, Guaranda and sectors of Caimito, San Marcos and San Benito Abad). Relative humidity presents a bimodal behaviour with two peaks maximum: one in March of 91.31% and another in November of 89.07%. Minimum observations are also presented twice a year, firstly in July with 76.16% and the second in August with 75.09%.
155. The Mojana has two different precipitation regimes. Rainy season occur between the months of April to November and a season of less rains or prolonged dry season from December to March. The average annual precipitation of the region is 2,935mm in the last 10 years (2006-2015). Magangué and Caimito are the drier municipalities with an average rainfall of 1,818 and 1,937mm respectively. Guaranda, Nechí and San Jacinto del Cauca have the highest rainfall figures of the region, surpassing 4,000mm/year. There is a high probability of almost no rain in December and zero rainfall in January through March. *Figure 3* shows annual average rainfall across La Mojana.

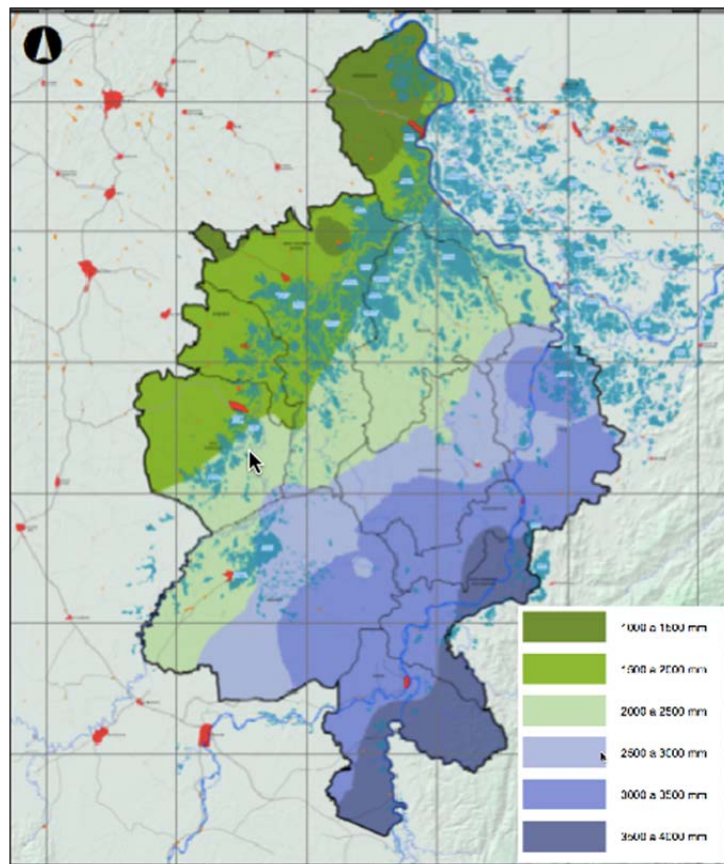


Figure 3 Annual average rainfall for La Mojana

156. The exception to this is in the north-western extremes that have tropical dry forest, characterised by dry warm climate with precipitation between 800 and 1500mm (north-western part of San Marcos, Caimito and San Benito Abad).
157. The solar brightness has a bimodal behaviour with maximum peaks in January and July and minimum records between April and October for an annual average of 5.39 hours/day, with fluctuations between 3.85 hours/day and 7.63 hours/day. The maximum brightness is observed in January, while the minimum is recorded in April.
158. Altitudinal changes in temperature determine thermal zones. Lower areas between 0 to 800 metres above sea level are normally characterised by an average annual and temperature above 24°C, and represent the 80% of the territory. Higher areas from 800 to 1800 metres above sea level have an average annual temperature that varies between 24°C and 18°C and extends in an area of 10% of the territory. Areas up to 1,800 metres above sea level are colder and temperature varies between 18°C and 12°C; after 2,800 metres above sea level, average temperature is below 12°C. Temperature doesn't have much variation during the year but variations during the day could be more than 10 degrees, especially in the higher areas. There are no clear changes of temperature due to missing number and insufficient climate generated by thirty hydrometeorological stations available in the region.
159. Climate change scenarios from 2010 to 2040, 2040 to 2070 and 2070 to 2100 forecast reductions in rainfall in most of the region of La Mojana with an average reduction of 14%, an increased frequency of extreme events. Major precipitation changes are expected in Majagual, Sucre and Achí with reductions up to 40%, while in the municipalities of San Marcos and Ayapel the precipitation will have a slight increase. Based on the climate models, the distribution of rainfall is expected to vary. In Sucre and Cordoba, no significant rainfall increases are observed, while in the department of Bolivar rain increases by 10% are expected in the coastal zone and in the southeast (Mojana areas). The department of Sucre may have an average reduction in rainfall of up to 16% compared to current reference value (1976-2005), and specifically, in the municipalities of Sucre, Majagual, and Guaranda, decreases between 20% and 30% could occur. In San Marcos and Ayapel, slight rainfall increases would be experienced.
160. The most optimistic climate change scenarios for Colombia for the periods 2011-2040, 2041-2070 and 2070-2100 forecast that average temperature increases between 1°C and 1.5°C. In scenarios when GHG emission levels increases (as is most likely), the average annual temperature in Colombia could increase gradually at 2.14°C by the end of the 21st century (year 2100). The highest temperature increases for the Period 2071-2100, are expected in the departments of Arauca, Vichada, Vaupés and Norte de Santander (+2.6°C).

## 5.2 ECOLOGY

### 5.2.1 Background

161. The La Mojana floodplain has a complex trophic network, largely dependent on flood pulses and foreign (external) inputs. Climatic and hydrological conditions and geomorphological characteristics, among others, have established highly diverse landscapes where several ecosystems are interrelated. Ecosystem diversity is represented in streams, marshes, fishing holes, zapales, footprints, patches and prairies of macrophytes, playones, natural savannas (known locally as open and enmeshed; with fragments of forest), anthropic savannas with introduced pastures and secondary forests in different successional states.
162. In the natural system kernel eleven municipalities of La Mojana, fifty ecosystem services provided by the different ecosystems of the region were identified, taking into account the types of provisioning or supply services (food, materials and minerals, related plant resources, forest cover and fauna, etc.), regulation services (drains and treatment, reproduction, shelter, etc.) and cultural services (identity, enjoyment, teaching). For the first group, 25 ecosystem services were identified, representing 50% of the total, among which there are 14 regulatory services (28% of total) and finally cultural services totalling 11 (22% of total).
163. Corpomojana’s Environmental Management Plan for the wetlands associated with the lower San Jorge River, states that there are numerous wetland types can be found in the area of La Mojana and Bajo San Jorge subregions, according to the classification proposed by RAMSAR including:
- a. Permanent rivers: San Jorge River and permanent streams;
  - b. Seasonal/intermittent/irregular rivers/streams/creeks: intermittent streams and floodplains of the Lower San Jorge;
  - c. Permanent freshwater lakes (over 8 ha);
  - d. Permanent freshwater marshes/pools (below 8 ha): Permanent marshes and freshwater marshes on inorganic soils, with emergent vegetation whose bases are below the water table for most of their growing season. In the area are fishing holes, marshes and marshes, represented mainly in the municipalities of Caimito, San Marcos, San Benito Abad and Sucre;
  - e. Shrub-dominated wetlands: shrub marshes and weeds on inorganic soils; especially in the municipalities of Majagual, San Marcos, Caimito and San Benito Abad;
  - f. Freshwater, tree-dominated wetlands: seasonal flood forest. Currently represented in very small areas in the municipalities of San Marcos, Sucre, and San Benito Abad; and
  - g. Seasonal/intermittent freshwater marshes/pools on inorganic soils: seasonal freshwater marshes.
164. In the whole La Mojana, there is a high number of species in critical condition these include: resident and migratory birds (*Dendrocygna spp* (pisingo), *Ajaia ajaja*, *Anas discor* (barraquete), *Chauna chavarría* (chavarrí), reptiles: *Trachemys scripta callirostris* (hicotea), *Cayman crocodylus fuscus*, aquatic mammals: *Hidrochaerus hidrochaeris isthmus* (ponche), *Otter longicaudis* (nutria), *Trichechus manatus* (manatee) and terrestrial mammals: *Odocoileus virginianus*, *Agouti paca* (Guartinaja), *Alouatta Caraya* (Howler monkey), *Cebus apella*, *Mazama spp.* (Deer), which were affected by the floods presented in the period 2010-2012 on the right bank of the San Jorge River.
165. According to the IPPCC report (2014), freshwater ecosystems are considered to be among the most threatened on the planet. Fragmentation of rivers and alteration of natural flow regimes have led to major impacts on freshwater biota. Floodplains and wetland areas have become occupied for intensive urban and agricultural land use to the extent that many are functionally disconnected from their rivers. As a direct consequence of these and other impacts, freshwaters have some of the highest rates of extinction of any ecosystem for those species groups assessed for the IUCN Red List.
166. Various studies and reports on La Mojana suggest there are a variety of causes that lead to environmental degradation and water resources of the region and, therefore, of the ecosystem services, have been identified. Among those main causes, there is the socio-environmental lack of knowledge which has created a false perception of the region as a highly productive area from the economic point of view, promoting the development of permanent agricultural and livestock activities in flood-prone areas and the location of human settlements is unsuitable places, the over-exploitation of natural resources (fishing, mining, agriculture, livestock), disorderly occupation of the territory, the concentration

of land ownership in few people and conflicts over land use; the introduction of exotic species such as buffaloes (*Bubalus bubalis*) that is altering the soil of wetlands using the marsh as grazing site, infrastructure projects that alter ecosystem dynamics, poor management of solid and liquid waste, institutional weakness (autonomous corporations, mayors, governor's offices, National Government); and low community involvement and little environmental education.

### 5.2.2 Performance Criteria

167. The following performance criteria are set for the works undertaken as part of the project:

- a. no clearance of vegetation outside of the designated clearing boundaries particularly within wetlands;
- b. no death to native fauna as a result of clearing and rehabilitation activities;
- c. revegetate areas as soon as practicable after all works;
- d. no deleterious impacts on aquatic environments and terrestrial habitats;
- e. no introduction of new weed species as a result of construction activities ; and
- f. no increase in existing weeds and/or proliferation within or outside of any project footprint as a result of construction activities.

### 5.2.3 Monitoring

168. A flora and fauna monitoring program will be implemented (Table 4).

169. Weed monitoring will be undertaken and appropriate action taken in the event of alien or noxious species being identified.

170. The delivery organisation will when undertaking works, compile a weekly report to NAF outlining:

- a. any non-conformances to this EMSF;
- b. the areas that have been rehabilitated during the preceding week; and
- c. details of the corrective action undertaken.

### 5.2.4 Reporting

171. All flora and fauna monitoring results and/or incidents will be tabulated and reported as outlined in the EMSF. The NAF must be notified in the event of any suspected instances of death to native fauna and where vegetation is detrimentally impacted.

Table 4 Flora and Fauna Management Measures

Issue	Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
FF1. Habitat loss and disturbance of fauna	FF1.1 Limit vegetation clearing and minimise habitat disturbance through adequate protection and management of retained vegetation.	During construction	Camp officer	Daily and maintain records
	FF1.2: Minimise noise levels and lighting intrusion throughout construction and operation in the vicinity of any sensitive locations.	During construction	Camp officer	Daily and maintain records
	FF1.3: Ensure that all site personnel are made aware of sensitive fauna/habitat areas and the requirements for the protection of these areas.	During construction	Contractor	Daily and maintain records
	FF1.4 Minimise disturbance to on-site fauna and recover and rescue any injured or orphaned fauna during construction and operation.	During construction	Contractor	Daily and maintain records, report
	FF1.5 Where necessary and practicable, relocate native fauna to the closest wetland where works are being undertaken	During construction	Contractor	Daily and maintain records, report
	FF1.6 Where earthworks are undertaken, rehabilitate the site with local provenance vegetation that provides habitat for fauna	During and post construction	Contractor	Daily and maintain records, report
FF2. Introduced flora and weed species	FF2.1: Implement an ESCP to reduce the spread of weeds through erosion and sediment entering any waterways and therefore spreading.	Pre and during construction	Contractor	Maintain records
	FF2.2: Revegetate disturbed areas using native and locally endemic species that have high habitat value.	During construction	Camp officer	As required and maintain records
	FF2.3: Minimise disturbance to mature remnant vegetation, particularly canopy trees.	During construction	Camp officer	Daily and maintain records
	FF2.4: Seed is to be weed free	Operation	Camp Officer	Maintain records

Issue	Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
FF2. Introduced flora and weed species	FF2.5: Small trees and shrubs shall be removed in preference to large trees.	During construction	Site Supervisor	Daily and maintain records
	FF2.6: Environmental weeds and noxious weeds within the project footprints shall be controlled.	During and post construction	Camp officer	Weekly and maintain records

### 5.3 GROUNDWATER

#### 5.3.1 Background

172. Surface water and ground water sources are the most important sources in La Mojana. Aqueduct coverage in urban areas is about 47%. Municipal Development Plans report that coverage of potable water has increased in the last years; however access is not uniform in the region. While municipalities of Magangué provide drinking services to 80% of its populations, more than 80% of the population of Achí, Ayapel and San Jacinto del Cauca (97%,) has no access to drinking water
173. Ground water systems are the main alternative for population located in nuclei rural areas. Numerous micro-aqueducts are operating based on wells from 60 to 120m deep and 150 to 200mm in diameter. These provide water to between 60 – 100 families by pipes and bombs that pumps water to an elevated tank to storage water and distribute directly to each household.
174. While groundwater is used as a potable water source, there is limited information on the quality and quantity of the aquifers. It is thought that some of the aquifers may be impacted by mercury that comes from runoff from mining activities in the south west of Lo Mojana.

#### 5.3.2 Performance Criteria

175. The following performance criteria are set for the project:
- a. no significant decrease in the quality and quantity of groundwater as a result of construction and operational activities in proximity to the projects;
  - b. effective implementation of site-specific EDSCPs, CSDMP and other measures to protect groundwater. A draft outline is included in Annexure Five.
176. By following the management measures set out in the EMSF the project will not have a significant impact on water quality across the broader area.

#### 5.3.3 Monitoring

177. Refer to Table 5 for the monitoring requirements for groundwater.
178. During the project, groundwater quality should be assessed initially and then at least every two months. Initial assessment should cover a wide range of parameters (eg depth to water, pH, DO, conductivity, nitrates, phosphates, faecal coliforms, heavy metals, turbidity, hydrocarbons) to provide a baseline and to confirm suitability for intended use. Subsequent monitoring parameters will be determined on need.
179. Ongoing monitoring should form part of the operation of the boreholes.

#### 5.3.4 Reporting

180. All water quality monitoring results and/or incidents will be tabulated and reported as outlined in the EMSF. The NAF must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to water quality is exceeded.

Table 5 Groundwater management measures

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
GW 1: Increase of gross pollutants, hydrocarbons, metals and other chemical pollutants into the groundwater environment.	GW1.1: Conduct regular surface and groundwater quality monitoring in location where the groundwater is likely to be impacted, including assessing the changes to groundwater quality.	All phase	Camp officer	Weekly and as required with reporting to NAF and UNDP
	GW1.2: Prevent contaminated surface water from entering aquifers via boreholes and wells, particularly during works on the boreholes and associated infrastructure - protect from runoff and flooding and keep surrounds clean.	All phases	All Personnel	Weekly
	GW1.3: Designated areas for storage of fuels, oils, chemicals or other hazardous liquids should have compacted impermeable bases and be surrounded by a bund to contain any spillage. Refuelling to be undertaken in areas away from water systems.	All phase	All Personnel	Weekly with reporting to NAF and UNDP
	GW1.4: Check all vehicles, equipment and material storage areas daily for possible fuel, oil and chemical leaks. Undertake refuelling at designated places away from water systems.	All phases	All Personnel	Daily and maintain records
	GW1.5: Minimise the use of herbicides, pesticides and other chemicals and use only biodegradable herbicides that have minimal impact on water quality and fauna. Use only as per directions	All phases	All Personnel	Weekly reporting to NAF and UNDP

### 5.4 SURFACE WATER

#### 5.4.1 Background

181. The health of natural ecosystems have direct consequences on ecological functions and services, related to fisheries, water supply, transportation, human health and absorption of potential effects of floods and dry periods.
182. Human activities such as unsustainable production practices, contamination of water sources through insufficiently treated or untreated spills from human, agricultural and industrial activities, deforestation, overexploitation, pollution, and the spread of invasive alien species has degraded wetland ecosystem. Further, sedimentation and the loss and infilling of stream channels have exacerbated wetlands degradation processes reducing water infiltration capacity and increasing run-off, flows speed and potential of damage.
183. Water quality studies across Colombia provide evidence that the quality of surface water resource varies considerably. Low availability of dissolved oxygen and high levels of total suspended solids, coliforms, hydrocarbons and orthophosphates are the main factors affecting water quality. However, there is limited water quality data available for La Mojana and as such, a conservative approach should be taken when undertaking any works under this ESMF.
184. There is the potential for mercury to be present in surface water. Previous studies on soil have shown elevated levels of mercury. Research was undertaken in 2008 of total mercury (T-Hg) and methylmercury (MeHg) concentrations in the muscle tissue of 16 fish species consumed in La Mojana. The research indicated that higher T-Hg and MeHg concentrations were detected in carnivorous species (T-Hg =  $0.371 \pm 0.172 \mu\text{g}$ ) than in non-carnivorous fish (T-Hg =  $0.155 \pm 0.108\mu\text{g}$ ). In the different species, mercury was present almost completely as the methylated form, with percentages between 80.5 and 98.1% (mean  $92.0 \pm 3.4\%$ ). In 13.5% of fish-tissue samples T-Hg concentrations exceeded the maximum level recommended by the World Health Organization for human consumption ( $\text{Hg} = 0.5 \mu\text{g g}^{-1}$  fresh wt). Although mean T-Hg concentrations in all fish samples ( $0.269 \pm 0.181 \mu\text{g g}^{-1}$  fresh wt) did not exceed this limit, risk assessment suggested that the consumption of  $0.12 \text{ kg}$  of fish  $\text{day}^{-1}$  could increase the risk of mercury poisoning to people living in La Mojana.
185. Climate change induced changes in precipitation have substantially alter ecologically important attributes of flow regimes in many rivers and wetlands and exacerbate impacts from human water use in developed river basins (IPCC 2014). As surface and ground water are the main sources in La Mojana, local populations are extremely vulnerable to periodic prolonged dry seasons, determined by El Niño events and temperature increases. Past El Niño events resulted in water shortages, electricity rationed and health problems due to poor water quality. This puts significant strain on water resources.
186. Climate change predictions indicate that La Mojana will receive less rainfall and increased inter-annual variability will most likely increase low-flow and dry-spell duration, leading to reduced water quality and availability, the reduction or loss of natural populations of permanent terrestrial and aquatic fauna and flora aquatic and altering freshwater food webs. Temperature increases, changes in the hydrological regimes, combined with unsustainable land use practices could lead drying out processes of permanent wetlands and channels, as is already evident in some areas of La Mojana.
187. The project aims to rehabilitate wetland ecosystem and restore stream flow, with enhanced biodiversity, to provide adequate and good quality water for all needs of these ecosystems. By improving water quality, these systems will become more resilient to climate induced extreme events.
188. No specific baseline data has been collected across La Mojana; however, prior to the commencement of works, baseline data will be collected to develop a suitable monitoring regime.

#### 5.4.2 Performance Criteria

189. The following performance criteria are set for the construction of the projects:
  - a. no significant decrease in water quality as a result of construction and operational activities particularly in the wetlands;
  - b. water quality shall conform to any approval conditions stipulated by UNDP, NAF and/or other government departments, or in the absence of such conditions follow a 'no worsening' methodology;

- c. no offsite impact will occur; and
- d. effective implementation of site-specific EDSCPs and CSDMPs. A draft outline is included in Annexure Five.

### 5.4.3 Monitoring

190. Having water of a quality that is fit for purpose is important. Water quality can affect plant growth, livestock health, soil quality, farm equipment and domestic use. The quality of a water source is also variable depending upon weather and external inputs.
191. Evaporation increases the concentrations of salts while a flush of water dilutes salts but may increase sediment and fertilisers, and manure or nutrient runoff. Further, there is the potential for impacts of mercury from soils.
192. Monitoring should be done regularly and more frequently in summer or in periods of prolonged moisture stress.
193. Table 6 outlines the monitoring required.

### 5.4.4 Reporting

194. All water quality monitoring results and/or incidents will be tabulated and reported as outlined in the EMSF. The NAF must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to water quality is exceeded.

Table 6 Water Quality Management Measures

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
W1: Elevated suspended solids and other contaminants in surface water systems.	W1.1: Develop and implement a site specific EDSCP and CSDMP to address drainage control, sediment and erosion controls and stockpiling of materials including soil during construction of all components of the projects. EDSCP and CSDMP measures to be inspected regularly to ensure all devices are functioning effectively.	Pre Earthworks	Camp officer	Initial set up and then as required with reporting to NAF and UNDP
	W1.2: Designated areas for storage of fuels, oils, chemicals or other hazardous liquids should have compacted impermeable bases and be surrounded by a bund to contain any spillage. Refuelling to be undertaken in areas away from water systems.	All phases	All Personnel	Weekly with reporting to NAF and UNDP
	W1.3: Conduct regular surface water quality monitoring in location where the surface water is likely to be impacted including assessing the changes to surface water quality.	All phases	Camp officer	Weekly and as required with reporting to NAF and UNDP
	W1.4: Schedule works in stages to ensure that disturbed areas are revegetated and stabilised progressively and as soon as practicable after completion of works.	Avoid undertaking bulk earthworks during wet season	Camp officer and NAF	Maintain records
	W1.5: Construction materials will not be stockpiled in proximity to aquatic environment that may allow for release into the environment. Construction equipment will be removed from in proximity to the aquatic environment at the end of each working day or if heavy rainfall is predicted	All phases	Camp officer	Maintain daily records
	W1.6: Ensure all residual contaminated sediment is not released into the environment.	All phases	Camp officer	Maintain daily records

### 5.5 AIR QUALITY

#### 5.5.1 Background

195. No specific air quality assessment has been undertaken in the development of this ESMF. Due to the limited urban development and heavy industry, it is assumed that environmental air quality is relatively good.
196. All construction activities have the potential to cause air quality nuisance.
197. The project areas are predominantly village or rural in character. Existing air quality reflects those environments, with dust being the main air quality nuisance.
198. Workers involved in construction and operation activities should be familiar with methods minimising the impacts of deleterious air quality and alternative construction procedures as contained in GoC laws, decrees or good international industry practice.

#### 5.5.2 Performance Criteria

199. The following performance criteria are set for the construction of the projects:
- a. release of dust/particle matter must not cause an environmental nuisance;
  - b. undertake measures at all times to assist in minimising the air quality impacts associated with construction and operation activities; and
  - c. corrective action to respond to complaints is to occur within 48 hours.

#### 5.5.3 Monitoring

200. A standardised air monitoring program has been developed for the projects (Table 7). The program is subject to review and update at least every two months from the date of issue. Importantly:
- a. the requirement for dust suppression will be visually observed by site personnel daily and by NAF and UNDP staff when undertaking routine site inspections; and
  - b. vehicles and machinery emissions – visual monitoring and measured when deemed excessive.

#### 5.5.4 Reporting

201. All air quality monitoring results and/or incidents will be tabulated and reported as outlined in the EMSF. The NAF must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to air quality is exceeded.

Table 7 Air Quality Management Measures

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
A.1 Increase in dust levels at sensitive receptors	A1.1: Implement effective dust management measures in all areas during design, construction and operation.	Pre and during construction	All Personnel	Daily and maintain records
	A1.2: Restrict speeds on roads and access tracks.	During construction	Camp officer	Daily and maintain records
	A1.3: Manage dust/particulate matter generating activities to ensure that emissions do not cause an environmental nuisance at any sensitive locations	During construction	Camp officer	Daily and maintain records
	A1.4: Construction activities should minimise risks associated with climatic events (check forecasts).	During construction	Camp officer	Daily and maintain records
	A1.5: Implement scheduling/staging of proposed works to ensure major vegetation disturbance and earthworks are minimised.	Entire construction	Contractor	Daily and maintain records
	A1.6: Locate material stockpile areas as far as practicable from sensitive receptors. Cover if appropriate.	During construction	Camp officer	Daily and maintain records
	A1.7: Source sufficient water of a suitable quality for dust suppression activities complying with any water restrictions.	During construction	Camp officer	Daily and maintain records
	A1.8: Schedule revegetation activities to ensure optimum survival of vegetation species.	During construction	Camp officer	Maintain records
	A1.9: Rubbish receptacles should be covered and located as far as practicable from sensitive locations	During construction	Camp officer	Maintain records

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
A2. Increase in vehicle / machinery emissions	A2.1 Ensure vehicles/machines are switched off when not in use.	During construction	Camp officer	Daily and maintain records
	A2.2 Ensure only vehicles required to undertake works are operated onsite.	During construction	Camp officer	Daily and maintain records
	A2.3 Ensure all construction vehicles, plant and machinery are maintained and operated in accordance with design standards and specifications.	During construction	Camp officer	Daily and maintain records
	A2.4 Develop and implement an induction program for all site personnel, which includes as a minimum an outline of the minimum requirements for environmental management relating to the site.	Pre and during construction	Contractor	Daily and maintain records
	A2.5 Locate construction vehicle/plant/equipment storage areas as far as practicable from sensitive locations.	During construction	Camp officer	Daily and maintain records
	A2.6 Direct exhaust emissions of mobile plant away from the ground.	During construction	Camp officer	Daily and maintain records

### 5.6 NOISE AND VIBRATION

#### 5.6.1 Background

202. No specific noise assessment has been undertaken in the development of this ESMF. Due to the limited urban development and heavy industry, it is assumed that environmental noise is relatively low.
203. All construction and operation activities have the potential to cause noise nuisance. Vibration disturbance to nearby residents and sensitive habitats is likely to be caused through the use of vibrating equipment. Blasting is not required to be undertaken as part of this project.
204. The use of machinery or introduction of noise generating facilities could have an adverse effect on the environment and residents if not appropriately managed.
205. Contractors involved in construction activities should be familiar with methods of controlling noisy machines and alternative construction procedures as contained within specific GoC legislation or in its absence, good international industry practice may be used if the legislation has not been enacted.
206. The detail, typical equipment sound power levels, provides advice on project supervision and gives guidance noise reduction. Potential noise sources during construction may include:
- excavation equipment for the removal of sediment and rehabilitation of wetlands and river channels;
  - excavation and other equipment involved in the installation of rainwater harvesting systems;
  - equipment used for the rehabilitation of groundwater bores;
  - delivery vehicles;
  - pumps; and
  - power tools and compressors.

#### 5.6.2 Performance Criteria

207. The following performance criteria are set for the construction of the projects:
- noise from construction and operational activities must not cause an environmental nuisance at any noise sensitive place;
  - undertake measures at all times to assist in minimising the noise associated with construction activities;
  - no damage to off-site property caused by vibration from construction and operation activities; and
  - corrective action to respond to complaints is to occur within 48 hours.

#### 5.6.3 Monitoring

208. A standardised noise monitoring program has been developed for the project (Table 8). The program is subject to review and update at least every two months from the date of issue. Importantly, the site supervisor will:
- ensure equipment and machinery is regularly maintained and appropriately operated; and
  - carry out potentially noisy construction activities during 'daytime' hours only.

#### 5.6.4 Reporting

209. All noise monitoring results and/or incidents will be tabulated and reported as outlined in the EMSF. The NAF must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to noise is exceeded

Table 8 Noise and Vibration Management Measures

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
N1: Increased noise levels	N1.1: Select plant and equipment and specific design work practices to ensure that noise emissions are minimised during construction and operation including all pumping equipment.	All phases	Contractor	Maintain records
	N1.2: Specific noise reduction devices such as silencers and mufflers shall be installed as appropriate to site plant and equipment.	Pre and during construction	Contractor	Maintain records
	N1.3 Minimise the need for and limit the emissions as far as practicable if noise generating construction works are to be carried out outside of the hours: 7am-5.30pm	Construction phase	All Personnel	Daily and maintain records
	N1.4: Consultation with nearby residents in advance of construction activities particularly if noise generating construction activities are to be carried out outside of 'daytime' hours: 7am-5.30pm.	Construction phase	All Personnel	Daily and maintain records
	N1.5 The use of substitution control strategies shall be implemented, whereby excessive noise generating equipment items onsite are replaced with other alternatives.	Construction phase	All Personnel	Daily and maintain records
	N1.6 Provide temporary construction noise barriers in the form of solid hoardings where there may be an impact on specific residents.	Construction phase	Camp officer	Daily and maintain records
	N1.7 All incidents complaints and non-compliances related to noise shall be reported in accordance with the site incident reporting procedures and summarised in the register.	Construction phase	Camp officer	Maintain records
	N1.8 The contractor should conduct employee and operator training to improve awareness of the need to minimise excessive noise in work practices through implementation of measures.	Pre and during construction	Contractor	Maintain records

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
N2. Vibration due to construction	N2.1: Identify properties, structures and habitat locations that will be sensitive to vibration impacts resulting from construction and operation of the project.	Pre and during construction	Contractor	Maintain records
	N2.2: Design to give due regard to temporary and permanent mitigation measures for noise and vibration from construction and operational vibration impacts.	Pre-construction	Contractor	Maintain records
	N2.3: All incidents, complaints and con-compliances related to vibration shall be reported in accordance with the site incident reporting procedures and summarised in the register.	Construction phase	Camp officer	Maintain records
	N2.4: During construction, standard measure shall be taken to locate and protect underground services from construction and operational vibration impacts.	Construction phase	Camp officer	Maintain records

### 5.7 EROSION, DRAINAGE AND SEDIMENT CONTROL

#### 5.7.1 Background

210. The project will undertake significant earth works for the restoration of 41,532 hectares of wetland ecosystems and the removal of sediment from channels. Therefore the topography and soils within the region that will be disturbed as a result of the project need to be considered.

#### 5.7.2 Topography

211. The La Mojana region, while considered a basin, is essentially a part of the larger region called Depression Moposina (Depression of Mompox, this being part of Magdalena – Cauca Rivers basin. It is a fluvio-deltaic plan formed by the San Jorge, Cauca and Magdalena Rivers, with the Magdalena branch called Brazo de Loba. Over time, the topography that ranges from 0 metres above sea level to over 1800 metres above sea level and the presence of the large rivers has generated complex and ever changing wetland ecosystems, interconnecting channels and other aspects.

#### 5.7.3 Soils

212. The predominant soils of the La Mojana are inceptisols, entisols, oxisols and vertisols. These soil types are highly erodible.

213. Soil erosion depends on several parameters such as type of soil, slope, vegetation, the nature of topography and rainfall intensity. The loss of soil stability and soil erosion can take place due to the removal of vegetation cover, and numerous construction activities. It can cause the loss of soil fertility and induce slope instability. River channel works in particular could result in temporal blockage or alteration of already disturbed flow paths causing changes in the drainage patterns in the area. Effective and efficient mitigation measures can not only reduce, but could improve the conditions over the existing conditions.

214. Rainfall can have a significant impact on the ability to manage environmental impacts, particularly in terms of managing drainage, erosion and sedimentation. Therefore activities which involve significant disturbance of soil or operating with drainage lines and waterways should be planned to be undertaken during the driest months. It is also important to ensure that all required erosion and sediment control mechanisms are in place before the onset of the wet season.

215. It is understood that potentially due to mining in upland areas; runoff and sediment may contain high levels of metals and for example, mercury. Mercury is a pollutant that is characterised by its ease of bioaccumulation and biomagnification, so continuous exposure to the contaminant can cause adverse effects to human health

216. UNDP Universidad de Cordoba carried out a study of concentration of mercury in sediments and soil in La Mojana. Mercury concentrations in sediments range from 25.3 to 350.3 mg/kg Hg. The analysis showed lower levels in the towns of Florez and Cuenca.

217. Results from the UNDP Universidad de Cordoba indicated that the levels of mercury in rice and other crops was highest in the roots, stem and followed grains in the rice plants. Concentrations above 30 µgHg/kg for grass plants and also Auyama were observed. According to the World Health Organisation, a maximum weekly intake of total mercury 0.3mg/week would be established for people consuming crops grown in La Mojana. Consideration should also be given to the research undertaken on fish of La Mojana which showed high levels of mercury.

218. The MADS has issued a Technical Guide for Soil Sampling, in which established the minimum standards that companies must follow with regards to discharges to the soil. Prior to the movement of any soils, the soil will be tested using the Guide and/or consistent with good international industry practice. If contamination is found, the soil should be remediated consistent with good international industry practice prior to the sediment being moved to another location.

219. The GoC has undertaken a number of interventions including strengthening national regulations and is taking measures to manage the mercury contamination at both a national and local level. Part of this includes enforcement of the 2013, Law 1658 which established the phasing out and elimination of the use of mercury in mining and other industrial sectors. The Law mandates the banning of the use of mercury in mining activities by 2018. This law is complemented by the 2014 *National Management Plan*

for Mercury<sup>1</sup> that is being led by the Ministry of Environment and Sustainable Development (MADS) who will be actively involved in the project. The Plan established a mandatory national monitoring and inventory systems and guidance on developing local and sectorial mercury action plans. The development of the National Management Plan resulted in the creation of the mercury national management system (SINEGEM).

220. Government actions in the field for La Mojana include government surveillance and management of mining activities in Chocó, Cauca, Nariño, Antioquia and Bajo Cauca (located upstream La Mojana). This includes the formulation of sectoral plans, management actions and workshops with communities, technical assistance for technological reconversion and the creation of a portal on mercury management and monitoring that is housed within the MADS website.
221. Under the Mojana Action Plan, the NAF worked with the Universidad de Cordoba to develop a comprehensive heavy metals monitoring campaign for the eleven municipalities. The active campaign includes taking samples on water, sediments, plankton, rice and fishes to define the baseline in terms of heavy metals concentrations at La Mojana and design a heavy metals monitoring system. Current amendments to the campaign will be active in November of 2017. The campaign provides specific mitigation measures for each municipality that are being implemented by the Government. The project will be benefitted from this information.
222. These initiatives are also supported by management practices developed by the Ministry of Mines and Energy (MME) which has a practical program for the elimination of mercury use in processes of gold in different zones of the country. The program includes training the miners on the application of clean technologies that improve productivity and at the same time to eliminate the consumption of mercury, including formalizing the traditional miners for the fulfilment of the environmental and technical standards of Colombia.
223. In terms of specific projects, the Government developed a “Strategic Sectoral Plan for the Elimination of the Use of Mercury”. at the Plan focuses on reducing the use of mercury in gold, through four strategies including
  - a. Institutional strengthening;
  - b. Knowledge Management;
  - c. Management for change; and
  - d. Education and communication.
224. The implementation of the plan has a budget of \$83,639,202,800 pesos (US\$27.000.000) financed by the General Budget of the Government. Additional resources have been provided through international cooperation with local and sectorial protocols.
225. The Government is also working with UNIDO in conjunction with the MADS and the National Center for Cleaner Production and Environmental Technologies in implementing a Draft National Plan. The Plan has four (4) components that include the establishment of a national profile on mercury to define intervention plans. This project, which commenced in 2015;(complemented with a USD 6 million GEF project that will be implemented by UNDP, the MADS and the MME) has commenced the elimination of mercury use in all in the Colombian ASGM sector. The project has provided technical assistance, technology transfer, establishment of public-private partnerships, and facilitating access to finance mercury-free technology.
226. All of the above interventions are critical to the elimination of mercury, which will have significant positive benefits to the project. It is also important to note Constanza et al. 1997; Zedler, 2003; Jenkins et al. 2010 as examples only, regarding the importance of wetland ecosystem service for the wastewater deuration, pollution control and detoxification. Wetland ecosystem provide ideal conditions for the removal or breakdown of different compounds. Rai (2008) provides research on phytoremediation using wetland plants. Rai (2008) highlights biogeochemical processes in wetland which remove heavy metals from industrial effluents that include: binding to soils, sediments and particular matter, precipitation as insoluble salts, uptake by bacteria, algae and plants as well as harvesting and removal of biomass.

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<sup>1</sup> [http://www.ambientalex.info/infoCT/plan\\_unico\\_nacional\\_de\\_mercurio.pdf](http://www.ambientalex.info/infoCT/plan_unico_nacional_de_mercurio.pdf)

227. Based on the existing and proposed interventions by Government, it is highly likely that upstream impacts will be eliminated and mercury will not cause significant impacts on the restored wetland and channel ecosystems. Notwithstanding, site specific CSDMP will be developed and implemented as part of the project.

### 5.7.4 Performance Criteria

228. The following performance criteria are set for the projects:

- a. no build-up of sediment in the aquatic environments and/or surface and/or groundwater as a result of construction and operation activities;
- b. no degradation of water quality on or off site of all projects;
- c. all water exiting the project site and/or into groundwater systems is to have passed through best practice erosion, drainage and sediment controls;
- d. no soil to be moved off site that is contaminated; and
- e. effective implementation of site-specific EDSCP and CSDMP. A draft outline is included in Annexure Five.

229. By following the management measures set out in the EMSF, construction and operation activities of the projects will not have a significant impact as a result of sedimentation across the broader area.

### 5.7.5 Monitoring

230. A standardised sediment control monitoring program has been developed for the projects (Table 9). The program is subject to review and update at least every two months from the date of issue. The camp officer will be required to:

- a. conduct site inspections on a weekly basis or after rainfall events exceeding 20mm in a 24 hour period;
- b. continually sample soils for potential contamination;
- c. develop a site-specific checklist to document non-conformances to this EMSF or any applicable EDSCPs and CSDMP. A draft outline is included in Annexure Five; and
- d. communicate the results of inspections and/or water quality testing and ensure that any issues associated with control failures are rapidly rectified and processes are put in place to ensure that similar failures are not repeated.

### 5.7.6 Reporting

231. All sediment and erosion control monitoring results and/or incidents will be tabulated and reported as outlined in the EMSF. The NAF must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to erosion and sediment control is exceeded.

Table 9 Erosion, Drainage and Sediment Control Measures

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
E1: Loss of soil material and sedimentation to the surface and/or groundwater systems from site due to earthwork activities	E1.1: Develop and implement EDSCP and CSDMP for any surface works, embankments and mechanical restoration work, water crossings and stormwater pathways.	Construction phase	All Personnel	Maintain records
	E1.2: Ensure that erosion and sediment control devices are installed, inspected and maintained as required.	Construction phase	All Personnel	Maintain records
	E1.3: Schedule/stage works to minimise cleared areas and exposed soils at all times.	Pre and during construction	Camp officer	Maintain records
	E1.4: Incorporate the design and location of temporary and permanent EDSCP and CSDMP measures for all exposed areas and drainage lines. These shall be implemented prior to pre-construction activities and shall remain onsite during work	Pre and during construction	Camp officer	Maintain records
	E1.5: Schedule/stage proposed works to ensure that major vegetation disturbance and earthworks are carried out during periods of lower rainfall and wind speeds.	Pre and during construction	Camp officer	Maintain records
	E1.6: Strip and stockpile topsoil for use during revegetation and/or place removed soils back on to agricultural lands.	Pre and during construction	Camp officer	Maintain records
	E1.7: Schedule/stage works to minimise the duration of stockpiling topsoil material. Vegetate stockpiles if storage required for long periods.	During construction	All Personnel	Maintain records
	E1.8: Locate stockpile areas away from drainage pathways, waterways and sensitive locations.	Pre and during construction	Camp officer	Maintain records

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
E1: Loss of soil material and sedimentation to the surface and/or groundwater systems from site due to earthwork activities	E1.9: Design stormwater management measures to reduce flow velocities and avoid concentrating runoff.	All phases	Camp officer	Maintain records
	E1.10: Include check dams in drainage lines where necessary to reduce flow velocities and provide some filtration of sediment. Regularly inspect and maintain check dams.	Pre and during construction	Camp officer	Maintain records
	E1.11: Mulching shall be used as a form of erosion and sediment control and where used on any slopes (dependent on site selection), include extra sediment fencing during high rainfall.	During construction	All Personnel	Maintain records
	E1.12: Bunding shall be used either within wetlands or stream channels or around sensitive/dangerous goods as necessary.	During construction	All Personnel	Maintain records
	E1.13: Grassed buffer strips shall be incorporated where necessary during construction to reduce water velocity.	During construction	Camp officer	Maintain records
	E1.14: Silt fences or similar structures to be installed to protect from increased sediment loads.	During construction	Contractors	Maintain records
E2: Soil Contamination	E1.15: Excess sediment in all erosion and sediment control structures (eg. sediment basins, check dams) shall be removed when necessary to allow for adequate holding capacity.	During construction	Contractors	Maintain records
	E2.1: If contamination is uncovered or suspected including outside of the project footprints, undertake the relevant testing and conduct a Stage 1 preliminary site contamination investigation. The contractor should cease work if previously unidentified contamination is encountered and activate management procedures and obtain advice/permits/approval (as required). This should be undertaken through the CSDMP.	Construction phase	All Personnel	Daily and maintain records

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
E2: Soil Contamination	E2.2: Adherence to best practice for the removal and disposal of contaminated soil/material from site (if required), including contaminated soil within the project footprints.	Construction phase	All Personnel	Daily and maintain records
	E2.3: Drainage control measures to ensure runoff does not contact contaminated areas (including contaminated material within the project footprints) and is directed/diverted to stable areas for release.	Construction phase	All Personnel	Daily and maintain records
	E2.4: Avoid importing fill that may result in site contamination and lacks accompanying certification/documentation. Where fill is not available through on site cut, it must be tested in accordance with geotechnical specifications.	Construction phase	All Personnel	Daily and maintain records
E3: Disposal of excess soil/silt	E3.4: Soil and silt removed from channels and wetlands during rehabilitation/maintenance is to be beneficially reused eg composted, returned to farm land for home gardens etc. Soil and silt should be tested to confirm suitability for proposed use	Construction and operation phases	NAF	Maintain records

### 5.8 WASTE MANAGEMENT

#### 5.8.1 Background

232. As the implementing agency, the NAF advocate good waste management practice. The preferred waste management hierarchy and principles for achieving good waste management is as follows:
- waste avoidance (avoid using unnecessary material on the projects);
  - waste re-use (re-use material and reduce disposing) including sediment from the rehabilitation of the wetlands and stream channels;
  - waste recycling (recycle material such as cans, bottles, etc.); and
  - waste disposal (all petruscible and/or contaminated waste to be dumped at approved landfills).
233. The key waste streams generated during project's activities are likely to include residual sediment, potential contaminated sediment and construction wastes such as:
- the excavated wastes unsuitable for reuse during earthworks;
  - wastes from construction equipment maintenance. Various heavy vehicles and construction equipment will be utilised for the duration of the project. Liquid hazardous wastes from cleaning, repairing and maintenance of this equipment may be generated. Likewise leakage or spillage of fuels/oils within the site needs to be managed and disposed of appropriately;
  - non-hazardous liquid wastes will be generated through the use of workers' facilities such as toilets; and
  - general wastes including scrap materials and biodegradable wastes.
234. Workers involved in activities should be familiar with methods minimising the impacts of clearing vegetation to minimise the footprint to that essential for the works and rehabilitate disturbed areas. By doing these activities, the projects should minimise the impact of waste generated by the project.

#### 5.8.2 Performance Criteria

235. The following performance criteria are set for the construction of the projects:
- waste generation is minimised through the implementation of the waste hierarchy (avoidance, reduce, reuse, recycle);
  - no litter will be observed within the project area or surrounds as a result of activities by site personnel;
  - no complaints received regarding waste generation and management;
  - any waste from on-site portable sanitary facilities will be sent off site for disposal by a waste licensed contractor; and
  - waste oils will be collected and disposed or recycled off-site, local oil companies or shipped for recycling.

#### 5.8.3 Monitoring

236. A waste management monitoring program has been developed for the projects (Table 10). The program is subject to review and update at least every two months from the date of issue.

#### 5.8.4 Reporting

237. The NAF as implementing agency must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to waste is exceeded.

Table 10 Waste Management Measures

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
WT1: Production of wastes and excessive use of resources	WT1.1: Preference shall be given to materials that can be used to construct the project that would reduce the direct and indirect waste generated.	Pre and during construction	Contractor	Maintain records
	WT1.2: Daily waste practices shall be carried out unless these are delegated to the activities of external waste management bodies.	During construction	Camp officer	Daily and maintain records
	WT1.3: The use of construction materials shall be optimised and where possible a recycling policy adopted.	During construction	Camp officer	Weekly and maintain records
	WT1.4: Separate waste streams shall be maintained at all times i.e. general domestic waste, construction and contaminated waste. Specific areas on site shall be designated for the temporary management of the various waste streams.	During construction	Camp officer	Weekly and maintain records
	WT1.5: Any contaminated waste shall be disposed of at an approved facility.	During construction	Camp officer	Weekly and maintain records
	WT1.6: Recyclable waste (including oil and some construction waste) shall be collected separately and disposed of correctly.	During construction	Camp officer	Weekly and maintain records
	WT1.7: Waste sites shall be sufficiently covered to ensure that wildlife does not have access.	During construction	Camp officer	Daily
	WT1.8: Disposal of waste shall be carried out in accordance with GoC requirements.	During construction	Camp officer	Weekly and maintain records
	WT1.9: Fuel and lubricant leakages from vehicles and plant shall be immediately rectified.	During construction	Camp officer	Daily and maintain records

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
WT1: Production of wastes and excessive use of resources	WT1.10: Major maintenance and repairs shall be carried out off-site whenever practicable.	During construction	Camp officer	Weekly and maintain records
	WT1.11: Where possible, fuel and chemical storage and handling shall be undertaken at central fuel and chemical storage facilities, such as petrol stations.	During Construction	Camp officer	Daily and maintain records
	WT1.12: On-site storage of fuel and chemicals shall be kept to a minimum.	During Construction	Contractor	Daily, maintain records and report any incidents
	WT1.13: Any waste oils and lubricants are to be collected and transported to recyclers or designated disposal sites as soon as possible.	During Construction	Camp officer	Daily and maintain records
	WT1.14: Any dangerous goods stored on site shall be stored in accordance with GoC regulations.	During Construction	Contractor	Daily and maintain records

### 5.9 SOCIAL MANAGEMENT

#### 5.9.1 Background

238. The population of La Mojana is approximately 405,000. They are considered some of the most vulnerable in Colombia. The majority of the population is concentrated in the municipalities of Magangué, San Marcos and Ayapel. The National Agrarian Census figures indicate that 50% of total population live in rural areas. Men make up 51% and 55% of the population is between 0 and 24 years of age.
239. According to the last municipal measurement to the Multidimensional Poverty Index in 2005, La Mojana is one of the poorest regions of the country. 83.8% of its population at that time was poor, compared with 49.6% of the national average (DANE, 2005).
240. The population in the region increased 9% in the period from 1993 to 2011, with the urban population increasing by 23%. By comparison, the rural population decreased by 2%. Achí and Magangué in Bolívar and Ayapel in Córdoba experienced the highest migration. Sincelejo, Cartagena, Montería are the cities that receive most part of the migrant population, which work in domestic services, surveillance, construction and informal commerce.
241. Approximately 89% of the total population of the eleven municipalities are part of the subsidised regime. This percentage only corresponds to the population registered in the SISBEN system, which only includes the population in conditions of poverty and vulnerability; therefore they are people who lack the resources to satisfy their own needs. This percentage of affiliation to the subsidised regime is greater than that presented by the department of Bolívar (65%) and Sucre (79%). The contributory regime (health obligatory plan associated to formal employment) has 11% coverage for all municipalities, but the vast majority have very low levels, except for the municipalities of Magangué and San Marcos that have coverage of 21% and 10% respectively, due to their relatively important economic development in the region.
242. Children are particularly susceptible to illness as there is limited health care in La Mojana. Related to the project, the second cause of death of children under 5 years old is acute diarrheal diseases (EDA) in municipalities like Achí. In addition, water pollution with mercury from gold mining mainly in the upper basins of the Cauca and Nechi rivers is one of the most complex problems this population is currently suffering. This has been discussed above in this ESMF.
243. The project has been designed with the assistance of stakeholders and aims to provide benefits to the broader community. Notwithstanding, as with any project that involves construction and benefit sharing, some dissatisfaction can occur and conflicts may arise. It is important that potential areas of tension are recognised early and appropriate actions taken to avoid or minimise conflict, particularly given the history of conflict in La Mojana.
244. The project does not require involuntary resettlement and/or land acquisition although parts of the project may impact on land during construction activities which will be temporary in nature.

#### 5.9.2 Performance Criteria

245. The following performance criteria are set for the project:
- the community has been consulted and project elements have been designed with their informed consultation and participation throughout the project;
  - all stakeholders are appropriately represented;
  - avoid adverse impacts to local community during construction and operations and where not possible, minimise, restore or compensate for these impacts;
  - cultural heritage is not adversely impacted (specific management plan provided for below);
  - community health and safety is protected and overall well-being benefits derived from the project;
  - complaint and grievance mechanisms are put in place and proactively managed; and
  - long-term social benefits are achieved.

246. Local stakeholders and community members have a key role to play in the implementation and monitoring of the project particularly with the key outcome being that long term, the local community manage wetland ecosystems
247. Consultation with stakeholders will continue throughout the life of the project. This will help ensure that stakeholders continue to be aware of the project, its progress and any changes in the project. It will also assist in identifying any issues as they arise.
248. NAF will be responsible for advisory support and extensions services to local beneficiaries along with being responsible for distributing material inputs and providing technical training and backstopping in the implementation of programme activities.

### 5.9.3 Reporting

249. Records of all consultations are to be kept and reported on monthly basis.
250. The NAF must be notified in the event of any individual or community complaint or dissatisfaction and ensure the Grievance Redress Mechanism is complied with.

Table 11 Social Management Measures

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring reporting	&
SM1: Long-term conflict related to benefit sharing	SM 1.1: Carry out community consultation on the purpose and benefits of making changes to land use	Pre-construction	NAF	Maintain records	
	SM 1.2: Get community buy-in on any change of land use	Pre-construction	NAF	Maintain records	
	SM 1.3: Ensure compliance with the Grievance Redress Mechanism process	All phases	NAF	Maintain records	
SM2: Public nuisance caused by construction/operation activities (eg noise, dust etc)	SM 2.1: Carry out community consultation prior to undertaking activities	Pre-construction	NAF	Maintain records	
	SM 2.2: Implement appropriate management plans (air, noise, ESCP, and waste sections of the ESMF)	Construction and operation	Site supervisor and NAF	Daily and maintain records	
	SM 2.3: Ensure compliance with the Grievance Redress Mechanism process	All phases	NAF	Maintain records	
SM3: Water allocation conflict	SM 3.1: Carry out community consultation on water supply systems, purpose and management	Pre-construction	NAF	Maintain records	
	SM 3.2: Develop a water supply management plan with agreed allocation sharing provisions	Pre-construction	NAF	Maintain records	
	SM 3.3: Ensure compliance with the Grievance Redress Mechanism process	All phases	NAF	Maintain records	

## 5.10 ARCHAEOLOGICAL AND CULTURAL HERITAGE

### 5.10.1 Background

251. Archeologically, La Mojana is composed of an intricate system of channels, ridges and embankments of approximately 500,000 hectares, making it one of the major hydroelectric complexes in Latin America. The remains of more than 2,000 years of human presence (between the 10<sup>th</sup> and 12<sup>th</sup> Centuries), testify to the dynamic relation of the populations pre-Hispanic with the environment before the Spanish colonisation.
252. The National Institute of Anthropology and History (ICANH) is the archaeological authority in Colombia whose competences include the identification of protected archaeological areas; approve interventions in identified areas; and develop management plans to ensure the protection and adequate management of archaeological goods. The ICANH, have performed previous work related to the reconstruction of the functioning of the channel networks for decades and are present in the field in La Mojana.
253. The ICANH has identified heritage areas (total area of the municipality) in the following municipalities of La Mojana: San Marcos (5.96%), Majagual (5.96%), Caimito (4.55%), San Benito (3.41%) and Sucre (1.64%). The ICANH does not record any other archaeological area in the rest of La Mojana.

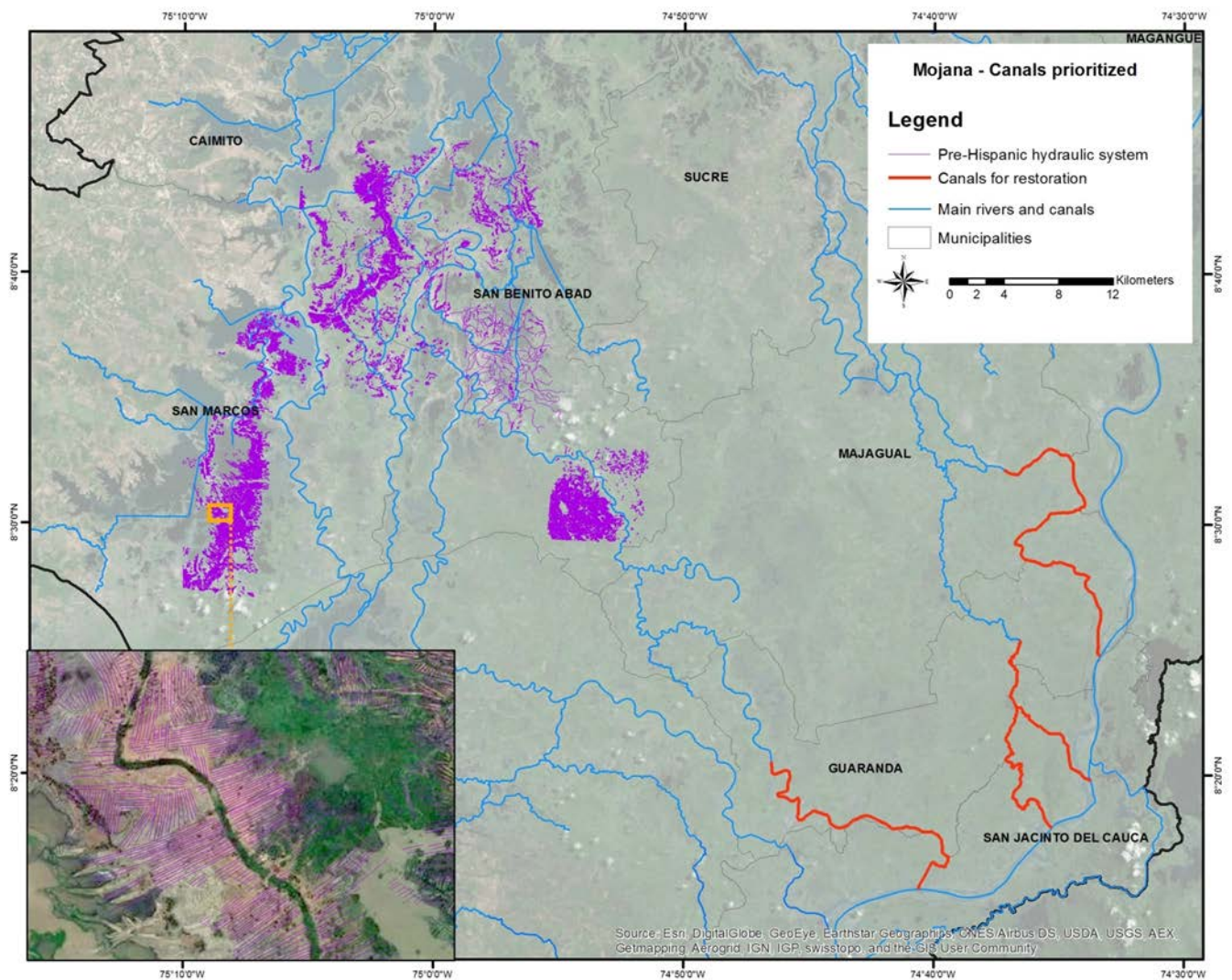


Figure 4 Location of the archaeological and cultural areas and the proposed stream restoration

254. UNDP and the National Adaption Fund (NAF -executing agency of the proposed project) are very aware of the importance of the channel network developed during the Pre-Hispanic Era. The UNDP and NAF's work has included documenting and mapping the network to guide activities in the La Mojana region (see Figure 1). In the context of the construction of the Action Plan for La Mojana, the ICANH and the

NAF entered into an agreement to incorporate findings from the ICANH and articulate considerations of the Archaeological Plan of the historical areas in the activities designed for La Mojana (Agreement 004 of 2015). This agreement has guided all proposed activities considered as part of this project.

255. One of the main objectives of the agreement was the development of the Archaeological Management Plan for La Mojana area. The Plan includes a comprehensive characterization of the area supported by previous studies by the ICANH; a complementary analysis of high-resolution aerial photography performed by the NAF, and appropriate measures to ensure the integrity of the archaeological context located within La Mojana. Interventions allowed that are unlikely to have impacts on the archaeological goods included in the Management Plan are:
- Traditional non-mechanized agriculture;
  - Traditional fishery in rivers, streams and cienagas;
  - Structural Flood-control measures authorized by the ICANH;
  - Ecological restoration of streams, cienagas and soils; and
  - Recreation and low-impact cultural and ecological tourism.
256. Based on the investigations performed by the ICANH, stream restoration will not have an impact on the archaeological areas. Importantly, no interventions in the proposed project are located in the area of influence of the Zenues channels identified by the ICANH (Figure 1). Based on the above, the UNDP and the NAF reasonably consider that there is unlikely to be any impacts on important Cultural heritage and/or biodiversity issues that may be considered important under any World Heritage Area application.
257. There is also evidence to suggest that recognition of an old work of the Art of Bâtir which dates from the 4<sup>th</sup> Century and was abandoned sometime around the 10<sup>th</sup> Century, this being "Los campos de cultivo pre-Hispanicos del bajo San Jorge."
258. Given the nature of the project, there is the potential to impact on archaeological heritage.

### 5.10.2 Performance Criteria

259. The following performance criteria are set for archaeological and cultural heritage issues related to the project:
- There will be no impact on any important Archaeological, Indigenous and/or Cultural Heritage sites;
  - Manage any specific sites of important Archaeological, Indigenous and/or Cultural significance (significant sites);
  - Where there is a mix of modern development and traditional areas within communities, undertake community engagement to confirm options of enabling future development as nominated by the participants and protecting culturally significant traditional areas. It is critical this include Indigenous Peoples;
  - Work with communities to differentiate between traditional areas of archaeological and cultural significance (uses and physical form) within each of the community areas during the construction phase of the project; and
  - Monitoring.
260. Local stakeholders and community members have a key role to play in the implementation and monitoring of the project.
261. Consultation with stakeholders will continue. This will help ensure that stakeholders continue to be aware of the project, its progress and any changes in the project. It will also assist in identifying any issues as they arise.
262. NAF will be responsible for advisory support and extensions services to local beneficiaries along with being responsible for distributing material inputs and providing technical training and backstopping in the implementation of programme activities.

### 5.10.3 Reporting

263. Records of all consultations are to be kept and reported on monthly basis.

Table 12 Archaeological and Cultural Heritage

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
<p>CH1: Damage or disturbance to significant important Archaeological, Indigenous and/or Cultural Heritage during the earth disturbances and other activities</p>	<p>CH1.1: Should any important Archaeological, Indigenous and/or Cultural Heritage sites, immediately cease work within the area that the site has been observed and consult with the relevant Museum/traditional owner groups, UNDP, NAF and archaeologist available for implementation during construction.</p>	<p>Pre and during construction</p>	<p>Contractor</p>	<p>Daily, maintain records and immediately notify UNDP and NAF of any find</p>

### 5.11 EMERGENCY MANAGEMENT MEASURES

264. In the event of actions occurring, which may result in serious health, safety and environmental (catastrophic) damage, emergency response or contingency actions will be implemented as soon as possible to limit the extent of environmental damage.
265. The delivery organisation will need to incorporate emergency responses into the project complying with the requirements under the Occupational, Health and Safety Policy of the delivery organisation and the relevant GoC laws.

#### 5.11.1 Performance Criteria

266. The following performance criteria are set for the construction of the projects:
- a. no incident of fire outbreak;
  - b. no failure of water retaining structures;
  - c. no major chemical or fuel spills;
  - d. no preventable industrial or work related accidents;
  - e. provide an immediate and effective response to incidents that represent a risk to public health, safety or the environment; and
  - f. minimise environmental harm due to unforeseen incidents.

#### 5.11.2 Monitoring

267. An emergency response monitoring program has been developed for the projects (Table 13). The program is subject to review and update at least every two months from the date of issue. Importantly, visual inspections will be conducted by camp officer daily with reporting to NAF and UNDP staff on a weekly basis (minimum) noting any non-conformances to this EMSF.

#### 5.11.3 Reporting

268. The NAF and UNDP staff must be notified immediately in the event of any emergency, including fire or health related matter including those that have resulted in serious environmental harm.

Table 13 Emergency Management Measures

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
E1. Fire and Emergency management and prevention strategies implemented	E1.1: Flammable and combustible liquids bunding/storage areas to be designed in accordance with appropriate international standards	Pre and during construction	Contractor	Daily and maintain records
	E1.2: Fire extinguishers are to be available on site	During construction	Contractor	Daily and maintain records
	E1.3: No open fires are permitted within the project area	During construction	Camp officer	Daily and maintain records
	E1.4: Communication equipment and emergency protocols to be established prior to commencement of construction activities.			
	E1.5: Train all staff in emergency preparedness and response (cover health and safety at the work site). Coordinate with NDMO.	During construction	Camp officer	Daily and maintain records
	E1.6: Check and replenish First Aid Kits	During construction	Camp officer	Daily and maintain records
	E1.7: Use of Personal Protection Equipment	During construction	All Personnel	Daily and maintain records

## 6 BUDGET FOR ESMF IMPLEMENTATION

269. A budget has been prepared for the implementation of the ESMF as follows:

<b>Item</b>	<b>Cost</b>
ESMF Updating and Auditing	\$10,000
General ESMF Expenses	\$20,000
Ecological Monitoring (40 sites - two assessments/year over five years)	\$120,000
Water Quality Monitoring (monitoring to be undertaken over five years)	\$220,000
Water Quality Sample Laboratory Analysis (monitoring to be undertaken over five years)	\$60,000
Sediment Sample Field Testing (monitoring to be undertaken over five years)	\$90,000
Sediment Sample Laboratory Analysis (monitoring to be undertaken over five years)	\$90,000
Erosion, Drainage and Sediment Control (includes silt curtains etc)	\$75,000
Archaeological Management	\$25,000
Stakeholder Engagement Workshop	\$140,000
Grievance Redress Mechanism	\$50,000
<b>Total</b>	<b>\$900,000</b>



## **ANNEXURE ONE: COMMUNITY CONSULTATION AND STAKEHOLDER ENGAGEMENT INFORMATION**

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### Stakeholder engagement plan

This proposal was developed with significant multi-stakeholder discussions and participation. More than 600 people participated in several consultations conducted between Noviembre 2016 and February 2017. The National Adaptation Fund, the National Planning Department and the Ministry of Environment and Sustainable Development through the MADS-Kyoto Project led the discussions. Local authorities and community based organizations have also been fully engaged in the process. At the national level several agencies were fully involved such as the Ministry of Housing and Water, the Ministry of Agriculture and Rural Development, the Presidential Agency for Cooperation, the IDEAM and Humboldt Biological Research Institute.

A wide range of stakeholders has been involved in the project, tailored to the specific needs of the three project outputs: 1) Strengthened understanding and systemizing knowledge of the impacts of climate change on water management, 2) Improved water resources management by vulnerable households and communities 3) Output 3. Improved climate-resilient Early Warning Systems, 4) Enhanced climate-resilient agroecosystems-related rural livelihoods.

The following table highlights the Stakeholder Engagement Strategy detailing out the stakeholders for the outputs and activities for the lifetime of this project

Output	Activities	Stakeholder
Output 1. Strengthened understanding and systemizing knowledge of the impacts of climate change on water management	1.1. Gather information required for a long-term climate-resilient water management solution for La Mojana	Ministry of Housing and Water, National Geologic Service, Local communities, IDEAM, Ministry of Agriculture and Rural Development
	1.2. Management of adaptation knowledge on water resources	Presidential Agency of Cooperation, National Adaptation Fund, Ministry of Environment and Sustainable Development, Ministry of Agriculture and rural Development, Local public universities, regional environmental authorities
Output 2. Improved water resources management by vulnerable households and communities	2.1. Establish Climate Resilient Water Solutions	National Adaptation Fund, Ministry of Environment and Sustainable Development, Ministry of Housing and Water, local authorities, communities
	2.2. Increase resilience of natural ecosystems and ecosystems-based livelihoods	Regional Environmental Authorities, Alexander von Humboldt research Institute, Ministry of Environment and Sustainable Development, local communities
Output 3. Improved climate-	3.1. Strengthen monitoring and	IDEAM, local public Universities, Regional Environmental Authorities, Local

resilient Early Warning Systems	early warning systems	Governments, community based organizations
Output 4. Enhanced climate-resilient agroecosystems-related rural livelihoods	4.1. Conduct Agroecosystems livelihood diversification research	Ministry of Agriculture and Rural Development, Ministry of Environment and Sustainable Development, National Adaptation Fund, Regional Environmental Authorities, Local Governments, community based organizations
	4.2. Improve water resource management in household-level food production	Ministry of Agriculture and Rural Development, Ministry of Environment and Sustainable Development, National Adaptation Fund, Regional Environmental Authorities, Local Governments, community based organizations
	4.3. Enhance climate resilient agroextension programmes	Ministry of Agriculture and Rural Development, Ministry of Environment and Sustainable Development, local public universities, National Adaptation Fund, Regional Environmental Authorities, Local Governments, community based organizations

A summary of some stakeholder consultation made during the project design is presented below. Minutes of each meeting are included in the annexes.

**Results of the consultation with women local organizations**

Date and place	Entities/ organizations consulted	Main topics addressed and recommendations/conclusions
11/03/2016. Achí. Bolívar	Buena Vista Women's Association	This community showed interest in participating in: <ul style="list-style-type: none"> <li>Water component, as they have organized a water committee which is managing the micro-aqueduct.</li> <li>Production-related areas, mainly rice and cassava.</li> </ul>
11/01/2016. San Jacinto del Cauca-Bolívar	Working Women of Caimital Association.	They are interested in participating in the project because they are receiving training in production-related matters; however, owing to the impacts of the climate, as seen in recent floods, they have not been able to make progress with these initiatives. They do not possess knowledge about adaptation measures, and grow their crops in the traditional way. The women have expressed a desire to perform restoration work, since that way they will be able to look after the water bodies.
11/02/2016 Nechi-Antioquia	Victims of Las Flores Association	The women of this association have expressed interest in participating in the project, because this would help them strengthen their organizational

		<p>processes. The women are interested in working with production-related projects associated with rice and maize.</p> <p>Regarding water access, although they have a micro-aqueduct, the water is not potable and is susceptible to spoilage in time of drought or flooding.</p> <p>They have said they would be interested in receiving project training that would enable them to organize community management of the micro-aqueduct.</p>
	Víctims of Correntoso Association	<p>This association is interested in receiving support from the project that helps them in the area of organizational strengthening. They have shown interest in the project helping them obtain a micro-aqueduct, since they do not have access to water and periods of prolonged drought mean they need to work harder to get water. They also showed interest in working with rice crops.</p>
11/03/2016. San Benito Abad- Sucre	Cuiva Women's Association	<p>They are happy to participate in the project. They find climate-adapted water solutions and their participation in restoration work and production-related processes to be relevant to their community.</p>
11/02/2016 Majagual-Sucre	Little Countrywomen's Association of Miraflores	<p>The women of this association have shown interest in mounting a rice initiative and having the tools that would allow them to conserve their agricultural products for when the dry season comes so that they do not need to buy other, more expensive food.</p> <p>They also say that there are streams in the community that have been drying up and it would be good to get them back, as this would allow fishing to return to the area.</p>
11/03/2016 Guaranda-Sucre	Countrywomen's association, small growers of Tierra Santa	<p>The women of these communities have shown interest in topics related to water access, owing to the fact that in times of drought, the dam dries up.</p> <p>Although they have a micro-aqueduct, they only use this water for domestic tasks since it smells and tastes bad.</p> <p>The community does not have the capacity to store rice and this means that in times of high production they have to sell the rice for a very low price and in times of drought, they have to buy rice for three times the price that they sold it for.</p>
11/03/2016 Caimito-Sucre	United Caimito Association	<p>The women of this association showed their interest in participating in activities related to crop diversification and family homegardens, as in times of drought, access to food becomes difficult for them.</p>

**Results of the consultation with the communities of the Zenú people that have settlements in the project area**

Community	Impacts identified	Relationship of the Project with the cultural characteristics of the Zenú people	Demand for capacity strengthening	Impact of the Project on their natural resources
<b>Pital</b>	They have been affected by climate variability events (excessive rain and droughts); the greatest impact has been on crops and animals.	The community considers itself to be the observer and protector of the region's natural resources.	Training and support for the establishment of staple crops. Handling and processing of fibers and handicrafts.	They consider that their natural resources will be positively impacted by the project.
<b>Montegrande</b>	They consider that the project mitigates the impacts that climate variability is having on the region.	The community considers that the project is compatible with their cultural conditions. They highlight the importance of working with native species, which is a demand of the community.	They request training in the environment and in water management. Education for the peasant population. They highlight the fundamental role of women in the process.	Recuperation of streams, water sources, flora, fauna and soil.
<b>Jeguita – Takasuan</b>	They believe it is essential to improve the community's water supply system, as the quality of the water is poor and it is affected by both excessive rain and drought.	The community confirms that the proposal is compatible with its cultural characteristics, since it does not seek to alter or violate the dynamics of its ethnic roots. They consider that the design of the proposal is consistent with their needs.	Empowerment of women through training projects on agro-ecological and artisanal topics. Support to small farmers and cattle farmers. Community training on organizational issues for adaptation. NOTE: Although the construction of roads was requested, it was	The councils present clarify that they depend mainly on the swamp, rivers and streams. They consider it important that the project enable the recuperation of some of these that have been lost by the extreme climatic conditions; they also indicate that they depend on crops such as maize, cucumber, cassava, rice and watermelon.

			explained that this type of infrastructure cannot be built by this project.	
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**Summary of the issues discussed, and the recommendations and conclusions of the indigenous councils in the project area**

Indigenous Councils Consulted	Main issues discussed and recommendations/conclusions made
<p>Takasuan Council (from Sispataca, El Limón, Villanueva and La Ceiba veredas)</p> <p>Jeguita Council (from Jegua vereda).</p> <p>Location of the consultation meeting: San Benito Abad-</p> <p>Date: 11/19/2016</p>	<p>The proposal to develop the project "Integrated management of water resources as a climate change adaptation strategy for the most vulnerable communities in La Mojana" was socialized. The scope and the stakeholders involved were presented and there were discussions about the community's interest in participating in it and how the proposal would contribute to improving the living conditions of the population.</p> <p>The Councils expressed total interest and commitment. They consider that the project will contribute to the recovery of their wetlands that have been lost due to environmental degradation and through this process they will <i>"be able to rescue some ancestral customs, such as cultivating maize again (which is a fundamental part of their diet), rescuing the Junco and the Enea (Aquatic reeds that serve to make mats and handicrafts) and traditional fishing"</i>. On this last point, they stated that, if the project were approved, they would commit themselves to being the guardians of the wetlands and ensure the resumption of ancestral fishing practices, such as fishing with <i>chuzos</i> (spears) and <i>atarrayas</i> (a round net), in order to avoid over-exploitation and in this way keep the fish in the swamps and streams.</p> <p>Although their communities have local water supply systems, they affirm that the quality of the water is terrible and sometimes it smells bad (especially when there is flooding), so it cannot be consumed. They consider that it would be very important for the communities to have drinking water that they and their children would be able to consume with peace of mind.</p> <p>Regarding the role of women, they stated that, although their main work is in the house, they are also expected to work on homegardens (for their restoration), and they can also participate in rice cultivation and do work associated with productive activities. They said that it would be the first time in their communities they would have a project of this magnitude, which would help them, especially in times of drought, which is when they have most problems with livestock. The indigenous people see it as very positive that small producers are supported with a plan that considers the climate problems and the most resistant local seeds, because "with at least one hectare of rice or corn which you sow, you have seed for the next few crops. That's why we like native seeds, because we can save them to grow crops for many years."</p>

<p>Lomas de Palito Council (Lomas de Palito)</p> <p>Location of the consultation meeting: San Benito Abad-</p> <p>Date: 11/19/2016</p>	<p>Presentation of the proposal "Integrated management of water resources as a climate change adaptation strategy for the most vulnerable communities in La Mojana". The scope of the proposal and the stakeholders involved were socialized, and there were discussions about the community's interest in participating in it, and how the proposal would contribute to improving the living conditions of the population.</p> <p>The representatives of the Council said that this project is useful for the work they are doing to rescue the swamps and help to stop the pressures on them. They say that if the project is approved, they would be restoring areas of wetlands, which in the past provided them with many services, such as the palms they used for the construction of their homes and the wild animals for their diet. The project, they say, would also be a great opportunity to involve young people in restoring ancestral customs related to crops, <i>"in our Zenú culture, the land is everything because it gives us everything, but that is being forgotten, because with the climatic phenomena of floods and drought, we have abandoned many customs and we have forgotten how to work and care for it so that it gives us sustenance"</i>.</p> <p>Regarding the role of women, they said that although women from their culture do not traditionally participate in decision-making, they do work hard, <i>"although we are now changing that practice: it is possible that at the next meeting, we will have a woman captain in the Council."</i> The women in this community are in charge of planting trees and caring for the forests.</p> <p>At the end of the meeting, they expressed their total commitment and motivation to work on the project, as it would be an opportunity for the community.</p>
<p>Councils: Pital Montegrande Santo Domingo</p> <p>Location of the consultation meeting: San Marcos.</p> <p>Date: 11/23/2016</p>	<p>Presentation of the proposal "Integrated management of water resources as a climate change adaptation strategy for the most vulnerable communities in La Mojana". The scope of the proposal and the stakeholders involved were socialized at the meeting, and there were discussions about the community's interest in participating in it and how the proposal would contribute to improving the living conditions of the population.</p> <p>The Montegrande Council expressed its view that the project would come at a very opportune moment, in particular because they had begun a reforestation process as a measure to recover deteriorated zones. In addition, they said that on the issue of wetland restoration and protection of natural resources, the project would contribute to the protection of water sources, which are at risk due to exploration that oil companies want to carry out: <i>"we are carrying out advocacy so that they do not do that drilling in the community"</i>.</p> <p>The Council of Santo Domingo expressed interest in the cultivation and management of <i>caña flecha</i> fibers, as they are not only used to make handicrafts, but also have the ecological function of protecting the shores of swamp forests, marshes and streams from erosion.</p> <p>The indigenous councils of Montegrande and Santo Domingo own lands that each exceed 200 hectares and are already implementing environmental projects through the Watershed Management Plans. For their part, women expressed interest in participating in productive activities, such as organizing homegardens and cultivating staple crops.</p>



# **ANNEX XIII (i) – Stakeholders Engagement Plan**

GREEN CLIMATE FUND FUNDING PROPOSAL



## **ANNEX 1: STAKEHOLDER CONSULTATIONS**

## LISTA DE ASISTENTES A REUNIONES



LUGAR: Bogotá, UNDP.

FECHA: 24 / 11 / 2016 HORA: 9:30am

TEMA: Presentación programa Mojano - GCF

PRESIDE: Anibal Pérez

Nº	NOMBRE	ENTIDAD / MUNICIPIO	CARGO	DEPENDENCIA	TELÉFONO / CELULAR	CORREO ELECTRÓNICO	FIRMA
1	Dario Mejia	CMRPZ	Cabildo Mayor Regional pueblo Zedler - Delegado		3145931666	mejiazenw@gmail.com	
2	Raula Garcia	ONU-REDD	Coordinador		3134711747	andrea.garcia@undp.org	
3	Claudia Caspers	P.MUD.	Asesora desarrollo sostenible		312303164	claudia.caspers@undp.org	
4	Jessica Zapata J.	PNUD.	Prof. monitoreo	Des. Sostenible.	3204101157	jessica.zapata@undp.org	
5	Milena Bernal R.	Aso. Ambiente y sociedad.	Investigadora	Cambio climático	3124004838	milena@ambienteysociedad.org.co	
6	Anibal Pérez	PNUD-Consultor	Consultor		3015679613	anibaljosaperez@upmed.com	
7							
8							
9							
10							
11							
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**CONTROL DE ASISTENCIA**

FECHA  
20/6/11/28  
AAAA MM DD

EVENTO: Dire Proxecto Masora - fondo verde del clima LUGAR: \_\_\_\_\_

FUNCIONARIO RESPONSABLE: Diego Rubio

NOMBRE Y APELLIDOS	CARGO	DEPENDENCIA / ENTIDAD	TELEFONO	CORREO ELECTRONICO	FIRMA
<u>Diego F. Polanco</u>	<u>Subdirector Agua</u>	<u>DNP / SDAS</u>	<u>8020</u>	<u>dpolanco</u>	<u>D.F. Polanco</u>
<u>Carlos A. Gonzalez</u>	<u>Embajador</u>	<u>DNP / SDAS</u>	<u>8022</u>	<u>cgonzalez@</u>	<u>CG</u>
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La información contenida en este documento tiene como propósito verificar su asistencia y asuntos relacionados con el objeto de la reunión, adicionalmente de acuerdo a lo establecido en el artículo 2 de la ley 1712 de 2014, esta información se encuentra en el marco del



LISTA DE ASISTENCIA

CODIGO: EPI-F001  
VERSION: 02  
FECHA: 10/09/2015  
PAGINA: 1 de 1

Tema de la Reunión: **Proyecto GCF (PNUD-ONP-FUN-FAA-IDEAM)**

Responsable y/o Grupo Responsable:

**IDEAM**

Lugar: **IDEAM** Fecha: **25/10/16** Hora: **8:00 a.m.**

Nº.	NOMBRES Y APELLIDOS	CARGO	ENTIDAD	EXPERIENCIA	TELÉFONO-EXTENSIÓN ext. int.	CORREO ELECTRÓNICO	FIRMA
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## LISTA DE ASISTENTES A REUNIONES



LUGAR: Bogotá / UNDP

FECHA: 21 / 11 / 2016

HORA: 2:30 pm

TEMA: Presentación proyecto Ingania / GCF

PRESIDE: Jimena Ruyana.

Nº	NOMBRE	ENTIDAD / MUNICIPIO	CARGO	DEPENDENCIA	TELÉFONO / CELULAR	CORREO ELECTRÓNICO	FIRMA
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**CONSULTATION OF THE PROJECT FORMULATION PROCESS FOR GCF**  
**MINUTES OF MEETING WITH THE REPRESENTATIVE OF UNIVERSITY OF CÓRDOBA**

**PLACE:** UNDP's office

**DATE:** February 10th, 2017.

**Meeting attendees:** See attached list

**Agenda de la reunión**

1. Presentation of the project proposal to be submitted to the GCF
2. Perspectives on the project and recommendations for its feasibility
3. Commitments

**Summary of the meeting**

The representative of the DNP explains that the project is currently being formulated and consultations are being held with municipalities and communities to collect their proposals, identify ongoing initiatives and also be able to better identify the areas where activities will take place of the project. It is explained that the project will be submitted to the Green Climate Fund in July and will be informed of the decision taken by the fund.

The presentation of the project is initiated by the UNDP Consultant, explaining the components of the project:

- i) Rainwater harvesting systems for families and nucleated communities,
- ii) Proposal for the restoration of wetlands (channels, zapales and marshes),
- iii) Management of water and food gardens for food security with adapted species,
- iv) Early warning systems,
- v) Knowledge management.

It is explained that the main impacts of the project will be to provide quality water for human consumption and that new wells will not be opened to avoid pressure on aquifers. Likewise, it is hoped that by improving the quality of wetlands, the quality of life of the population that depends most on them can be improved.

Regarding the University, its importance is raised by the experience that it has in rural extension systems in the department of Córdoba and the role that can play as articulating axis and leading entity of the early warning system.

Delegates emphasize the role of the university in the last 15 years in participatory research with small producers, working with local organizations, and technological alternatives for rural areas (accompanied by FAO).

With support from IICA-FAO, the university has developed the project "Unleashing local energies" which aims to develop local leadership schools and seek technological solutions to local problems,

with a strong emphasis on communication. Regarding EWS, they have advanced in environmental information systems, storm monitoring and forecasting.

The university highlights as one of its strengths have a team of experts in geomatics, agronomy, hydrology and meteorology, also have a regional station and institutional programs on a local television channel and regional TV. Currently, they participate in the regional agro-climatic table of the department, where agricultural alternatives to the climate for cassava, yams, bananas have been discussed and worked on topics such as in vitro cultivation and propagation, and improvement of some varieties. They consider important that the project include sustainability strategies and be articulated to support the implementation of peace agreements.

The university believes that they can lead a rural extension program and link its work with the University of Sucre. With this partnership, the project achievements in the region can be disseminated through the system of state universities in the Caribbean.

They consider that the option of buying a radar for the EWS is not the best for the region and that there are more adequate alternatives for the institutional conditions of the region. In this regard the rector and representatives of the University of Cordoba consider that they are capable to lead the regional forecasting center with the support of the project.

It is agreed that the University will send a letter of co-financing and will show its willingness to participate in the project supporting the topics of EWS and rural extension.





LISTADO DE PARTICIPANTES

FECHA: 10/02/2017      Evento: Presentación Proyección GCF / Universidad de  
 Lugar: Oficina PNUD Montevideo      Preside: Jimena Puyana

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**CONSULTATION OF THE PROJECT FORMULATION PROCESS FOR GCF**  
**MINUTES OF MEETING WITH REPRESENTATIVES OF LOCAL COMMUNITIES – MAGANGUÉ**

**PLACE:** San Marcos, Hotel Camel

**DATE:** February 6th, 2017.

**Meeting attendees:**

**Representatives of local organizations**

1. Felix Meza – Corporación tierra de vida - CTV
2. Anibal Benavides – Corporación tierra de vida
3. Gabriel Garrido – Corporación tierra de vida

**UNDP**

1. Anibal Perez – Consultant
2. Maria T Becerra – Consultant
3. Jessica Zapata – UNV
4. Vladimir Lugo - Specialist in agro-productive systems

**Meeting Schedule**

1. Presentation of the project proposal to be submitted to the GCF
2. Presentation of the successful experience of community water management promoted by the Corporation
3. Perspectives on the project and recommendations for its feasibility
4. Commitments

**Summary of the meeting**

The meeting begins with the presentation of the project by the UNDP team, which explains that the project is currently being formulated and consultations are being held with municipalities and communities to collect their proposals, identify ongoing initiatives and also be able to better identify the areas where activities will take place of the project. It is explained that the project will be submitted to the Green Climate Fund in July and will be informed of the decision taken by the fund.

The presentation of the project is initiated by the UNDP Consultant, explaining the components of the project:

- i) Rainwater harvesting systems for families and nucleated communities,
- ii) Proposal for the restoration of wetlands (channels, zapales and marshes),
- iii) Management of water and food gardens for food security with adapted species,
- iv) Early warning systems,
- v) Knowledge management.

On the other hand, the CTV shares its experience of working in the territory, which consists of providing water harvesting solutions to communities without micro aqueducts in the municipality of Magangué.

The model they have used to bring this technology to communities is:

- Preliminary training process with communities to inform about technology and organize the community around activities
- Acquisition of materials for the construction of ferrocement tanks.
- Training communities through the construction of a tank with the participation of several members of the community. Once the training process is completed, the community has the first tank in operation. The tanks are designed to provide water to four families composed on average by 5 people, tanks have a capacity to store 20,000 liters. Thus, an average of 60 liters per family is distributed every two days.
- The financial resources of the project are invested in materials, professionals for training and in the logistics of activities. The counterpart of the population consists of labor and sand requires during the construction.
- For the effective management of the tanks, the community was supported in the creation of an organization that allows them to manage matters related to water management.

Success factors and complementary initiatives:

- The organization of communities is indispensable for technological solutions to work. The association generates appropriation and allows the sustainability of the actions. This is a fundamental element to be able to replicate this initiative.
- The water collected in the tanks is exclusively for human consumption or important activities (e.g. bathing babies). Twenty years ago the community uses tanks, and the micro aqueduct that was recently installed by the municipality is used as a complementary measure. From the micro aqueduct they obtain the water for domestic work (washing, cleaning, bathing), so that they no longer have to travel long distances to carry water for this type of activities.
- It is important that associations for the management of micro aqueducts collect monthly some money for the provision of the service, in order to be able to perform the necessary maintenance and repairs. In the community of Emaús, for example, they charge 4000 pesos.
- They also use the jagueyes to collect water for garden irrigation and fish farming. They distribute the produced foods at a low price among the members of the association.
- The jagueyes and the micro aqueduct work with solar energy, have people trained in the use of this technology and work well.

Commitments:

- The CTV provides technical information on the technologies implemented and also lessons learned from the process to contribute to the formulation of component 2 of the project.



LISTADO DE PARTICIPANTES

Presentación Proyecto GCT

Evento: Presentación experiencia Manjio agua comunitario

FECHA: 06/02/2017

Lugar: Magangue

Presidente: Amibal Pérez

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## CONSULTATION OF THE PROJECT FORMULATION PROCESS FOR GCF

### MINUTES OF MEETING WITH THE REGIONAL ENVIRONMENTAL AUTHORITY - CORPORACIÓN PARA EL DESARROLLO SOSTENIBLE PARA LA MOJANA Y EL SAN JORGE (CORPOMOJANA)-

**PLACE:** Corpomojana's office

**DATE:** February 7<sup>th</sup>, 2017

**Meeting attendees:** See attached list

#### **Agenda de la reunión**

1. Presentation of the project proposal to be submitted to the GCF
2. Perspectives on the project and recommendations for its feasibility
3. Commitments

#### **Summary of the meeting**

The representative of the DNP explains that the project is currently being formulated and consultations are being held with municipalities and communities to collect their proposals, identify ongoing initiatives and also be able to better identify the areas where activities will take place of the project. It is explained that the project will be submitted to the Green Climate Fund in July and will be informed of the decision taken by the fund.

The presentation of the project is initiated by the UNDP Consultant, explaining the components of the project:

- i) Rainwater harvesting systems for families and nucleated communities,
- ii) Proposal for the restoration of wetlands (channels, zapales and marshes),
- iii) Management of water and food gardens for food security with adapted species,
- iv) Early warning systems,
- v) Knowledge management.

It is explained that the main impacts of the project will be to provide quality water for human consumption and that new wells will not be opened to avoid pressure on aquifers. Likewise, it is hoped that by improving the quality of wetlands, the quality of life of the population that depends most on them can be improved.

Emphasis is given to the explanation of the water catchment systems and water quality assurance systems proposed in the project, as well as the importance of wetland restoration. The DNP emphasizes that the national government has prioritized this region to present the project to the Green Climate Fund, and it is a joint effort of different institutions that requires the commitment of municipalities.

The Director of the Corporation expresses her agreement with the project and especially emphasizes the theme of restoration of wetlands. This is a priority theme for CORPOMOJANA, as


well as the importance of the program of efficient stoves to reduce the pressure on the remaining forests.




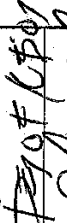
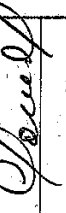
The technical team of the corporation reports that they are carrying out the inventory of wells in the municipalities of Guaranda and Majagual, identifying the number of wells as their risk of contamination. On the other hand, they comment on the progress of the study of surface water quality and monitoring of mercury contents in living tissues, working in conjunction with the University of Córdoba.

The director of CORPOMOJANA considers that it is important to achieve greater involvement of communities and guilds, recommends that the component of strengthening local capacities for both communities and guilds be strongly reflected in the proposal. In particular, a request is made for the involvement of the Corporation, for its part the entity undertakes to provide its counterpart, especially in the restoration component.

Regarding the early warning system (EWS), the corporation considers that it has an important role to strengthen the communication of information generated by the EWS, supporting the process of dissemination of alerts and climate information.

UNDP explains the strategy of capacity building, such as field schools for the implementation of adaptive gardens, women's participation in restoration issues, institutions will be strengthened specifically for the EWS and land use planning. Is also committed to clearly describe the role of the Corporation in the project, both in restoration and in the EWS, in the proposal that will be presented in June to the Green Climate Fund.



<b>Actividad</b>	Reunión Corporativa				
<b>Lugar</b>	Florencia, Santa Fe				
<b>Fecha</b>	12 de Septiembre 2012				
<b>DATOS DE LOS ASISTENTES</b>					
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Observaciones:					

**CONSULTATION OF THE PROJECT FORMULATION PROCESS FOR GCF**  
**MINUTES OF MEETING WITH REPRESENTATIVES OF LOCAL COMMUNITIES**

**PLACE:** San Marcos, Hotel Camel

**DATE:** February 6th, 2017.

**Meeting attendees:**

**Representatives of local organizations**

1. Islan Ramiro Gil Guerra (Corpoafrosam)
2. Milton Jose Borrero (OSAMBA)
3. Anuar Jose Perez (Afro Montería)
4. Pedro Jorge Machado ( Afros Majagual)

**Representative of the observers' network**

1. Roberto Sandoval

**Representatives of the national government**

1. José Gabriel Sorzano, Coordinator of La Mojana project of the Adaptation Fund
2. Diego Rubio, Representative of the DNP Sustainable Development office

**Adaptation project team in La Mojana region – MADS/UNDP**

1. Project coordinator, Diana Diaz
2. Restoration specialist, Andrés Santamaría
3. Specialist in hydrology, Zaira Cuervo
4. Specialist in agro-productive systems, Vladimir Lugo
5. Specialist in agro-productive systems, Wilber Ramirez

**UNDP**

6. Manager of sustainable development office, PNUD Jimena Puyana
7. Climate finance consultant, PNUD Montserrat Xilotl
8. Advisor on the area of sustainable development, Claudia Capera

**Meeting Schedule**

1. Presentation of the project proposal to be submitted to the GCF
2. Perspectives on the project and recommendations for its feasibility
3. Commitments

## Summary of the meeting

Thanks to the representatives of communities for accepting the invitation to present the project. They are invited to express their opinions and perspectives freely during any time of the presentation. There are four representatives from the following organizations: Corpoafrosan, Osamba, Afromonteria, Afromajagual and a representative of the network of overseers. The representatives give a brief description of their organizations:

- Corpoafrosan has a group of 270 families, where 80 young people, 237 girls, and 200 women work in the production of handicrafts. It supports 20 young people to carry out university studies and they already have 10 professionals and a music school.
- Organization OSAMBA, located in San Benito (280 families) support educational processes and productive projects, and seed recovery.
- Afro Majagual, the organization was formed a year ago, it has 180 families, 85 women, 60 children, families of 5 to 7 people, very poor communities. Geographically they are surrounded by swamps.
- Afromonteria. Municipality of Sucre. 33 families are affiliated. The organization was formed a year ago, by families of fishermen. There are 22 women. Their priorities are to improve housing conditions.

The representative of the DNP explains that the project is currently being formulated and consultations are being held with municipalities and communities to collect their proposals, identify ongoing initiatives and also be able to better identify the areas where activities will take place of the project. It is explained that the project will be submitted to the Green Climate Fund in July and will be informed of the decision taken by the fund.

The presentation of the project is initiated by the UNDP Consultant, explaining the components of the project:

- i) Rainwater harvesting systems for families and nucleated communities,
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- iii) Management of water and food gardens for food security with adapted species,
- iv) Early warning systems,
- v) Knowledge management.

It is explained that the main impacts of the project will be to provide quality water for human consumption and that new wells will not be opened to avoid pressure on aquifers. Likewise, it is hoped that by improving the quality of wetlands, the quality of life of the population that depends most on them can be improved.

Emphasis is given to the explanation of the water catchment systems and water quality assurance systems proposed in the project, as well as the importance of wetland restoration. The DNP emphasizes that the national government has prioritized this region to present the project to the Green Climate Fund, and it is a joint effort of different institutions that requires the commitment of municipalities.

During the presentation, the delegates of the community organizations expressed their opinions and concerns, as well as their proposals. Its main comments are:

- For communities, the wealth in La Mojana is the flood and know how to handle it. Biodiversity is the source of life.
- The project should place greater emphasis on the biodiversity component, with species important to the communities: “icotea, chigüiro, babillas” species used for protein consumption by the community.
- The pressure generated by the livestock sector is competing with the natural vocation of the region, which is agriculture.
- It is suggested to involve the teachers of the schools as promoters of training in the communities.
- Fishing is an important factor for afro communities.
- There are difficulties in the management of the pumping systems and accessories of the pumps used in the micro-aqueducts for water supply.
- It is highlighted that an important aspect is the financial sustainability to ensure the functioning of the aqueduct systems
- Women are characterized by being more disciplined and responsible for the care and maintenance of the food gardens.

#### **Aclaraciones**

- How will the training processes be carried out with the communities? How will the educational plans be developed?

It is proposed to complement the training of technicians in the region, specifically with issues of adaptation to climate change. It will work under the methodology of field schools, on the farms and will have in each area a team of community promoters, to be able to multiply the benefit to more people.

For the educational plans, the University of Córdoba will be supported and its experience in rural extension will be used with the communities of the region. The training will be done in a practical way, in the farms of the producers in the areas that are prioritized. Local organizations will also be strengthened.

Community representatives suggest involving teachers because they have a presence in all communities, it also facilitates being able to convene the entire community and the involvement of children during the processes. It is very important for all organizations to involve children.

- How do communities participate in the restoration process?

In all restoration strategies, communities will be participants and process leaders. Community delegates agree that women play a major role, which can be complemented by the participation of children, who will grow learning better ways of relating to nature. This will make it easier for children and young people to grow up with identity.

- How will the restoration be monitored?

The baseline survey will be done at each site and women are expected to be able to participate in the monitoring system. The delegates of the communities consider that it is a good strategy, also that orchards and nurseries are managed by them, as they are more responsible and contribute much to the care of the family. They also consider seed collection and sowing important. They suggest that men work in channels restoration because it is heavier work.

- The loss of the marshes is due to livestock, what do you intend to do in the project in this regard?

Voluntary protocols will be established, which consists in applying a code of good practice with farmers. It will seek to establish an alliance with Fedegan in order to have greater impact in the region.

- How does the project intend to solve the issue of micro aqueducts?

For rural micro - aqueducts it is proposed to replace or complement the electric or diesel pumping system for solar energy, and to work with communities on self sustainability strategies, through the strengthening of water boards. The priority of these systems will be for human consumption.

## **Conclusions**

- The representatives of the four organizations consider that the project will bring significant benefits to families, and commit themselves to communicate to their organizations the proposal developed by DNP, FA and UNDP.
- UNDP is committed to include the areas recommended by the delegates of the communities, as they are the most vulnerable and the most important to the communities for the services they provide:

Micro aqueducts of the zones of Las Delicias, El chupo, Caño Caima, El Cauchal and all the zone of Caño Rabón and El Limón.

Improve water for human consumption in the areas of Malambo, San Cayetano and la Palma, Monteria - Isla Grande.

Give priority to improve micro - aqueducts in schools.

- The team is committed to inform communities about the progress and results of the project to be presented to the Green Climate Fund.

Annex:.





Actividad: Socialización Proyecto GCF con Organizaciones de Negritudes de La Matanza  
Lugar: San Marcos Sucre.  
Fecha: Febrero 2017.

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Observaciones:



Actividad: Socialización Proyecto 6CF con organizaciones de Negritudes de La Majamel  
 Lugar: San Marcos Surco  
 Fecha: Febrero 8/2017

DATOS DE LOS ASISTENTES

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Observaciones

**CONSULTATION OF THE PROJECT FORMULATION PROCESS FOR GCF**  
**MINUTES OF MEETING WITH THE COMMUNITY OF LAS DELICIAS – SAN BENITO ABAD**

**PLACE:** Las Delicias

**DATE:** February 8<sup>th</sup>, 2017

**Meeting attendees:** See attached list

**Agenda de la reunión**

1. Presentation of the project proposal to be submitted to the GCF
2. Perspectives on the project and recommendations for its feasibility
3. Commitments

**Summary of the meeting**

The representative of the DNP explains that the project is currently being formulated and consultations are being held with municipalities and communities to collect their proposals, identify ongoing initiatives and also be able to better identify the areas where activities will take place of the project. It is explained that the project will be submitted to the Green Climate Fund in July and will be informed of the decision taken by the fund.

The presentation of the project is initiated by the UNDP Consultant, explaining the components of the project:

- i) Rainwater harvesting systems for families and nucleated communities,
- ii) Proposal for the restoration of wetlands (channels, zapales and marshes),
- iii) Management of water and food gardens for food security with adapted species,
- iv) Early warning systems,
- v) Knowledge management.

It is explained that the main impacts of the project will be to provide quality water for human consumption and that new wells will not be opened to avoid pressure on aquifers. Likewise, it is hoped that by improving the quality of wetlands, the quality of life of the population that depends most on them can be improved.

Emphasis is given to the explanation of the water catchment systems and water quality assurance systems proposed in the project, as well as the importance of wetland restoration.

During the presentation, the delegates of the community organizations expressed their opinions and concerns, as well as their proposals. Its main comments are:

The Delicias community expresses that they have a micro aqueduct with permanent water, the water is taken from a well that is 72 meters deep, but this water has no treatment although they consider that the water has good quality. Now they have an electric pump, although the light goes away two days a week. For the maintenance of the micro aqueduct are charged two thousand pesos, this money is handled by a person from the community.

They consider that the alternative of the tanks is very good as a complement to the micro aqueduct.

Regarding the restoration of wetlands, they consider it very important because the presence of fish has decreased greatly in the San Jorge River. The Delicias channel feeds this river, its recovery and the recovery of other channels would help to the fishermen of the region. They recommend that the restoration include trees such as Cantagallo and Guamo, because these species were lost with the floods of 2010 and 2011

On the early warning system (SAT), they say that it would be good to use radio and stations such as Caracol and La Voz de San Marcos, which are the ones they listen to most, also express that those who have cell phones mainly use the CLARO service. Currently, young people consult the elderly to establish the dates of sowing, then they recommend that old people be taken into account in the EWS.

The community cultivates mainly Creole rice, they sow in April and harvest in August, they would like to have an irrigation system.

The team is committed to inform communities about the progress and results of the project to be presented to the Green Climate Fund.





LISTADO DE PARTICIPANTES

FECHA: 08/02/2017  
 Lugar: Los Delicias / San Benito Abad  
 Evento: Presentación proyecto BCF Comunidades.  
 Preside: Imena Puyana

No.	NOMBRE Y APELLIDO	ORGANIZACIÓN/ VEREDA	Teléfono	Correo electrónico	FIRMA O HUELLA
1	Jessica Lopez	PNUD	3204101151	jessica.lopez@pnud.org	[Firma]
2	Wilber Ramirez Campo	PNUD	3208092294	wilbercampos@pnud.org	[Firma]
3	Aracely Rivera Gonzalez	Los Delicias	3147495266		[Firma]
4	ENDRY ANIETA	Los Delicias	3145128976		[Firma]
5	Elizabeth Anaya	Los Delicias	3106077443		[Firma]
6	Elizabeth Rivera	Los Delicias	3147495266		[Firma]
7	Damaris Celys Anieta	Los Delicias	3136458411		[Firma]
8	Daniel Celys	Los Delicias	3135318535		[Firma]
9	Ingry Cali	Los Delicias	3147339445		[Firma]
10	Imena Arrubio P	Los Delicias	31330875		[Firma]
11	Amalia Anieta	Los Delicias	64620055		[Firma]
12	Lucia Antonia Anieta	Los Delicias	3138051246		[Firma]
13	Maria Diaz	Los Delicias	31355576		[Firma]
14	Melfi Bozet Anieta	Los Delicias	3122983986		[Firma]
15	Damelez E caly	Los Delicias	315507058		[Firma]
16	Arthana Celys IG.	Los Delicias	3205447132		[Firma]
17	Rafael Anieta U.	Los Delicias	3176332444		[Firma]
18	ARCELMACALI	Los Delicias			[Firma]
19	NURY ANIETA A.	Los Delicias			[Firma]
20	YARIS CALY	Los Delicias	3126088487		[Firma]
21	OSNO JOSE LOPEZ	Los Delicias			[Firma]



LISTADO DE PARTICIPANTES

FECHA:

Evento:

Lugar:

Preside:

No.	NOMBRE Y APELLIDO	ORGANIZACIÓN/ VEREDA	Teléfono	Correo electrónico	FIRMA O HUJELLA
1	Rosmini vides	Las Delicias	3174026876		Rosmini's
2	NAVIS CAJIZ	Las Delicias	3116554036		NAVIS CAJIZ
3	YOLANIS AMIETA	Las Delicias			
4	John Jairo Villegas	Las Delicias	3105312491		John Jairo Villegas
5	Luz Vanelis Benitez	Las Delicias	3116949304		Luz Vanelis Benitez
6	ANA ROSA LOPEZ	Las Delicias			
7	DANLOTT AMIETA	Las Delicias			
8	Nancy Cardenas	Las Delicias	3146562931		Nancy Cardenas
9	Ingrid Carrasans	Las Delicias	3145574719		Ingrid Carrasans
10	MARIVEL'S PACHECO A	Las Delicias	3225034581		MARIVEL'S PACHECO A
11	Sandra Milena Rojas	Las Delicias	3128564782		Sandra Milena Rojas
12	Moana Madroga	Los Delicias	3129717211		Moana Madroga
13	JULIA AMIETA	Las Delicias	3126969515		JULIA AMIETA
14	YVIDA AMIETA	Las Delicias	3106319087		YVIDA AMIETA
15	Silvia Amieta	Las Delicias			Silvia Amieta
16	Deisy Araya	Las Delicias			Deisy Araya
17	Alejandra Villegas	Las Delicias			Alejandra Villegas
18	KAREN NAVIETA	Las Delicias			KAREN NAVIETA
19	FELISA KUDRYAVTSEVA	Las Delicias	3145040174		FELISA KUDRYAVTSEVA
20	Jorge Araya	PNUD	3158261129	Jorge.Araya@Cund.und.gov.co	Jorge Araya
21					

**CONSULTATION OF THE PROJECT FORMULATION PROCESS FOR GCF**  
**MINUTES OF MEETING WITH REPRESENTATIVES OF LOCAL GOVERNMENTS**

**PLACE:** Corpomojana's office

**DATE:** February 6th, 2017.

**Meeting attendees:**

**Representatives of local organizations**

1. Rodolfo Hernandez, Secretary of government of the municipality of San Marcos
2. James Machado Acosta, Professional of agricultural affairs office of the municipality of Majagual
3. Miguel Acosta, Secretary of government of the municipality of Caimito
4. Cesar Payares, Planning secretary of the municipality of San Benito Abad

**Representatives of the national government**

1. José Gabriel Sorzano, Coordinator of La Mojana project of the Adaptation Fund
2. Diego Rubio, Representative of the DNP Sustainable Development office

**Adaptation project team in La Mojana region – MADS/UNDP**

1. Project coordinator, Diana Diaz
2. Restoration specialist, Andrés Santamaría
3. Specialist in hydrology, Zaira Cuervo

**UNDP**

1. Climate finance consultant, PNUD Montserrat Xilotl
2. Advisor on the area of sustainable development, Claudia Capera

**Meeting Schedule**

1. Presentation of the project proposal to be submitted to the GCF
2. Perspectives on the project and recommendations for its feasibility
3. Commitments

**Summary of the meeting**

The meeting begins with the presentation of the project by the UNDP team, which explains the solutions of systems for the collection of quality water for human consumption, and explains the importance of restoring wetlands.

The DNP emphasizes that the project is a joint effort of different institutions since the adaptation to climate change in the region is considered a national priority and the commitment of the municipalities is required.

During the presentation the following comments or doubts were made:

- There are difficulties for the paradigm change in the processes of ecosystem management
- The greatest impact of climate change is due to agricultural processes
- It is important to have a strategy of working with the productive sector to understand the importance of restoration and its contribution to the improvement of agricultural production
- It is difficult for professionals in the region to increase their technical skills because they do not have facilities to participate in training processes
- The municipality of San Benito has 21 corregimientos, which are mainly supplied with groundwater, there are 26 micro-aqueducts veredales that supply the village with poor quality water.
- In Majagual it is emphasized that there are already systems to collect rainwater and that it is necessary to improve the aqueducts and the quality of the water that they provide to the population
- In general, the representatives of the municipalities emphasize the need to improve the existing micro-aqueducts and the energy systems used.
- Drinking water supply systems have high operating costs
- The connectivity of pipes and marshes has been lost because of sedimentation and eutrophication. They emphasize that livestock farming is the activity that generates the greatest pressure on wetlands.
- The role of women is little recognized, but they are responsible for maintaining the home, in San Benito there is an experience in which women already carry out monitoring for the system of risk alerts.
- They raise the need to strengthen UMATAS within the scope of what is proposed in component 3 of the project, in order to strengthen agricultural technical assistance provided by the municipalities.
- Culturally, people do not usually pay for access to water in some municipalities. In other municipalities, the community organizations make the effort to charge a minimum fee to be able to carry out the maintenance and in case of any damage of the structures the communities request support from the mayor to fix it.
- They suggest to present the project to the Municipal Councils of rural development to generate commitment and appropriation of the local actors

### **Clarifications**

It is clarified by the team members that component 3 is focused on food security and that the project does not cover the development of basic sanitation systems.

The team will send to the mayors a document to collect standardized information about:

- Characterization of existing microaqueducts
- Water needs at the household level and how they are being served.
- Organizational schemes around the management and distribution of water
- Verification of livelihoods in dispersed rural areas
- Verification of the current system of early warning and rural extension

### **Commitments**

- The municipalities will indicate to the team which are the priority areas for conservation and restoration
- The team will send to the mayors a document to collect standardized information
- The mayoralties commit to deliver the information on February 10.

## **REUNION ALCALDES CON LOS MUNICIPIOS PARA FORMULACIÓN PROYECTO GCF**

**LUGAR:** CORPOMOJANA

**FECHA:** 6 de febrero

**Asistentes:**

### **Representantes de los gobiernos locales**

1. Secretario de Gobierno del municipio de San Marcos: Rodolfo Hernandez
2. profesional encargado de la oficina de asuntos agropecuarios de Majagual: James Machado Acosta.
3. Secretario de Gobierno del municipio de Caimito: Miguel Acosta
4. Secretario de Planeación de San Benito Abad, Cesar Payares

### **ENTIDADES NACIONALES**

1. Fondo Adaptación. Coordinador del macro proyecto la Mojana: José Gabriel Sorzano
2. Consultor DNP, Subdirección de Desarrollo Ambiental Sostenible, Diego Rubio

### **PNUD**

1. Consultora en financiamiento climático, PNUD Montserrat Xilotl
2. Coordinadora del proyecto de Adaptación, del protocolo de Kioto, Diana Diaz
3. Profesional del proyecto de Adaptación, empoderamiento productivo, Andrés Santamaría
4. Profesional del proyecto de Adaptación, especialista en Hidrología, Zaira Cuervo
5. Asesora del área de desarrollo sostenible, Claudia Capera

### **Agenda de la reunión**

1. Presentación de la propuesta de proyecto a presentar al GCF
2. Perspectivas sobre el proyecto y recomendaciones para su viabilidad
3. Compromisos

### **Desarrollo de la Reunión**

se inicia la presentación del proyecto por parte de la Consultora del PNUD, se explica cuáles serían los sistemas de captación de aguas y de aseguramiento de la calidad de la misma, de igual manera se explica la importancia de la restauración de los humedales. El DNP hace énfasis en que es un esfuerzo mancomunado diferentes instituciones ya que la adaptación de la región es considerada prioridad nacional y se requiere la complementariedad y el compromiso de los municipios. Durante la presentación se realizaron los siguientes comentarios o dudas:

- Existen dificultades para el cambio de paradigmas en los procesos de mantenimiento de los ecosistemas

- El mayor impacto del cambio climático se da por los procesos agropecuarios.
- Es importante tener una estrategia de trabajo con el sector productivo para que comprendan la importancia de la restauración y su aporte al mejoramiento de la producción agropecuaria.
- Los profesionales de las entidades de la región les queda difícil aumentar sus capacidades por no tener facilidades en participar los procesos de formación.
- El municipio de San Benito tiene 21 corregimientos, que se abastecen principalmente de aguas subterráneas, 26 micro acueductos veredales. diagnóstico 6 años, De acuerdo con la información de la alcaldía el agua presenta de baja calidad.
- En Majagual se destaca que ya existen sistemas de aguas lluvias y que se requiere mejorar los acueductos y la calidad del agua que brindan a la población.
- En generar los representantes de las alcaldías destacan la necesidad de mejorar los micro acueductos veredales existentes y los sistemas de energía que los soportan.
- Existe alto costos operativos en los sistemas de abastecimiento.
- Existen dificultades en la conectividad de los caños ciénagas ( sedimentados, eutrofización), por ello es muy importante el mantenimiento de los caños. De igual manera se destaca la ganadería es la actividad que genera mayor presión a los humedales.
- El rol de las mujeres es poco reconocido, pero son las encargadas del mantenimiento del hogar, en San Benito existe una experiencia en la cual las mujeres ya realizan monitoreo para el sistema de alertas de riesgo.
- Se plantea la necesidad de fortalecer las UMATA se visibiliza como un aspecto para ser incorporado en el componente 3, y se evidencia la necesidad de fortalecer la poca asistencia técnica agropecuaria.
- Se destaca que existe una cultura del no pago en algunos municipios, en otros las organizaciones comunitarias hacen el esfuerzo de tener in mantenimiento mínimo y en caso de daños estructurales se requiere el apoyo de la alcaldía. por lo cual se requieren estrategias, lo que dificulta la sostenibilidad de la infraestructura (abastecimiento
- Se sugiere presentar el proyecto a los Consejo Municipal de Desarrollo Rural, para generar compromiso para generar compromiso con actores locales y asegurar sostenibilidad.

### **Aclaraciones**

Se aclara que el componente 3 es enfocado a la seguridad alimentaria y que el proyecto no abarca el desarrollo de sistemas de saneamiento básico.

Diana Diaz enviará un formato en excel para recoger la información estandarizada que se ha solicitado, sobre:

- Caracterización de los micro acueductos existentes
- Necesidades de agua a nivel hogar y como se están atendiendo
- Esquemas organizativos en torno al manejo y distribución del agua
- Verificación de medios de vida en zonas rurales dispersas

- Visita a infraestructura pública institucional (instituciones educativas, centros de salud, centros deportivos) para evaluar condiciones de viabilidad de sistemas de recolección de agua
- Verificación del sistema actual de alertas tempranas y de extensión rural

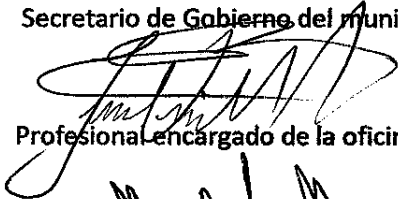
#### **Compromisos**

- Las alcaldías indicarán al equipo cuales son las zonas prioritarias para conservación y restauración
- Diana Diaz enviará un formato en Excel para recolectar la información requerida
- Las alcaldías se comprometen a entregar la información el 10 de febrero

Siendo las 12 y 30 se dio por concluida la reunión.

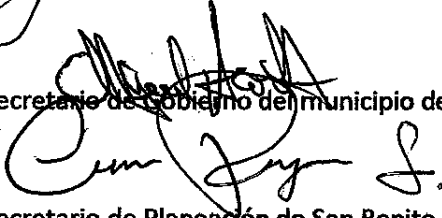
#### **ALCADIAS**

Secretario de Gobierno del municipio de San Marcos: Rodolfo Hernandez



Profesional encargado de la oficina de asuntos agropecuarios de Majagual: James Machado Acosta.

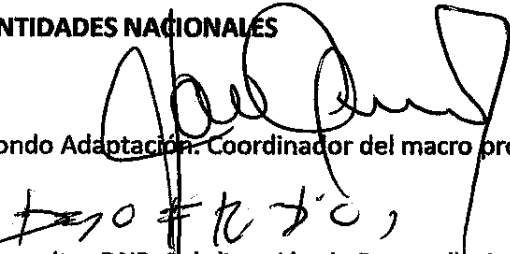
Secretario de Gobierno del municipio de Caimito: Miguel Acosta



Secretario de Planeación de San Benito Abad, Cesar Payares

#### **ENTIDADES NACIONALES**

Fondo Adaptación. Coordinador del macro proyecto la Mojana: José Gabriel Sorzano



Consultor DNP, Subdirección de Desarrollo Ambiental Sostenible, Diego Rubio

#### **PNUD**



Consultora en financiamiento climático, PNUD Montserrat Xilotl

## **CONSULTATION OF THE PROJECT FORMULATION PROCESS FOR GCF**

### **MINUTES OF MEETING WITH THE REPRESENTATIVE OF GUARANDA´S MAYOR OFFICE**

**PLACE:** Guaranda´s mayor office

**DATE:** February 9th, 2017

**Meeting attendees:** See attached list

#### **Agenda de la reunión**

1. Presentation of the project proposal to be submitted to the GCF
2. Perspectives on the project and recommendations for its feasibility
3. Commitments

#### **Summary of the meeting**

The representative of the DNP explains that the project is currently being formulated and consultations are being held with municipalities and communities to collect their proposals, identify ongoing initiatives and also be able to better identify the areas where activities will take place of the project. It is explained that the project will be submitted to the Green Climate Fund in July and will be informed of the decision taken by the fund.

The presentation of the project is initiated by the UNDP Consultant, explaining the components of the project:

- i) Rainwater harvesting systems for families and nucleated communities,
- ii) Proposal for the restoration of wetlands (channels, zapales and marshes),
- iii) Management of water and food gardens for food security with adapted species,
- iv) Early warning systems,
- v) Knowledge management.

It is explained that the main impacts of the project will be to provide quality water for human consumption and that new wells will not be opened to avoid pressure on aquifers. Likewise, it is hoped that by improving the quality of wetlands, the quality of life of the population that depends most on them can be improved.

Emphasis is given to the explanation of the water catchment systems and water quality assurance systems proposed in the project, as well as the importance of wetland restoration. The DNP emphasizes that the national government has prioritized this region to present the project to the Green Climate Fund, and it is a joint effort of different institutions that requires the commitment of municipalities.

The delegate of the City Hall explains that the aqueduct of the municipality takes water from a deep well, the water is of poor quality with presence of coliforms, and also presents damages in the pipes. Regarding micro-aqueducts rural explains that there are 13 that distribute water not suitable for human consumption and additionally the wells are dried in summer. During the drought, the municipality covers the deficit with tanker trucks that bring water to the rural population, the

population on the other hand contracts horse-drawn carts that travel long distances to collect water from ponds or wells with available water. She considers rainwater solutions very important, especially because of their positive impacts on the health of the rural population.

Regarding the restoration of wetlands, the Rabón channel is considered fundamental, because of the importance for the economy and the life of the rural population. Also, the Ciénaga de la Estrella, Gavaldá, Ciénaga la Castellana especially in the sectors between Gavaldá and Villanueva, the channels of Nueva Esperanza and Bejuco. The recovery of the zapales is considered fundamental and also, promote actions for the decontamination of heavy metals.

In relation to home gardens, it is recommended to emphasize the production of fruit trees such as coconut, sapote, citrus, guava, mango and also consider the cultivation of cacao. It is recommended to include in the early warning system (EWS) the management of pests and diseases associated with climate, so that producers can reduce losses and manage their crops better, as well as recommend varieties that are more resistant to climatic phenomena.

They consider that early warning systems often fail to transfer information to communities and producers, and there is no good institutional articulation. It is recommended to transmit information through mobile phones with text messages or WhatsApp, which is widely used by communities and institutions in the area. It is also suggested to use the local radio station La Voz de la Mojana and strengthen community action boards so that they can receive and use information.

Finally, it is agreed that the mayor will send a letter of co-financing to support the presentation and execution of the project. The UNDP team will, if possible, include the recommendations made by the mayor, especially those related to priorities for water supply, restoration and EWS.



LISTADO DE PARTICIPANTES

FECHA: 08/02/2017      Evento: Presentación propuesta GCF  
 Lugar: Guaranda      Preside: Claudia Capera

No.	NOMBRE Y APELLIDO	ORGANIZACIÓN/ VEREDA	Teléfono	Correo electrónico	FIRMA O HUELLA
1	Franklin Portinoz	Cabecan	3106179534	banco de proyectos@guanda-sucor.gov.ec	
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4	Vladimir Lopez J.	PNUD	3215377048	claudia.zafra@undp.org	
5	CLAUDIA VA CAPERA	P.N.U.D	3112303164	2010-10@hotmail.com	
6	Zaira Carolina Ceno F.	PNUD	3196997013		
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## **ANNEX XIII (c) – Stakeholders Engagement Plan**

GREEN CLIMATE FUND FUNDING PROPOSAL



### **ANNEX 2: GENDER CONSULTATIONS**

**Acta del proceso socialización con organizaciones de mujeres del proyecto  
“Manejo integral del recurso hídrico como estrategia para la adaptación al cambio  
climático de las comunidades más vulnerables en La Mojana”**

**Fecha y lugar:** 29/11/2016, sala de reuniones PNUD, Avenida 82 # 10 – 62, piso 2

**Duración:** Dos horas

**Agenda:**

1. Presentación de Asistentes
2. Presentación del proyecto por parte del equipo PNUD
3. Recomendaciones de parte de las organizaciones asistentes
4. Compromisos

**Desarrollo de la reunión**

**1. Presentación de Asistentes**

En la reunión participaron las siguientes personas:

- Neiffi Porras, representante de la Consejería presidencial para la equidad de la mujer
- Claudia Mejía, directora Corporación SISMA mujer
- Carolina Melo, oficial de género PNUD
- Jessica Zapata, profesional del área de Desarrollo Sostenible

**2. Presentación del proyecto**

El PNUD hace la presentación de la propuesta del proyecto “Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de las comunidades más vulnerables en La Mojana” que será presentada al Fondo Verde del Clima. Se explica que el proyecto tiene como objetivo “Fortalecer la resiliencia de las comunidades vulnerables en la región de La Mojana a la variabilidad y los riesgos climáticos mediante el manejo integrado de los recursos hídricos”, el cual tiene 4 componentes que son:

Componente 1: Mejor conocimiento sobre el impacto del cambio climático en el manejo del agua.

Componente 2: Infraestructura del agua y servicios ecosistémicos adaptados al cambio climático.

Componente 3: Sistema de alertas tempranas adaptado al cambio climático.

Componente 4: Agro-ecosistemas resilientes para mejorar los medios de vida de las comunidades.

Se presentaron los actores involucrados (DNP, MADS, FAN, PNUD GCF), objetivos específicos, los elementos centrales de cada componente y los resultados esperados. Se hizo énfasis que el proyecto busca aumentar la resiliencia de las comunidades frente a los problemas asociados al cambio y la variabilidad climática a través de la gestión integral del recurso hídrico en la región.

Se hizo especial énfasis en mostrar la forma en que se incluirán a las mujeres en cada uno de los componentes del proyecto y cómo el enfoque de género se incluyó transversalmente en toda la propuesta. Para ello, se revisaron algunos apartes de la estrategia de género construida para el proyecto.

Se explicó también cuál ha sido el proceso de socialización que se ha adelantado con 8 organizaciones de mujeres de la región de La Mojana. Cuáles fueron los principales aportes de las organizaciones al proceso de formulación del proyecto y como se incluyeron sus recomendaciones de forma integral en la propuesta construida.

### **3. Recomendaciones para la inclusión del enfoque de género el proyecto**

Las organizaciones participantes reconocieron la importancia que tiene el proyecto en la región y específicamente reconocen el impacto positivo que puede traer el proyecto para cambiar las condiciones de vulnerabilidad de las mujeres de La Mojana y contribuir en la búsqueda de igualdad de género.

Los aportes hechos por la Consejería presidencial para la equidad de la mujer y la Corporación SISMA mujer se pueden sintetizar en los siguientes puntos:

- Es común encontrar proyecto donde las estrategias de género al ser transversales a todos los componentes no terminan siendo realmente incluidas o apropiadas durante la implementación de actividades. Se recomienda hacer explícito en los nombres de las actividades y su descripción, cual es la forma en que las mujeres participarán como actores esenciales en el cumplimiento de las metas.
- Definir con mayor claridad cuál es el rol de las mujeres o de las organizaciones de mujeres en las distintas instancias del arreglo de ejecución del proyecto. Definir qué tipo de aporte se espera que den al proyecto y que tipo de decisiones recaerán sobre ellas.
- Incluir en la estrategia de género del proyecto aspectos de la Estrategia de Montevideo para alcanzar la igualdad de género en la región al 2030. Esta estrategia es un acuerdo de carácter regional que los Estados miembros de la CEPAL deben adaptar a sus prioridades, planes de igualdad de género y de derechos, planes de desarrollo sostenible y políticas y presupuestos nacionales (La Estrategia fue

aprobada por los 38 miembros de la CEPAL en la XIII conferencia regional sobre la mujer de América Latina y el Caribe).

- Se propone que las organizaciones de mujeres de la región tengan un puesto en alguna instancia de toma de decisiones del proyecto (ya sea el comité técnico u otro) donde tengan un poder decisorio y puedan orientar discusiones. Este puesto podría rotarse entre las distintas organizaciones de la región cada cierto tiempo.

#### **4. Compromisos**

1. Por parte del PNUD: entregar la presentación del proyecto y la estrategia de género del mismo para la revisión por parte de las organizaciones participantes de la reunión. Además, incluir las recomendaciones hechas por las organizaciones en la propuesta de proyecto.
2. Por parte de las organizaciones participantes de la reunión: Al considerar que es de gran importancia la iniciativa que está siendo formulada para la presentación ante el FVC, se comprometen a socializar al interior de sus organizaciones el proyecto y brindar el apoyo requerido para incluir el enfoque de género en la totalidad del proyecto.

(CERTIFIED TRANSLATION OF A DOCUMENT WRITTEN IN SPANISH)

**Community consultation process in *La Mojana* region. Formulation of the project “Water management Improvement to increase the climatic resilience of vulnerable communities in *La Mojana*”; to be submitted before the Green Climate Fund**

**Date: From October 31<sup>st</sup> to November 3<sup>rd</sup>:**

16 communities in the municipalities of Guaranda, Majagual, San Benito, Achí, Nechí, Ayapel, San Marcos, San Jacinto del Cauca and Caimito were visited.

**Table 1. Communities consulted for the formulation:**

<b>Municipality</b>	<b>Community</b>	<b>Association</b>	<b>Type of Association</b>	<b>Number of participants</b>	<b>Contact</b>
Achí	Buena Vista	Association of Women of <i>Buena Vista</i>	Women	25	Nerlenis de Hoyos 321 5741786
Ayapel	Tierral Alta	Association of Farmers and Fishermen of <i>Paraíso de la Fe</i>	Mixed (9 women)	23	Hortensia Isabel Barros 3205086527-3207769257
	Sejeve	Association of Fishermen and Farmers of <i>Bocas de Sejeve</i>	Mixed (16 women)	38	Wilfrido Cardenas: 311 3192540
	Cecilia	Association of Farmers, Fishermen and Breeders of <i>Cecilia</i>	Mixed (56 women)	116	Yorleida Lucia Cochera: 3046100260
Nechí	Las Flores	Association of Female Victims of <i>Las Flores</i>	Women	30	Beatriz Palencia: 3122873181
	Correntoso	Association of Female Victims of <i>Correntoso</i>	Women	25	Erika Romero: 312 4489921
Guaranda	Las Pavas	Association of Small Agricultural	Mixed (50% are women)	27	José Domingo Rodelo

Attendance lists are attached

		Producers of <i>Las Pavas</i>			Villamizar: 311 6681678
	Tierra Santa	Association of Peasant Women, small Producers of <i>Tierra Santa</i>	Women (2 men have been included)	15	Zaida Molina: 3126679195
San Jacinto del Cauca	Caimital	Association of Working Women of <i>Caimital</i>	Women	20	Zoraya Castro: (57)321541529 8 (57)312663299 3
	La Loma	There is not any Association	NA		Edison Arriola: (57)310675426 1
San Benito	Cuiva	Association of Women of <i>Cuiva</i>	Women	98	Ludis Corpas: (57)301282359 2
	Tosnovan	Agricultural Association of Afro-Descendants and Peasants	Mix	26	Iván Ricardo Jimenez: (57)310512781 8
Majagual	Miraflores	Female Association of Small Peasants of Miraflores	Women	25	Silvana Tovar: (57)312662767 7
Caimito	Tófeme	Agricultural and Environmental Association	Mix (11 women)	25	Alberto Rivero: (57)320598376 5
	Nueva Estación	<i>Red Unidos</i> Association of <i>Caimito</i>	Women	25	Sixta Delgado: (57)311471603 9
San Marcos	El Torno	Association of Peasant Women, fishermen, and farmers of <i>El Torno</i> Village	Mix (5 Women)	72	Antonio Madera: (57)321503966 0

**1. Introduction of UNDP and Strategic partners.** UNDP's Mission is introduced. Next, the work performed by UNDP in Colombia, in *La Mojana* region in particular, is explained.

Attendance lists are attached

Then, the National Adaptation Fund and the DNP are briefly introduced. It is later explained that the idea of this project is framed within *La Mojana* Action Plan, which is led by the National Adaptation Fund, whose objective is to contribute to the Climate Change adaptation processes taking place at *La Mojana*.

**2. Presentation of GCF proposal:** It is first emphasized that this consultation process is framed within the formulation of the project. Therefore, it is made clear that UNDP, FAN, and DPN do not currently have the funds needed to implement the project. The project is in its formulation phase and thus, it does not represent a commitment from UNDP or from any of its strategic partners towards the communities.

**3. Consultation on the relevance and interest of the communities regarding the proposal, and their willingness to participate in case the project is approved.**

After the introductions and explanation of the project's approach, possible results, and actions, the following questions were asked.

**3.1 If this proposal is approved, do you think it will contribute to the solution of some of the Climate Change-related issues that the community is currently facing?**

*Communities' response:* Yes, because during dry seasons it is hard to get water for human consumption. In the communities where there are micro-aqueducts, the wells decrease their yield significantly and it becomes difficult to provide water. Creeks dry out causing the contamination of their waters to increase. (Tierra Santa-Las Pavas-Guaranda-Correntoso-Nechí and Miraflores-Majagual). Many families that face this problem have chosen the alternative option to build artisan wells in the back or front yards of their houses.

The communities that benefit from artisan wells suffer a more critical situation during the dry seasons since the wells dry completely and families have to pay for water or bring it over from other communities. They sometimes have to walk up to three kilometers (Correntoso-Nechí; Tosnovan San Benito). In cases when they have to pay for water, they have to make a daily investment of USD \$0.5. Those who do not have the resources to pay for it, they take it from the nearest creeks and rivers.

Where there is flooding, the consulted communities that have micro-aqueducts state that the aqueducts get contaminated since the designs did not take into account elements of risk management. Thus, there is infiltration in the wells (El Torno-San Marcos- Buena Vista-Achí, Cecilia, Tierra Alta and Sejeve, in Ayapel).

The raining season represents an opportunity for the families since during in they take advantage of the rainy season to 'harvest' rainwater but they have low storage capacities. The average storage capacity per family is 1.500 liters. The most critical periods to access water are the long dry seasons. Families state that in the last El Niño phenomenon, they suffered for about 3 or 4 months.



Handmade well. Tosnovan, San Benito. UNDP Photo.

**3.2 If the project is approved, how do you think that agricultural production and family food security will improve?**

Attendance lists are attached

Upland rice is the community's primary product. Since it is grown in the rainy seasons, it depends on the rainfall patterns. The consulted families do not count on a risk system, which according to them places them under greater vulnerability. Since the families do not have appropriate tools to plan the crops, they have sometimes had many losses due to adverse climate conditions. *"We sometimes sow to see if it works, we sow to win or lose"*. Under these circumstances, families state that the project actions would facilitate crop diversification, decrease the dependence on rice monoculture and allow for a variety of sowing processes according to the rainfall patterns and dry periods.

Similarly, the families stated that their life conditions would improve by means of the incorporation of crop techniques which adapt to the new climate conditions of the region, for example, the implementation of irrigation systems, or the identification of crops resistant to flooding or prolonged dry periods.



Rise crop in Torno – San Marcos community – UNDP Photo.

Regarding the restoration of the ecosystem, the families stated that starting to work on the protection of the ecosystem is an urgent need. A lot of flora and fauna have disappeared from the region because of wetland deterioration, which has meant the loss of a lot of eco-systemic services. Additionally, the prolonged dry periods have dried up the water bodies and temperatures are higher. The expansion of the community's agricultural and cattle-breeding processes is one of the factors that has contributed to the depletion of wetlands. During the dry seasons, the crop and livestock practices have to be carried out in wetland zones so that families can grow their crops or keep the cattle.



San Marcos Rural Area Photo. UNDP.

### **In case this project is approved, would the community be interested in participating and how?**

All the consulted communities expressed their interest in participating. They stated that the associations are willing to take the necessary actions to include other members of the community in the project. Women, in particular, said that they are willing to work on the restoration and conservation of wetlands. They say they are aware that these wetlands are a source of resources that contribute to their wellbeing.

They believe that a project like this will give them the possibility to manage their most important asset: their forests, rivers, and wetlands. They are also interested in production opportunities since they represent an alternative to improve their life conditions.

### **General aspects found in the consultation with associations and communities:**

#### **Water management:**

Eighty percent (80%) of families say that they currently have access to only 20 liters of water per day (to cook and for human consumption).

One hundred percent (100%) of the consulted families say that water for human consumption is untreated.

Ninety-nine percent (99%) of the families collect water from rainwater.

One hundred percent (100%) of the micro-aqueducts from the consulted communities do not have water treatment systems.

One hundred percent (100%) of the communities consulted say that they are willing to pay for the cost of access to water to maintain the systems.

One hundred percent (100%) of the communities that have rural micro-aqueducts have weak management of water boards.

Most of the associated members do not have appropriate crop management techniques according to the climate of the region.

One hundred percent (100%) of the communities that grow rice recognize that crop storage would be an important benefit, especially in times of drought; since they could store their product and not sell it at a lower price in times of higher production.

One hundred (100%) of the consulted associations say that they require support processes to strengthen their capacities of management and internal and community organization.

Communities are aware of the importance of maintaining and caring for wetlands and water bodies since they have witnessed more and more how they are losing their functionality.

The families stated that they are willing to pay between COP\$ 2.000 and COP\$ 3.000 a month to have access to water.

(I, SANDRA MILENA PINILLA BARRERO, Sworn Certified Translator and Interpreter for the English-Spanish, Spanish-English languages, appointed pursuant to Competence Certificate No. 0324 by the National University of Colombia and duly registered before the Ministry of Foreign Affairs, do hereby certify that the above translation fully corresponds to the original document written in Spanish. In witness whereof, I have hereunto set my hand and affixed my Official Seal on this 30<sup>th</sup> day of November, 2016. Translator's Contact Information: (571) 6135182, (57) 3002315608, Calle 116 # 71 A 25 Of. 202, traducciones@angloservicios.com, www.angloservicios.com)

## Summary Table

### Prior consultation with women's organizations

In all of the cases, it is emphasized from the start that this prior consultation process is part of the project's formulation stage; therefore, it is clarified that the UNDP, FAN (National Adaptation Fund) and DNP (National Planning Department) do not currently have funds in place for the implementation of the project.

Date and place	Entities/ organizations consulted	Main topics addressed and recommendations/conclusions
11/03/2016. Aché. Bolívar	Buena Vista Women's Association	This community showed interest in participating in: <ul style="list-style-type: none"> <li>• Water component, as they have organized a water committee which is managing the micro-aqueduct.</li> <li>• Production-related areas, mainly rice and cassava.</li> </ul>
11/01/2016. San Jacinto del Cauca- Bolívar	Working Women of Caimital Association.	They are interested in participating in the project because they are receiving training in production-related matters; however, owing to the impacts of the climate, as seen in recent floods, they have not been able to make progress with these initiatives. They do not possess knowledge about adaptation measures, and grow their crops in the traditional way. The women have expressed a desire to perform restoration work, since that way they will be able to look after the water bodies.
11/02/2016 Nechi- Antioquia	Victims of Las Flores Association	The women of this association have expressed interest in participating in the project, because this would help them strengthen their organizational processes. The women are interested in working with production-related projects associated with rice and maize. Regarding water access, although they have a micro-aqueduct, the water is not potable and is susceptible to spoilage in time of drought or flooding. They have said they would be interested in receiving project training that would enable them to organize community management of the micro-aqueduct.
	Victims of Correntoso Association	This association is interested in receiving support from the project that helps them in the area of organizational strengthening. They have shown interest in the project helping them obtain a micro-aqueduct, since they do not have access to water and periods of prolonged drought mean they need to work harder to get water. They also showed interest in working with rice crops.
11/03/2016. San Benito Abad- Sucre	Cuiva Women's Association	They are happy to participate in the project. They find climate-adapted water solutions and their participation in restoration work and production-related processes to be relevant to their community.

11/02/2016 Majagual- Sucre	Little Countrywomen's Association of Miraflores	<p>The women of this association have shown interest in mounting a rice initiative and having the tools that would allow them to conserve their agricultural products for when the dry season comes so that they do not need to buy other, more expensive food.</p> <p>They also say that there are streams in the community that have been drying up and it would be good to get them back, as this would allow fishing to return to the area.</p>
11/03/2016 Guaranda- Sucre	Countrywomen's association, small growers of Tierra Santa	<p>The women of these communities have shown interest in topics related to water access, owing to the fact that in times of drought, the dam dries up.</p> <p>Although they have a micro-aqueduct, they only use this water for domestic tasks since it smells and tastes bad.</p> <p>The community does not have the capacity to store rice and this means that in times of high production they have to sell the rice for a very low price and in times of drought, they have to buy rice for three times the price that they sold it for.</p>
11/03/2016 Caimito- Sucre	United Caimito Association	<p>The women of this association showed their interest in participating in activities related to crop diversification and family homegardens, as in times of drought, access to food becomes difficult for them.</p>



DNP  
Departamento  
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ADAPTACIÓN I UNO

PROYECTO: REDUCCIÓN DEL RIESGO Y LA VULNERABILIDAD A LOS EFECTOS DEL CAMBIO CLIMÁTICO EN LA REGIÓN DE LA DEPRESIÓN MOMPOSINA EN COLOMBIA

Actividad

Asesoramiento  
Las Flores Noche

Lugar

Las Flores Noche

Fecha

31-10-13

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Número de identificación	Edad	Condición Étnica						Teléfono	Comunidad/Organización	Firma	
				Adulto Mayor		Adulto		Niños					Total
				F	M	F	M	F	M	F	M		
1	Sandra Patricia Maduro Camero	39276765	40									3146353946. Asmune	[Firma]
2	Eugeni Atencio de la Cruz	30199115	50	X								3126217175 Asmune	[Firma]
3	Elvia Maria Palencia	43889468	36									3125423196 Asmune	[Firma]
4	Gladi's Sereño	43888795	38									3107330282 Asmune	[Firma]
5	Yolima Ospino R.	43890631	33									3195844614 Asmune	[Firma]
6	Yenis Paola Sereño	1001546473	30									3136773152 Asmune	[Firma]
7	Rosmeri Ospino	21647366	52									3106918825 Asmune	[Firma]
8	Katherine Morales	1008482283	22									3143957723 Asmune	[Firma]
9	Adelaida Mejia	106489777	33									3126803112 Asmune	[Firma]
10	Viviana Ortiz	43890174	37									3106064384 Asmune	[Firma]
11	Digna Luz Romero	1038438053	27									3126048364 Asmune	[Firma]
12	Vicente Palencia J.	2373008	46									3113186118 Las Flores	[Firma]

Observaciones:



DNP

Departamento de Planeación y Desarrollo Urbano

ADAPTATION FUND



PIN UID

PROYECTO: REDUCCION DEL RIESGO Y LA VULNERABILIDAD A LOS EFECTOS DEL CAMBIO CLIMATICO EN LA REGION DE LA DEPRESION MOMPOSINA EN COLOMBIA

Actividad: Mejoramiento Línea Base - Consulta Propuesta G.C.F.  
Lugar: Los Florés - Nechí  
Fecha: 31-10-16.

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Número de Identificación	Edad	Mecha Mejor				Adipito				Condición Estatal				Teléfono	Comunidad/ Organización	Firma	
				F	M	F	M	F	M	F	M	F	M	F	M				F
1	Cecilia Hernandez	1038426185	32														312884569	Los Florés	Cecilia Hernandez
2	Raquelín Ospino	1001546625	28														3128835015	Asmune	Raquelín Ospino
3	Araceli UlloaCoba	43888588	39														3146270743	Asmune	Aracely Ulloa
4	Minna Morales	43889676	46														310389603	Asmune	
5	Jiliana Espejo	43891064	31														3128777736	Asmune	Liliana espejo
6	Maria de los Santos Urdibé	26309516	79														3217538815	Asmune	
7	Onaira Mejía	22236522	58														3107370282	Asmune	Onairavija
8	Flor Alba Jimenez	22236523	61														3113613094	Asmune	Flor Alba Jimenez
9	Yerlieth Villareal	7038423702	28														3216686542	Asmune	Yolibe Villareal
10	Beatriz Palencia	43699186	50														3122873181	Asmune	Beatriz Palencia
11																			
12																			

Observaciones:





DNP

ADAPTACION ZUMO

PROYECTO: REDUCCION DEL RIESGO Y LA VULNERABILIDAD A LOS EFECTOS DEL CAMBIO CLIMATICO EN LA REGION DE LA DEPRESION MOMPOSINA EN COLOMBIA

Actividad: Consulta Propuesta G.C.F - levantamiento lined base  
Lugar: Hacienda Las Pavas  
Fecha: 02-11-2016

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Numero de Identificación	Edad	Condicion Etaria						Total	Telefono	Comunidad/ Organización	Firma	
				Adulto Mayor		Adulto		Jovenes						Niños
				F	M	F	M	F	M	F	M			
1	Evangelino Loreo	64730013	67	X									3145487867 ASOPROPAV	Evangelino Loreo
2	Mabulis Gabelovino J.	64725781	36	X									ASOPROPAV	Mabulis Gabelovino
3	Alfredo Luis Navarro	101387323	23		X								ASOPROPAV	Alfredo Navarro
4	Diamantina Lopez	64725223	40	X									3145487867 ASOPROPAV	Diamantina Lopez
5	Amparo Lopez	4236543	38	X									3126401583 ASOPROPAV	Amparo Lopez
6	Milena Arrieta R	42366794	35	X									3136813281 ASOPROPAV	Milena A
7	Cepileta Bastonmas	64725480	40	X									3205435416 ASOPROPAV	Cepileta B.
8														
9														
10														
11														
12														

Observaciones:



DNP  
Departamento  
Nacional  
de Planeación

ADAPTIVIDAD

PROYECTO: REDUCCIÓN DEL RIESGO Y LA VULNERABILIDAD A LOS EFECTOS DEL CAMBIO CLIMÁTICO EN LA REGIÓN DE LA DEPRESIÓN HOMOPUSINA EN COLOMBIA

Actividad: Entrevista de Cuiya Boiss - Consulta Propuesta G.C.F.  
 Lugar: Cuiya - Gran Berto Alvar  
 Fecha: 03-11-16

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Número de Identificación	Edad	Condición Extra						Total	Comunidad/ Organización	Telefono	Firma	
				Adulto Mayor		Adulto		Niños						
				F	M	F	M	F	M	F	M			
1.	Hilda Elena Montesin	104956338	37									3135908964	Comitè	Hilda Elena M.C
2.	Carmen Juadís Corpas	23064282	60									3012823592	Cuiya	Carmen Corpas
3.	Ingrid Ricardo	64749737	33									314840998	Cuiya	Ingrid Ricardo
4.	Bety Solórzano	64749459	49									313384212	Cuiya	BETY
5.	Nury Rodríguez	34942475	48									3145928390	Cuiya	NURY R
6.	Lenis Suarez	100522574	20									3145928390	Cuiya	lenis suarez
7.	Idalides Suarez	23064346	39									3215273004	Cuiya	Idalides Suarez
8.	Celmira Escalante	23064326	50									313531687	Cuiya	Celmir ESCAL
9.	Belis Solórzano	64749459	49										Palo Alto	Belis Silva
10.	Denis Silva	64749463	37											
11.	Gladis Villegas	11044196225										32251014	Palo Alto	Gladis Villegas
12.	Doris Zabaleta	34951803	38										Cuiya	Doris Zabaleta

Observaciones:





Departamento Nacional de Planeación

ADAPTACIÓN URB



Proyecto de

PROYECTO: REDUCCION DEL RIESGO Y LA VULNERABILIDAD A LOS EFECTOS DEL CAMBIO CLIMATICO EN LA REGION DE LA DEPRESION INCOMPOSITA EN COLOMBIA

Actividad: Fortalecimiento de línea Base - Consulta Proposta G.C.F.  
Lugar: La Loma - San Jacinto del Cauca  
Fecha: 01-10-10

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Número de Identificación	Edad	Adulto				Niños				Total	Comité(s) / Organización	Teléfono	Firma
				M	F	M	F	M	F	M	F				
1	Magalís Severiche	110004142	40										Ja Joma	310 675 4261 310 675	Magalís Severiche
2	Carlos Vilcomá	6799000	55										Ja Joma	3126018544	Carlos Vilcomá
3	Manuel Amiéola		78										Ja Joma	3215541759	Manuel Amiéola
4	Manuel Oliviero	3807852	76										Ja Joma		Manuel Oliviero
5															
6															
7															
8															
9															
10															
11															
12															

Observaciones:



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Departamento Nacional de Planeación



ADAPTACION FUNDI

PROYECTO: REDUCCION DEL RIESGO Y LA VULNERABILIDAD A LOS EFECTOS DEL CAMBIO CLIMATICO EN LA REGION DE LA DEPRESION MOMPOSINA EN COLOMBIA

Actividad: Asentamiento Loma Base - Colsita Propuesta G.C.F.  
 Lugar: Casimiral (San Jacinto del Caño)  
 Fecha: 01-11-2016

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Número de identificación	Edad	Adulto Mayor				Condición Étnica				Teléfono	Comunidad/ Organización	Firma
				F	M	F	M	J	M	F	M			
1	Juanis Oliveros	7100012861	19									3137430408		Juanis Oliveros
2	Blanca Miranda Parayo	22001222	47									321519075		Blanca Miranda
3	Wilma Mejía Miranda	7032563368	25									3226489044		Wilma Mejía
4	Genoveva Pastana Aljía	22001217	44											Genoveva
5	Yolidis Mejía Miranda	7049563408	28									3214613779		Yolidis
6	Zamira Miranda	1049562408	31									2135360551		Zamira
7	Donsi Elena Torrio	64725167	38									3125643372		Donsi Elena I.
8	Lilibeth Pastrana	1049563408	32									3218617886		Lilibeth Pastrana
9	Zoraya Castro Mejía	7000946251	31									3215413298		Zoraya Castro
10	Valentina Gansón		28									3135448039		Valentina Gansón
11	Felisa Marios Aldana	7001561196	22									3216539316		Felisa Marios
12	Dora Rosa Castro	42366133	37									1053105216		Dora Rosa Castro

Observaciones:



ADAPTATION FUND



PROYECTO: REDUCCION DEL RIESGO Y LA VULNERABILIDAD A LOS EFECTOS DEL CAMBIO CLIMATICO EN LA REGION DE LA DEPRESION MOMPOSINA EN COLOMBIA

Avanzamiento de Línea Base - Consulta Propuesta S.C.F.  
Comitase - Noche  
27-10-16

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Número de Identificación	Edad	Adulto Mayor				Condición Etaria				Total	Comunidad/Organización	Teléfono	Firma	
				F	M	F	M	J	M	F	M					
1.	Betty Arroyo	1038438033	28											3217622780	Asamblea	Betty Arroyo
2.	Susana Mielez	1038437038	29											3215491726	Asamblea	Susana Mielez
3.	Enzo Romero Lora	1066516679	27											3124489921	Asamblea	ERICA ROMERO LORA
4.	Karem Mielez Alvarez	10015056625												3144689926	Asamblea	KAREN MIELEZ
5.	Nancy Corobina Troncoso	120154907	23											3234190042	Asamblea	Nedy Simernez
6.	Diana Conzajal	1038435765	31											3147880374	Asamblea	DIANA CONZAJAL
7.	Dlensyenda Troncoso	43889496	40											3207091962	Asamblea	Buenaventura
8.	Yovannis Mielez	43889876	34											3206607687	Asamblea	Yovannis Mielez
9.	Osmario Hoyos	1038439498	28											300829153	Asamblea	Osmario Hoyos
10.	Marceli Requino	1038437614	20											3116116741	Asamblea	MARCELI REQUINO
11.																
12.																

Observaciones:

Actividad: Consulta Propuesta G.C.F. - Levantamiento Línea Base  
 Lugar: Puerto Sardinero  
 Fecha: 02/11/2015

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Número de identificación	Edad	Condición Educativa						Total	Teléfono	Comunidad/ Organización	Firma	
				Adulto Mayor		Adulto		Jovenes						Niños
				F	M	F	M	F	M	F	M			
1	Nausdeth Jimenez	22.979.974.42		F									3716835180	Asomoproptipa Nausdeth Jimenez
2	Marinelly Siverachi	70.054.6125	27	F									3215269563	Asomoproptipa Marinelly S.
3	Yorani's Gardo	1101386940		F									3145938366	Asomoproptipa Yoranis Gardo
4	Sady Segovia	64226740		F									3136097083	" " Sady Segovia
5	Beth Luz Torres	110138676		F									3164383665	" " Beth Luz
6	Claudio Molina	1.10738083	26	F									3416661664	A " " Claudio Molina
7	Jenny Molina	32750812		F									3205380989	" " Jenny Molina
8	Santo Palencio	18.770.070		M									377340753	A " " Santo Palencio
9	Janelly Albarana	12.366.084		F									Janelly Albarana	Janelly Albarana
10	Juana Fomicio	64747160		F									347482020	A " " Juana Fomicio
11	Faciola Molina	22414296		F									3126679195	" " Faciola M.
12	Carmen Severiche	22.944777		F									3184104889	" " Carmen Hadero



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Departamento Nacional de Planeación



ADAPTACION FUND



Financiamiento Único

PROYECTO: REDUCCION DEL RIESGO Y LA VULNERABILIDAD A LOS EFECTOS DEL CAMBIO CLIMATICO EN LA REGION DE LA DEPRESION INCOMPOSITIVA EN COLOMBIA

Actividad: levantamiento Lima base - Consulta Propuesta G.C.F.  
Lugar: Ayapel - Tierralta  
Fecha: 22 / 2016

CONDICIONALES

N°	Nombres y Apellidos	Número de Identificación	Edad	Condición Etaria						Total	Comunidad/ Organización	Firma	
				Adulto Mayor		Jovenes		Niños					
				F	M	F	M	F	M				
1	Suzilda Díaz	260094038	38								314659532	Asoagripada	Suzilda Díaz
2	Rosa López	25819237	55								3128705106	Asoagripada	Rosa López
3	Jordi Carcamo	1066521984	23								3127990742	Tierralta	Jordi Carcamo
4	Milena López Alcan	1066515166	26								3105078152	Tierralta	Milena López
5	Fernny López	80496255	36								312875101	Tierralta	Fernny López
6	Jolib Gregorio López	2.784.186	74								3122932184	Asoagripada	Jolib Gregorio López
7	Arturo Miguel López	78112190	40								3207274988	Asoagripada	Arturo Miguel López
8	Eduwin José Sierra	1066513194	30								3218824873	Tierralta	Eduwin José Sierra
9	José David López	1066522444	23								3128705106	Tierralta	José López
10	Bertina López	25819171	69								3233429162	Asoagripada	Bertina López
11	Francisco Miguel NÚÑEZ	78113580	40								3144847589	Asoagripada	Francisco NÚÑEZ
12	Oscar López López	78114211	36								3148421155	Asoagripada	Oscar López

DNP/Planeación



Departamento Nacional de Planeación



ADAPTACION CLIMA



PROYECTO: REDUCCION DEL RIESGO Y LA VULNERABILIDAD A LOS EFECTOS DEL CAMBIO CLIMATICO EN LA REGION DE LA DEPRESION INCOMPOSITA EN COLOMBIA

Actividad Levantamiento línea base - Consulta Properta S.C.F

Lugar - Tierra Alta

Fecha - Noviembre / 02 / 2016

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Número de Identificación	Edad	Condición de Edad						Total	Comunidad/Organización	Teléfono	Firma
				Adulta Mujer		Adulto		Niños					
				F	M	F	M	F	M	F	M		
1.	Alvaro Sava H.	98674131	33										Asoagnipeda - Alvaro Sava
2.	José Miguel Alvar	78106534	56										Asoagnipeda - José M. Alvariz
3.	José Luis López	78114224	34										Asoagnipeda - José Luis López
4.	Anisis Alvar	106658103	26										Tierralta - Anisis Alvar
5.	Prisca Isabel Zabala	25809936	51										Asoagnipeda
6.	Rafael Francisco Alvar	6622837	62										Asoagnipeda
7.	William Torres	78105981	56										Asoagnipeda - William Torres
8.	Donasiano López	2784198	72										Asoagnipeda - Donasiano López
9.	Enriv Martínez N.	78111208	48										Asoagnipeda - Enriv Martínez
10.	Esthela López	28819234	60										Asoagnipeda - Esthela López
11.	Ramona Suarez	50875037	54										Asoagnipeda - RAMONA
12.	Francisco López	1646273	63										Asoagnipeda

Observaciones:



DNP  
Departamento  
Nacional  
de Planeación



ADAPTACIÓN+UNID



Proyecto

PROYECTO: REDUCCIÓN DEL RIESGO Y LA VULNERABILIDAD A LOS EFECTOS DEL CAMBIO CLIMÁTICO EN LA REGIÓN DE LA DEPRESIÓN HUMOSA EN COLOMBIA

Actividad: Desarrollo de

Lugar: Aldea Base - Conso Ha Propuesta G.C.F.

Fecha: Noviembre - 02 - 10

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Número de identificación	Edad	Adultos Mayores				Jóvenes				Niños		Total	Comunidad/ Organización	Teléfono	Firma
				F	M	F	M	F	M	F	M						
1	Hortencia Barros	25806497	55												Asignipeda	320580527	Hortencia Barros
2	Ana Victoria López	25819230	59												Asignipeda	326785772	Ana Victoria López
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	

Observaciones:



Dirección Nacional de Planeación

ADAPTACIÓN CLIMÁTICA

PROYECTO: REDUCCIÓN DEL RIESGO Y LA VULNERABILIDAD A LOS EFECTOS DEL CAMBIO CLIMÁTICO EN LA REGIÓN DE LA DEPRESIÓN MOMPOSINA EN COLOMBIA

Actividad: Representación Firma Base-Consulta Propeta S.C.F.  
Lugar: Buenavista  
Fecha: 23-11-16

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Número de identificación	Edad	Alta y Baja				Condición Física				Total	Teléfono	Comunidad/Organización	Firma
				F	M	F	M	F	M	F	M				
1.	Jaicenel Centeno	19790971	31										3266216642	ASOMUCOBB	Jaicenel C
2.	Gladiis Perales	22815633	36										3147225703	ASOMUCOBB	Gladiys Perales
3.	Guicelda Centeno	22777906	39										3138676883	ASOMUCOBB	Guicelda Centeno
4.	Nilson Gómez	9142823	47										320557725	" "	Nilson Gómez
5.	Argemiro Atencios	1046402310	24										-	Buenavista	Argemiro
6.	Posita Ruiz	104637668	27										321097884	ASOMUCOBB	Posita Ruiz
7.	Faiden de Hoyos	14740788	34										322671998	" "	Faiden de Hoyos
8.	Juifernando Ros	19790790	34										321667827	" "	Juifernando Ros
9.	Edilberto de Hoyos	3085646	60										" "	" "	Edilberto de Hoyos
10.	Berito Centeno	3802382	58										" "	" "	Berito Centeno
11.	Elkin Centeno	19790577	37										3145447873	" "	Elkin Centeno
12.	Angela Car Tatis	22796863	51										322616390	Buenavista	Angela Carvé

Distritación:



Departamento  
Nariño  
de Planeación

ADAPTACIÓN



Programa

PROYECTO: REDUCCIÓN DEL RIESGO Y LA VULNERABILIDAD A LOS EFECTOS DEL CAMBIO CLIMÁTICO EN LA REGIÓN DE LA DEPRESIÓN MOMPOSITANA EN COLOMBIA

Actividad: Levantamiento línea Base - Consulta Propuesta G.C.F.  
Lugar: Achi - Buenavista  
Fecha: 07-11-16

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Número de Identificación	Edad	Adulto Mayor				Condición Embar				Total	Teléfono	Comunidad/ Organización	Firma
				F	M	F	M	J	M	F	M				
1	Ricardo Melo	77090805	33										3147057412	Asamblea	Ricardo Melo
2	Norlenis de Hoyos	3757586	33										3215741786	Asamblea	Norlenis De Hoyos
3	Etilde Alvarez	22800202	54										3215075401 3215741786	1/1	Etilde M.
4	Norlenis De Hoyos	104639086	29										316833682	Asamblea	Norlenis De Hoyos
5															
6															
7															
8															
9															
10															
11															
12															

Observaciones:



DNP



ADAPTATION FUND



PROYECTO: REDUCCION DEL RIESGO Y LA VULNERABILIDAD A LOS EFECTOS DEL CAMBIO CLIMATICO EN LA REGION DE LA DEPRESION MOMPOSITA EN COLOMBIA

Actividad: Consulta Propuesta G.C.F. - levantamiento línea base  
Lugar: Totene - Camito  
Fecha: 03-11-2016

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Número de Identificación	Edad	Condición Etnia						Total	Comunidad/Organización	Telefono	Firma	
				Adulto		Jovenes		Niños						
				F	M	F	M	F	M	F	M			
1	ALBERTO ZUEGA MONTAÑAL	19706036	37									3205783765	ASOCIACION PENA	
2	NANCY'S TAVAR	22832604	32									3116625845	ASOCIACION PENA	
3	JOSE LUIS RIVERA	11041664	36									3216488814	ASOCIACION PENA	
4	OLIVIA MONTAÑAL	2286473	52									3216489984	ASOCIACION PENA	
5	ARMANDO MATEO ROMERO	1104109655	29									313761267	ASOCIACION PENA	
6	NANCY FLOREZ B	22836673	46									3215384338	ASOCIACION PENA	
7	OLIVIA GONZALEZ	22837073										3136043525	ASOCIACION PENA	
8	MARIA FLOREZ	22836675	50										ASOCIACION PENA	
9	RAFAEL TOBIAS	11040836										3135005125	ASOCIACION PENA	
10	JUAN BATISTA	382306										N/A		
11	MANUEL MONTAÑAL	3823974										3116998435		
12	OLIVERA VALENCIA	25911035										3116628980	ASOCIACION PENA	

Observaciones:



Departamento Nacional de Planeación

ADAPTATION FUND



UNEP

PROYECTO: REDUCCIÓN DEL RIESGO Y LA VULNERABILIDAD A LOS EFECTOS DEL CAMBIO CLIMÁTICO EN LA REGIÓN DE LA DEPRESIÓN MOMPOSINA EN COLOMBIA

Actividad: Consulta Propuesta G.C.F - levantamiento línea base  
Lugar: Tofeme - Cajimito  
Fecha: 03 - NOV - 2016

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Número de identificación	Edad	Condición Etaria						Teléfono	Comunidad/ Organización	Finca			
				Adulto Mayor		Adulto		Jovenes					Niños		Total
				F	M	F	M	F	M	F	M	F	M		
1	Carmen morales	72836364												3117471871	ASOCIACION DE MUJERES
2	Olimpo Perez	1100247082												3105024106	ASOCIACION DE MUJERES
3	José Martiel Corpus	7700249356												3122913150	ASOCIACION DE MUJERES
4															
5															
6															
7															
8															
9															
10															
11															
12															

Observaciones:



DNP

Departamento Nacional de Planeación

ADAPTACIÓN FUND



Programa de las Naciones Unidas para el Desarrollo

PROYECTO: REDUCCIÓN DEL RIESGO Y LA VULNERABILIDAD A LOS EFECTOS DEL CAMBIO CLIMÁTICO EN LA REGIÓN DE LA DEPRESIÓN MOMPOSINA EN COLOMBIA

Actividad: Pensamiento crítico - Hoja de trabajo - Mirospinos S.C.F.  
Lugar: Miraflores  
Fecha: 01/11/2016

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Número de identificación	Edad	Condición Familiar						Total	Comunidad/ Organización	Telefono	Firma	
				Adulto Mayor		Adulto		Jóvenes						Niños
				F	M	F	M	F	M	F	M			
1	Evelina Pizar Ortega	64726444	33	-								31266627677	Asompromir	Silvana TORO
2	Miladis Mercado	34943803	49	✓								3135505436	Asompromir y Miladis Mercado	
3	Nerys castillo A	6472639	36	✓								313514316	Asompromir	Nerys castillo
4	Maria Rodriguez	110258168	25	✓								221966046	Asompromir y Maria Rodriguez	
5	Audy Castro	22978751	50	✓								3215352906	Asompromir	Audy Castro
6	Yeranis Barcha	64795	78	✓								320533630	Asompromir	Yeranis Barcha
7	Yadi Aguirre	3494954		✓								3146959778	Asompromir y Yadi Aguirre	
8	Sandy Ballewiro Aguirre	100677142	25	✓								3135329910	Asompromir	Sandy Ballewiro
9	Yasnay Victoria Aguirre	110441851	26	✓								3206139070	Asompromir	Yasnay Victoria
10	Damaris Perez	64725177		✓								3148828247	Asompromir	Damaris Perez
11	Maria cotera	64225186		✓								3145193209	Asompromir	Maria cotera
12	Miria Redelo	22978677		✓								313613944	Asompromir	Miria Redelo

Observaciones:



DNP

ADAPTACION FIRMO

PROYECTO: REDUCCION DEL RIESGO Y LA VULNERABILIDAD A LOS EFECTOS DEL CAMBIO CLIMATICO EN LA REGION DE LA DEPRESION MORFOSICA EN COLOMBIA

Actividad: Consejo de Asesores CCF - levantamiento línea Base  
Lugar: Cañalero  
Fecha: 07/11/2013

DATOS DE LOS ASISTENTES

Nº	Nombre y Apellido	Número de Identificación	Edad	Condición Laboral						Total	Teléfono	Comunidad/Organización	Firma	
				Adulto Mayor		Jovenes		Niños						
				F	M	F	M	F	M	F	M			
1	Sirley Colón Araya	64725602		X								3115000282	Asomunpromir	Sirley Colón
2	Cecilia Legula	64725661		X								3205468209	Asomunpromir	Cecilia Legula
3	Julis Aguas Herrera	34949572		X								3216741765	Asomunpromir	Julis Aguas H
4	Luis Barcha	7728429370		X								3146255151	Asomunpromir	Luis Barcha
5	Yelis Barcha	264726079		X								3216755972	Asomunpromir	Yelis Barcha
6	Liria Montiel Vega	34943756		X								3135267699	Asomunpromir	Liria Montiel
7	Maricela	712298757160		X								320713	Asomunpromir	Maricela
8	María Ortega	422513		X								3114	Asomunpromir	María Ortega
9														
10														
11														
12														

Observaciones:



## **Annex VI (b) – Environmental and Social Management Framework**

Green Climate Fund Funding Proposal

### **ANNEXURE TWO: INDIGENOUS PEOPLES PLANNING FRAMEWORK**

### **Indigenous Peoples Report**

## **Planning framework for indigenous peoples regarding the project “Integrated management of water resources as a climate change adaptation strategy for the most vulnerable communities in La Mojana”**

### **1. Introduction**

The planning framework for the indigenous communities has been prepared to support the project “Integrated management of water resources as a climate change adaptation strategy for the most vulnerable communities in La Mojana” and incorporates a guide for its formulation and execution. It aims to ensure the effective participation of the Zenú indigenous people. The main objectives of the planning framework for indigenous peoples are to incorporate the differential approach in the design and implementation of the project, ensuring the active participation of the Zenú indigenous people.

The planning framework for indigenous peoples gives a brief background to the project and contains a general description of Colombia’s indigenous population, particularly the characteristics and specific location of the Zenú people. It gives a summary of the project’s objectives and content, and its impact on the Zenú community, describing the way that the participation and prior consultation process was carried out. Additionally, it gives recommendations to ensure that the project be implemented in a culturally appropriate way, allowing the Zenú people to receive social, economic and environmental benefits, and recommends mechanisms for the monitoring of the project’s activities as well as measures to mitigate potential adverse or undesired effects. It also presents an institutional arrangement for the project’s selection, planning and execution, and outlines the process for following up and assessing the plan’s review and execution.

Similarly, details are given regarding the mechanisms that will be employed to ensure the participation of the Zenú communities, with consideration and recognition given to their own organizational systems, and taking into account their livelihoods, cultural processes, and the recommendations proposed in the consultation process.

### **2. Presence of Indigenous Peoples / Ethnic Minorities in the Project Area**

#### **2.1 Indigenous peoples of Colombia**

In Colombia, 87 indigenous peoples groups<sup>1</sup> have been officially recognized, with an estimated population of 1,392,623 – equivalent to 3.43% of the country’s total population (DANE, 2015, p37). These peoples are distributed all over the national territory and show great diversity, both demographically and culturally speaking. Three of these groups, (Wayuu, Paez and Emberá) each number over 50,000, while thirty of them have fewer than 500 members. Among the indigenous peoples are farmers, pickers and fishermen; indigenous peasant communities; small nomadic groups; and a growing urban indigenous population (United Nations, 1994)<sup>2</sup>.

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<sup>1</sup> [\[1\]](#) According to data given by the National Indigenous Organization of Colombia (ONIC), there are 102 indigenous peoples in the country. (KAS, 2009, p6).

<sup>2</sup> Cited by Universidad Externado de Colombia, Investigare Magazine – The right to self-determination of the indigenous peoples: a way to strengthen democratic governance in Colombia.

Most of the indigenous population lives in the rural part of the country: in legally established indigenous reservations, in indigenous factions, or in territories that have not been legally delimited. Currently, there are 788 certified reservations, occupying an area of 31 million hectares – 29.8% of Colombian territory – in 27 departments and 228 municipalities<sup>3</sup>.

The departments with the highest numbers of reservations are Chocó, with 115; Cauca, with 83; Tolima, with 66; Nariño, with 60; and Putumayo, with 55 (DANE, 2015, pp. 22-23). Those with the biggest indigenous populations are La Guajira, with 278,212 inhabitants; Cauca, with 248,532 inhabitants; Nariño, with 155,199 inhabitants; Córdoba, with 151,064 inhabitants; and Sucre with 82,934 inhabitants. Indigenous people make up the highest percentages of the population in Vaupés (66.65%), Guainía (64.90%), La Guajira (44.94%), Vichada (44.35%) and Amazonas (43.43%) (DANE, 2015, pp. 38-39). The Zenú represent 16.7% of Colombia's indigenous population.

DANE's figures show that 63% of the indigenous population live below the poverty line and 47.6% lack the income to buy a basic food basket meeting minimum daily nutritional requirements. 34.53% do not have access to health services. The illiteracy rate among the 15-49 age group is 24.1%, six times higher than that of the national population, and only 50% of those aged between 5 and 25 attend an educational institution. Furthermore, 3 out of 5 indigenous people do not have access to a water supply, 4 out of 5 lack access to a sewer system and 2 out of every 5 do not have access to electricity. The indigenous population has water supply coverage 4 times lower than that of the national population, their sewerage coverage is 3.2 times lower, and when it comes to electricity, their coverage is 9.3 times lower (KAS, 2009, p7).

As a general situation Colombia's indigenous population has been affected by the armed conflict and has suffered forced displacement as a result of threats and massacres, anti-personnel mines in their territory and forced recruitment of minors and children. They are also afflicted by the occupation of sacred places, confinement, restrictions on movement of persons and goods, behavioural control, forced prostitution, violence, harassment and sexual abuse. In the last 10 years, there has been a clear increase in violence related to the armed conflict. In the period between 1998 and 2008, the National Indigenous Organization of Colombia (ONIC) reported the murder of 1,980 indigenous people. Indigenous communities are particularly vulnerable as a result of occupying collective territories that are rich in natural resources (biofuels, petroleum and wood), located near borders, or suitable for coca cultivation. For this reason, the United Nations and the Colombian government have joined forces in protecting the country's indigenous peoples and the Constitutional Court has decreed a special protection measure for them<sup>4</sup>.

## **2.2. Ethnic Minorities in the project area: the Zenú people**

In pre-Hispanic times, the Zenú people inhabited the wide savannahs between the middle and lower courses of the rivers known today as Sinú, San Jorge and Cauca, in what are now the departments of Córdoba, Sucre and Bolívar. The Zenú lived in 103 settlements distributed around the provinces of Fincenú, Pancenú and Zenufana.

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<sup>3</sup> Ministry of Culture, Office of Indigenous, Minority and Romani Affairs. Report prepared for the visit of Forum members, p5 (2010).

<sup>4</sup> UNHCR. United Nations High Commissioner for Refugees. Situation Colombia: Indigenous 2012.

Archaeological studies performed on the low courses of the Sinú and San Jorge Rivers (Plazas and Falchetti, 1990) show that the Zenú controlled the areas containing lakes and rivers. It is very likely that they developed, through an experimental process, a large-scale technological water-management system. It has been calculated that the areas covered by this water-management system in the low courses of the San Jorge and Sinú rivers were 500,000 and 150,000 hectares respectively and it was operational for 2,000 years.

Likely a result of a period of intense drought between the years 1200 and 1300 and factors of a socio-economic nature, such as the growing demands of an expanding population, there was a gradual movement away from the region of the lower San Jorge; by the time of the Spanish Conquest, the descendants of this culture only remained in the high, flood-protected regions such as Ayapel, located in the middle course of the San Jorge River, and Betancí, in the middle course of the Sinú River. Everything appears to indicate that when the Spanish arrived, this system was no longer operational. There is no mention of it in the Conquistadors' chronicles; by then the economy was weaker and the subsistence of the Zenú communities depended on trade and the production of food, fabrics and gold artefacts.

During both the colonial and the republican periods, the Zenú population shrank dramatically due to the system of *encomienda*. "In the 15<sup>th</sup> century, contact with the Hispanics and other non-indigenous populations produced considerable changes in Zenú culture, such as the loss of their traditional organizational systems, which were dismantled upon the implementation of institutions like *encomienda*. In the same vein, urban centers emerged at the beginning of the 18<sup>th</sup> century in areas which had belonged to the ancestors of the Zenú people. Additionally, in the 19<sup>th</sup> century, religious orders took stronger actions against indigenous traditions and customs. At the same time, this phenomenon accelerated the establishment of cattle ranches and the continued profit-driven exploitation of natural resources.<sup>5</sup>

Currently, the descendants of the Zenú people mainly inhabit the indigenous reservations in San Andrés de Sotavento in Córdoba Department, and El Volao in Urabá. They also live in several small settlements in Sucre, Antioquia, and Chocó. They are most numerous in Córdoba Department – especially the San Andrés de Sotavento reservation – in the municipal capital of Tolú Viejo and 19 smaller indigenous councils scattered across Sucre and Córdoba Departments. This dispersion is a result of the loss of lands caused by the expansion and consolidation of the cattle-farming industry and the pressure of the armed conflict.

The latest census, carried out in Colombia by DANE in 2005, reported 233,052 self-identifying members of the Zenú people, of whom 51.6% (120,181) are male and 48.4% (112,871) are female. The majority of the Zenú people, 61.6% of the population (143,457 people) are in Córdoba Department, followed by Sucre with 34.7% (80,830) and Antioquia with 2.8% (6,594). 99.1% of the Zenú live in these three departments (see Table 1). Map 1 shows the departments and municipalities with the biggest Zenú populations.

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<sup>5</sup> Ministry of Culture. Independence Bicentenary, 1810 -2010.

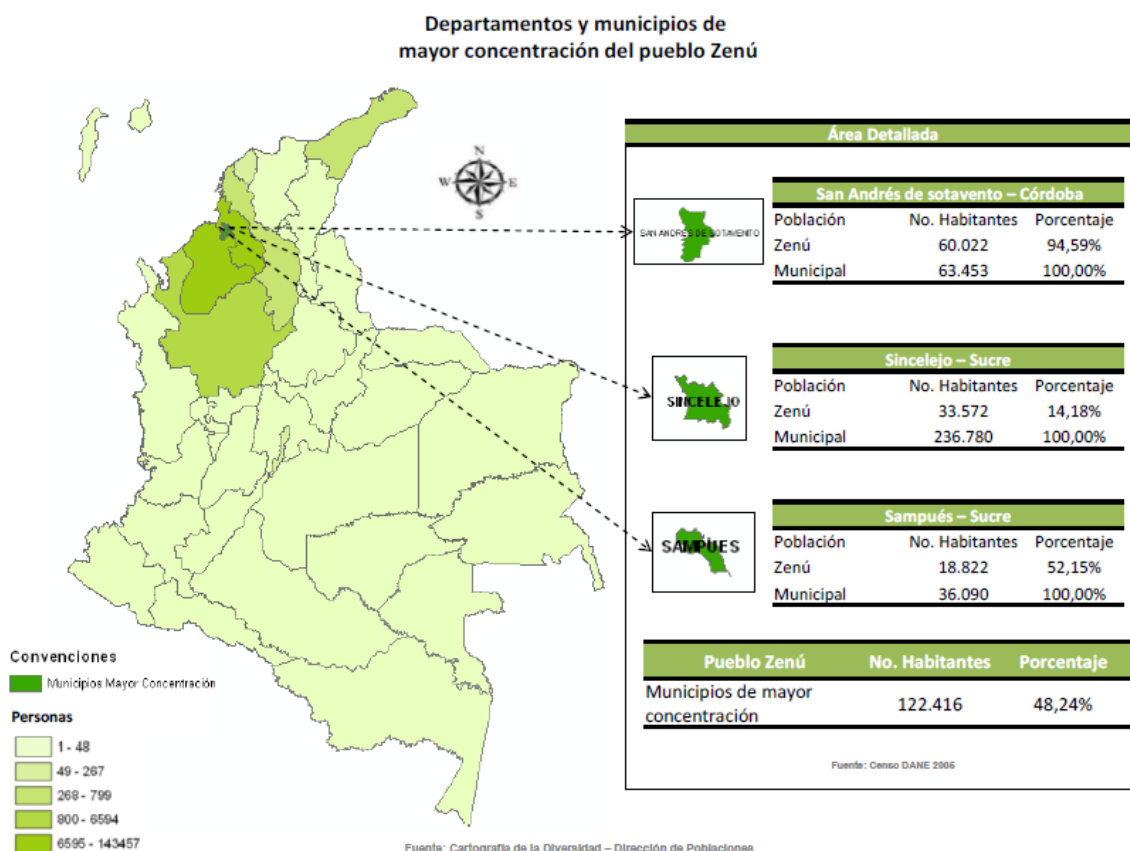
**Table 1: Distribution of Zenú people.**

Zenú population: 233,052 people			
Settlement patterns		No. of inhabitants	% of total Zenú population
Departments with highest concentrations	Cordoba	143,457	61.60%
	Sucre	80,830	34.70%
	Antioquia	6,594	2.80%
	Total	230,881	99.10%
Zenú population in urban areas		79,402	34.10%

Figures from DANE 2005 census

34.1% (79,402) of the Zenú people live in urban areas, a higher proportion than the national average of 21.43% (298,499 people). According to the census, 25.8% of the Zenú population, comprising 60,118 people, do not know how to read or write; 50.8%, are male and 49.2% are women.

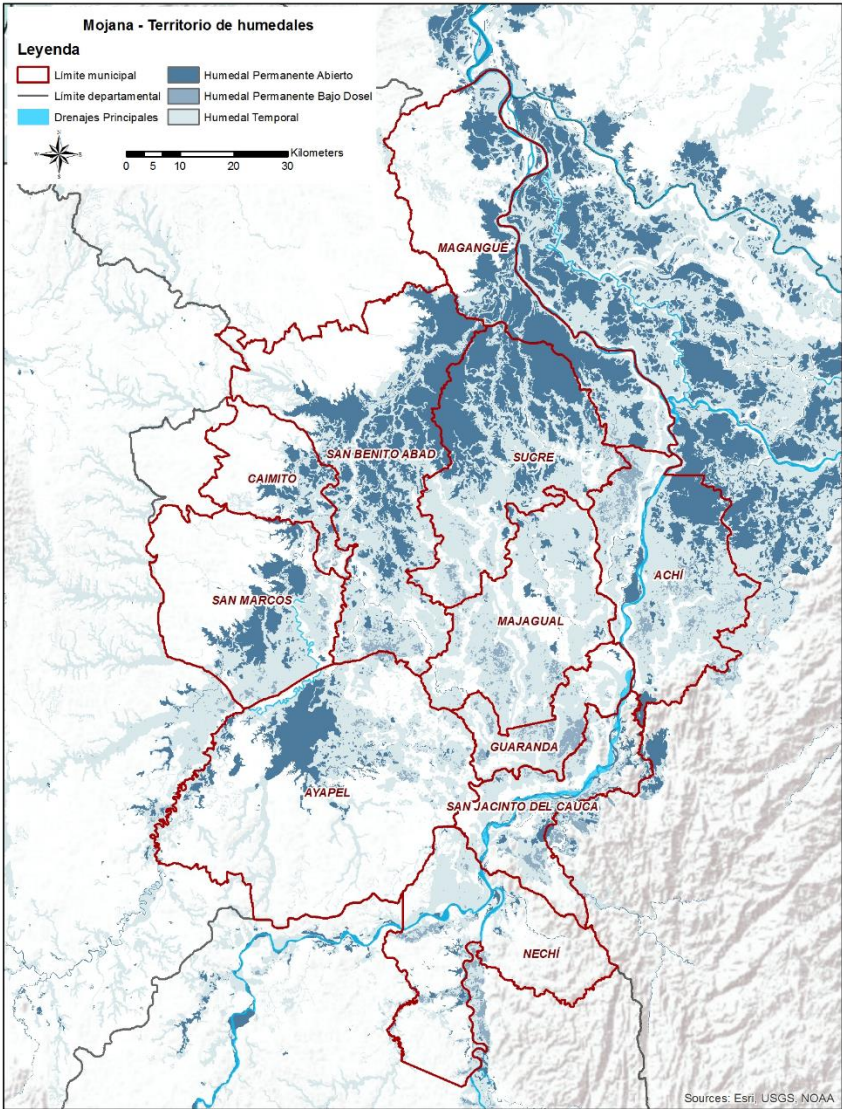
**Map 1. Departments and municipalities with the biggest Zenú populations.**



This is the translation of the previous graph:

Departments and municipalities with the highest concentrations of Zenú people.  
 Area detailed  
 Population.....No. inhabitants....Percentage  
 Zenú People... No. inhabitants....Percentage  
 Municipalities with the highest concentrations.  
 Source: DANE 2005 census  
 Conventions  
 Municipalities with highest concentrations.  
 People  
 Source: Mapping Cultural Diversity – Population Office

The project spans 11 municipalities that make up the La Mojana region: Magangué, San Benito Abad, Sucre, Caimito, San Marcos, Majagual, Achí, Guarandá, San Jacinto del Cauca, Ayapel and Nechí, as shown on the map below:



In the project area, the indigenous Zenú population is currently found in the region of La Mojana, mainly scattered around rural areas. They have no reservations that are recognized as such by the national government, but they self-identify as indigenous people and practice their traditions and customs within the territories they currently occupy. They have the same rights as the rural population. There is no differential policy applied by government institutions and they do not receive specific funds for transfers from the national budget. Table 2, below, shows the distribution of the population by municipality, *vereda* (regions of a municipality) and gender.

**Table 2. Indigenous population by municipality in the project area**

Municipality	Town where they are located	Name of indigenous council	Number of members	Women	Mens
San Benito Abad	Rural <i>veredas</i> in the municipality	Lomas de Palito	105 families (389 people)	203	186
	(Sispataca, El Limón, Villanueva y La Ceiba) Rural <i>veredas</i> in the municipality	Takasuan	383 families (1570 people)	743	827
	<i>Vereda</i> de J(egua	Jeguita	369 families (1367 people)	118	251
	(Zona Rabón, Lomas de San Juan, Guayabal, Cuiva, El cauchal, Las Chispas, Las Delicias) Rural <i>veredas</i> in the municipality	Caño Viejo - Cuiva	20 families (100 people)	NS	NS
San Marcos	<i>Vereda</i> Cayo de la Cruz	Cayo de la Cruz	35 families (140 people)	87	53
	<i>Vereda</i> el Pital	El Pital	64 families (320 peoples)	120	300

Source: Project's own information, from the field. UNDP 2016.

Nowadays, the indigenous Zenú people follow a diet based mainly on carbohydrates and vitamins. The consumption of maize, plantain, yams, squash, cassava, sweet potato, and banana is common, but they also eat fish, beef, pork and chicken. Finally, they typically consume dairy products such as whey, cheese and butter.

The culture of the Zenú people is basically associated with the influence of the majority culture and working conditions, which have changed over time. Nowadays, the indigenous people speak Spanish and have adopted the housing, music and clothing of the mestizo culture. They have, however, conserved Zenú handicrafts as a relevant aspect and as symbols of their ethnicity, the *vueltiao* hat, baskets and accessories made from reeds, banana leaves, enea and junco (see Table 4). "Regarding gender roles, the Zenú men basically pursue fishing, hunting, farming and making handicrafts. Fishing and hunting is carried out in an old-fashioned way, making use of nearby rivers

and woods within their territory. They have participated in informal work, mainly on ranches near their traditional lands.”<sup>6</sup> Women are engaged in domestic and family care activities.

The Zenú in the project influence area have managed to maintain their organizational hierarchy through the lesser councils (*cabildo menor*) composed by 10 people elected in assemblies held every 2 years. These lesser councils are represented by captain, who is the highest authority in the territory and has a group of indigenous sheriffs at his disposal. These sheriffs act as public authorities and have the power to run and solve problems relating to economic and legal matters. They also still have extensive, strongly bonded families.

### **3. Legislation on indigenous peoples (summary)**

Historically, indigenous peoples have made decisions and applied internal rules in accordance with their ancestral history or their own laws, which are recognized by the State via indigenous legislation (Decree 1088/93, which regulates the nature, objective and applicability of the regulations that govern the functioning of the indigenous councils and territories; Decree 2164/95, which partially regulates Chapter XIV of Law 160 of 1994, relating to the endowment of lands (and their titling) to indigenous communities, for the constitution, restructuring, expansion and sanitation of indigenous reservations in the national territory; and Decree 1397/96, which called for the creation of the National Commission of Indigenous Territories and the Permanent Bureau for Coordination with indigenous peoples and organizations, as well as other rulings).

Various indigenous cultures have created their own institutions and organizational systems, which have allowed them to keep order in their territory and among the members of their community. Traditional indigenous authorities, councils and council associations benefit from a status recognizing them as public authorities of a special nature.

In the 1990s, the Colombian state was able to pass legislation and regulations, and signed enforceable international treaties to guarantee and demonstrate its commitment to promote and protect the country's ethnic and cultural diversity. The 1991 Constitution, currently in force, recognizes important rights of indigenous peoples, among which are the recognition of ethnic and cultural diversity (Article 7), the official recognition of languages and dialects in territories housing ethnic groups, as well as bilingual education in the communities with their own traditional languages (Article 10). Ethnic groups have the right to training that respects and develops their cultural identity (Article 68), there are also special rights for ethnic settlements in territories of archaeological wealth (Article 72), political participation of indigenous representatives in the Senate (Article 96), the ability of the authorities to exercise judicial functions within their territory (Article 246), the recognition of indigenous areas as territorial entities (Article 286), the autonomy of territorial entities (Article 287), the participation of the indigenous community representatives in conforming territorial entities, as well as the establishment of collective ownership and the inalienability of the indigenous reservations (Article 329). The Constitution also orders the exploitation of natural resources in indigenous territories to be carried out without detriment to the cultural, social and economic identity of the indigenous communities; in the same way, the indigenous reservations are established as beneficiaries of the resources distributed from the general national budget (Article 356).

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<sup>6</sup> Ministry of Culture. Independence Bicentenary, 1810 -2010.

In 1991, by means of Law 21 of 1991, Colombia ratified Convention 169 of the International Labor Organization (ILO), pertaining to indigenous and tribal peoples in independent countries, and forming part of the Colombian constitution, obliging the national government to assume responsibility for the development, with the participation of the indigenous peoples, of coordinated and systematic action to protect the rights of these peoples and guarantee respect for their integrity; these acts must include measures ensuring that members of the peoples benefit on an equal footing from the rights and opportunities which national legislation grants to other members of the population; promoting the full realization of the social, economic, cultural and territorial rights of these peoples with respect for their social and cultural identity, their customs and traditions, and their institutions.

The Colombian government, in applying the provisions established in Convention 169, must recognize and protect the social and cultural values and practices of the indigenous peoples, and take due account of the nature of the problems which face them collectively; respect the integrity of the indigenous peoples' values, practices and institutions; and adopt, respecting the auto determination of the indigenous peoples and with the participation and cooperation of the ethnic peoples, measures aimed at mitigating the difficulties experienced by said peoples as they face new living conditions.

On April 20th 2009, the government expressed its support for the United Nations Declaration on the Rights of Indigenous Peoples. The constitutional and regulatory advance for the indigenous peoples has allowed for the establishment of a dialog platform and has had an impact on public policies that has contributed to the reassessment of institutional planning and management.

The Constitutional Court<sup>7</sup> has ratified, in various rulings, the right of the indigenous peoples to their cultural, social and economic integrity as fundamental, due to its relationship with their survival. The Court declared that, in accordance with Article 330 of the Constitution, this survival will be protected by means of the participation of the indigenous communities in decisions related to the extraction and management of natural resources in their territories. Regulations related to the right to participation are found in Article 40 of the Constitution<sup>8</sup>.

The Court considered that in the case of the indigenous peoples, the right to participate, by means of the prior consultation mechanism, was a fundamental right due to its importance to the protection of their cultural, social and economic identity. The three elements that must be taken into account in order to carry out a valid prior consultation procedure are:

1. The community must be kept fully informed of projects designed to explore or exploit natural resources in territories that they occupy or that belong to them, and of the mechanisms, procedures and activities required to execute them.
2. In the same way, the community must be kept informed and educated about the way that the execution of the afore-mentioned projects can lead to an effect or reduction of the elements that form the basis of social, cultural, economic and political cohesion and, therefore, the essence for its survival as a group of humans with unique characteristics.

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<sup>7</sup> Legal framework for rights of indigenous peoples in Colombia. ONIC –HREV, 2008.

<sup>8</sup> In Colombia although it was ratified the convention 169, it is still pending the regulation within the national legislation of the “free, prior and inform consent”.

3. The community must be given the opportunity to consciously value, freely and without outside interference, by means of the convening of its members and representatives, the advantages and disadvantages of the project for the community and its members. Any concerns and aspirations the community presents in relation to the defense of its interests, and comments on the project's viability, must also be listened to. This aims to ensure that the community participates actively and effectively in decision-making processes adopted by the relevant authority, which must, as far as possible, be agreed upon.

#### **4. Outline of management plan for indigenous peoples**

The Colombian government prioritized the formulation of the project "Integrated management of water resources as a climate change adaptation strategy for the most vulnerable communities in La Mojana", which proposes to implement an adaptive management of water resources in the La Mojana region, given that the area is one of the poorest, most war-torn, and vulnerable to the risk of drought and the Colombian dry season. The project resolves to increase the resilience of 11 municipalities in La Mojana by means of an integrated management of domestic and agricultural usage of water, ensuring an improvement in water quality and the re-establishment of its natural flow in the region to absorb the impacts caused by extreme events; additionally, action will be taken to allow a restoration of the functioning of ecosystems, better flood and drought impact management, and a reduction in vulnerability of local communities.

The project expands upon two existing adaptation operations supported by the National Adaptation Fund and international financing. The financing from GCF, together with co-financing from GF, will be used to lower technical, financial and institutional barriers and implement three strategic operations to allow the La Mojana region to face the impacts and new conditions generated by a changing climate.

The project will directly benefit 105,350 people, and another 332,650 indirectly, by means of the supply and climate-change-resistant water usage, water-resistant and efficient farming practices that are adapted to climate conditions, timely and adapted climate information and improved water management and climate management capacities. Approximately 2,500 of the project's beneficiaries belong to the Zenú people.

##### **4.1 Project description**

The project's objective is to "Increase the resilience of vulnerable communities in the La Mojana region to climate variability and risks by means of the integrated management of water resources". Its four outputs are:

Output 1: Strengthened understanding of the impact of climate change on water management

Output 2: Climate change adapted water infrastructure and ecosystem services.

Output 3: A climate change adapted early warning system.

Output 4: Resilient agro-ecosystems to improve livelihoods in the communities.

For Output 1, studies of subterranean water and water quality are planned, as well as basic studies to design an early warning system (concerning floods, drought, and health and agro-ecosystems), research on best practices for adapted ecosystems (management of climate-stress-tolerant seeds,

crop rotation and adapted cattle farming) and create a bank of information on adaptive management of water resources. These studies will be able to help direct policy and local and regional government planning in risk management and the agricultural sector's adaptation to climate change, protection of infrastructure, disease control and prevention, and health risk factors related to extreme events.

Output 2 will address both the establishment of adaptive infrastructure for rainwater management and ecosystems restoration. Regarding infrastructure, it is proposed that rainwater-harvesting systems be set up for 8,000 vulnerable families, and that 45 climate change adapted rural micro-aqueducts and long-term water supply solutions for 36,560 families both be improved.

When it comes to resilient ecosystems, the project will promote livelihoods compatible with the conservation of the existing ecosystems in the La Mojana region, with participation from the communities; sponsor the empowerment of 1,000 women in restoration and monitoring; and support the establishment and application of a voluntary code of sustainable cattle-farming practices with 8,000 workers. Likewise, action will be taken to recover 127km of streams and restore 2,000 hectares of wetlands.

Regarding Output 3, an early warning system will be installed that will manage climate information, and be timely and accessible for local communities and municipal administrations. The regional hydro-meteorological network will be strengthened with 15 new automated hydro-meteorological stations and 3 new agro-meteorological stations. This information will be processed in real time and will enable early warnings to be transmitted in the case of extreme events, allowing public goods and assets to be protected, the health system to be alerted, and similarly, agro-meteorological bulletins to be broadcast that will provide timely information to the farm workers for decision-making in the face of extreme events and climate change.

With Output 4, resilient agro-ecosystems will be established to improve the livelihoods of 8,000 families, and similarly, a rural project will be put into practice, targeting adaptation and climate-resilient production through a strategy to train community leaders to be trainers themselves.

#### **4.2 Evaluation of the social impacts of the project**

At the moment, in the influence of the project area, the Zenú people do not have any territories or reservoirs recognized by the government, and they live in 9 small settlements, where there are clusters of between 20 and 513 families. Given their dispersed distribution in small rural population centers, they are marginalized from state projects which have been directed mainly at urban centers, and this lack of state presence has made its settlements more fragile when in the presence of armed actors, a situation that was very serious during the years 2003-2008, and still occurs today, albeit with less intensity. This situation has led to the migration of the population, especially young people, to the urban centers of the region, where they are in conditions of high social and economic vulnerability.

At present, the settlements of the Zenú people in the project area, lacking in potable water, have been affected by the recent droughts associated with the El Niño phenomenon and heavy floods during the La Niña phenomenon. This situation has affected not only the health of the community, their livelihoods and the production of food which guarantees their food security and sovereignty,

but also the loss of fish in the swamps, which is one of the main sources of protein and storable food.

As a result of the awareness-raising and feedback meetings, the communities identified the potential impacts of the project, the relationship with the cultural characteristics of the Zenú people, their demand to strengthen their capacities, and the impact on natural resources. These results are presented in Table 3.

As a result of the consultations with the Zenú communities in the project area, we collected their recommendations, which are summarized in Table 4. Subsequently, and as part of the contributions of the High Regional Council of the Zenú People, Mr. Dario Mejía, the recommendations that were made through his delegate were included in order to accurately incorporate the differential approach and so that the project's actions successfully generate a positive impact in the strengthening of capacities and reinforce the values, traditions, habits and customs of the Zenú people, all of which contribute to the adaptation and survival of their culture. Thanks to this process, the project received a letter of support from the Principal Council of the Indigenous Peoples in Colombia, Mr. Luis Fernando Arias, as a representative of the Nacional Indigenous Peoples in Colombia (ONIC) Annex (XIII (h)).

**Table N° 3. Results of the community negotiation points with the communities of the Zenú people that have settlements in the project area**

<b>Community</b>	<b>Impacts identified</b>	<b>Relationship of the Project with the cultural characteristics of the Zenú people</b>	<b>Demand for capacity strengthening</b>	<b>Impact of the Project on their natural resources</b>
<b>Pital</b>	They have been affected by climate variability events (excessive rain and droughts); the greatest impact has been on crops and animals.	The community considers itself to be the observer and protector of the region's natural resources.	Training and support for the establishment of staple crops. Handling and processing of fibers and handicrafts.	They consider that their natural resources will be positively impacted by the project.
<b>Montegrande</b>	They consider that the project mitigates the impacts that climate variability is having on the region.	The community considers that the project is compatible with their cultural conditions. They highlight the importance of working with native species, which is a demand of the community.	They request training in the environment and in water management. Education for the peasant population. They highlight the fundamental role of women in the process.	Recuperation of streams, water sources, flora, fauna and soil.
<b>Santo Domingo Vidal</b>	They consider that the project meets the needs of the population in terms of the impacts of climate variability.	The project is compatible with their productive practices and the recuperation of the swamps that have been affected.	Good agricultural practices, recovery of seeds and handicrafts. Promotion of traditional cultural practices while also conserving ecosystems.	The most important natural resource in the region is water, and this is positively impacted by the project.

<p><b>Jeguita – Takasuan</b></p>	<p>They believe it is essential to improve the community's water supply system, as the quality of the water is poor and it is affected by both excessive rain and drought.</p>	<p>The community confirms that the proposal is compatible with its cultural characteristics, since it does not seek to alter or violate the dynamics of its ethnic roots. They consider that the design of the proposal is consistent with their needs.</p>	<p>Empowerment of women through training projects on agro-ecological and artisanal topics. Support to small farmers and cattle farmers. Community training on organizational issues for adaptation. NOTE: Although the construction of roads was requested, it was explained that this type of infrastructure cannot be built by this project.</p>	<p>The councils present clarify that they depend mainly on the swamp, rivers and streams. They consider it important that the project enable the recuperation of some of these that have been lost by the extreme climatic conditions; they also indicate that they depend on crops such as maize, cucumber, cassava, rice and watermelon.</p>
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**Table N° 4. Summary of the issues discussed, and the recommendations and conclusions of the indigenous councils in the project area**

Indigenous Councils Consulted	Main issues discussed and recommendations/conclusions made
<p>Takasuan Council (from Sispataca, El Limón, Villanueva and La Ceiba <i>veredas</i>)</p> <p>Jeguita Council (from Jegua <i>vereda</i>).</p> <p>Location of the consultation meeting: San Benito Abad-</p> <p>Date: 11/19/2016</p>	<p>The proposal to develop the project "Integrated management of water resources as a climate change adaptation strategy for the most vulnerable communities in La Mojana" was socialized. The scope and the stakeholders involved were presented and there were discussions about the community's interest in participating in it and how the proposal would contribute to improving the living conditions of the population.</p> <p>The Councils expressed total interest and commitment. They consider that the project will contribute to the recovery of their wetlands that have been lost due to environmental degradation and through this process they will <i>"be able to rescue some ancestral customs, such as cultivating maize again (which is a fundamental part of their diet), rescuing the Junco and the Enea (Aquatic reeds that serve to make mats and handicrafts) and traditional fishing"</i>. On this last point, they stated that, if the project were approved, they would commit themselves to being the guardians of the wetlands and ensure the resumption of ancestral fishing practices, such as fishing with <i>chuzos</i> (spears) and <i>atarrayas</i> (a round net), in order to avoid over-exploitation and in this way keep the fish in the swamps and streams.</p> <p>Although their communities have local water supply systems, they affirm that the quality of the water is terrible and sometimes it smells bad (especially when there is flooding), so it cannot be consumed. They consider that it would be very important for the communities to have drinking water that they and their children would be able to consume with peace of mind.</p> <p>Regarding the role of women, they stated that, although their main work is in the house, they are also expected to work on homegardens (for their restoration), and they can also participate in rice cultivation and do work associated with productive activities. They said that it would be the first time in their communities they would have a project of this magnitude, which would help them, especially in times of drought, which is when they have most problems with livestock. The indigenous people see it as very positive that small producers are supported with a plan that considers the climate problems and the most resistant local seeds, because " with at least one hectare of rice or corn which you sow, you have seed for the next few crops. That's why we like native seeds, because we can save them to grow crops for many years. "</p>
<p>Lomas de Palito Council (Lomas de Palito)</p> <p>Location of the consultation meeting: San Benito Abad-</p> <p>Date:</p>	<p>Presentation of the proposal "Integrated management of water resources as a climate change adaptation strategy for the most vulnerable communities in La Mojana". The scope of the proposal and the stakeholders involved were socialized, and there were discussions about the community's interest in participating in it, and how the proposal would contribute to improving the living conditions of the population.</p> <p>The representatives of the Council said that this project is useful for the work they are doing to rescue the swamps and help to stop the pressures on them. They say that if the project is approved, they would be restoring areas of wetlands, which in the past provided them with many services, such as the palms they used for the construction of their homes and the wild animals for their diet. The project, they say, would also be a great opportunity to involve young people in restoring ancestral customs related to crops, <i>"in our Zenú culture, the land is everything because it gives us everything, but that is being forgotten, because with the</i></p>

<p>11/19/2016</p>	<p><i>climatic phenomena of floods and drought, we have abandoned many customs and we have forgotten how to work and care for it so that it gives us sustenance".</i></p> <p>Regarding the role of women, they said that although women from their culture do not traditionally participate in decision-making, they do work hard, <i>"although we are now changing that practice: it is possible that at the next meeting, we will have a woman captain in the Council."</i> The women in this community are in charge of planting trees and caring for the forests. At the end of the meeting, they expressed their total commitment and motivation to work on the project, as it would be an opportunity for the community.</p>
<p>Councils: Pital Monte grande Santo Domingo</p> <p>Location of the consultation meeting: San Marcos.</p> <p>Date: 11/23/2016</p>	<p>Presentation of the proposal "Integrated management of water resources as a climate change adaptation strategy for the most vulnerable communities in La Mojana". The scope of the proposal and the stakeholders involved were socialized at the meeting, and there were discussions about the community's interest in participating in it and how the proposal would contribute to improving the living conditions of the population.</p> <p>The Monte grande Council expressed its view that the project would come at a very opportune moment, in particular because they had begun a reforestation process as a measure to recover deteriorated zones. In addition, they said that on the issue of wetland restoration and protection of natural resources, the project would contribute to the protection of water sources, which are at risk due to exploration that oil companies want to carry out: <i>"we are carrying out advocacy so that they do not do that drilling in the community"</i>.</p> <p>The Council of Santo Domingo expressed interest in the cultivation and management of <i>caña flecha</i> fibers, as they are not only used to make handicrafts, but also have the ecological function of protecting the shores of swamp forests, marshes and streams from erosion.</p> <p>The indigenous councils of Monte grande and Santo Domingo own lands that each exceed 200 hectares and are already implementing environmental projects through the Watershed Management Plans. For their part, women expressed interest in participating in productive activities, such as organizing homegardens and cultivating staple crops.</p>

### 4.3 Recommendations for carrying out the project with a differential approach

For the communities of the Zenú people, the project would be fundamental for the environmental restoration of the territory and their adaptation, and will be an opportunity for their future. Based on the results of the meetings and other communications, the following activities were proposed for each output, in order to include the differential approach in the project:

1. In Output 1, create an institutional training project for the indigenous communities which makes it possible to educate young people and create a training school for adaptation and new leadership in the community, based on the dialogue of knowledge, and apply their knowledge in the development of the project. This training project must: be better than workshop-based training; be more systematic in including and promoting the traditional knowledge of the Zenú people; generate capacity in young people, not only in specific technical aspects but also in territorial and environmental management, under a rights approach that contributes to overcome the undervaluation of one's own; and generate opportunities of adaptation from and for the community.
2. In Output 2, it is requested that the solutions of rainwater harvesting and micro-aqueducts be used to benefit the 9 communities in the project area and ensure their linkage and training, so that the communities may contribute to the program's sustainability.
3. In Output 2, on the restoration of marshes and streams, ensure the participation of indigenous communities and include the use and management of species such as *junco*, *enea* and *totumo*, which are important for both the ecosystems and for the cultural preservation of the Zenú people.
4. In Output 3, ensure that the early warning systems function as a climate observatory, providing timely and appropriate information so that the community can undertake analyses and proposals. This information will improve the execution of the project and ensure the availability and understanding of climate information to aid the decision-making of the indigenous councils and thus facilitate the appropriation by the community, as a basis for the sustainability of the process in the medium and long term.
5. In Output 4, include the adaptation approach in the "Seeds of Life" self-education program promoted by the High Indigenous Council of the Zenú people, which is aimed at the children of the community in which the conservation of the territory and the strengthening of cultural identity are supported.
6. In Outputs 2, 3 and 4, the project should adopt the research-action-participation methodology, so that the contents of Output 1 can be used and applied through the dialogue of knowledge, and the agreements of proposals for technological innovation can be understood by the ancestral knowledge and the proposals of the inhabitants of La Mojana, both in the recovery of ecosystems and in the management and improvement of adaptive practices in productive activities.
7. Include other species in Output 4, principally maize, cassava and watermelon, crops which form the basis of the Zenú people's diet.
8. In Output 4, create an intercultural team, which is made up of professionals from the project along with elders and/or young people from the community respecting cultural sensitivities on the roles of men and women. This team will be gender inclusive. Working together and exchanging knowledge will make it possible for the changes required for adequate adaptation to be culturally relevant, socially appropriate

and allow future children and youth, the sons and daughters of indigenous people, peasants and cattle farmers to be leaders and social advisors for adaptation in the territory.

9. The project should develop a process of organizational consolidation as a central pillar, as this will allow the strengthening of ethnic identity and the understanding of the impacts of climate change, for example in the agricultural calendar, as well as in other traditions and customs, as a basis for adaptation of the Zenú people. It is important to bear this in mind because, although there is not much geographical connection between the different settlements, there will be meetings between the different settlements that will strengthen cultural ties and their identity as a people, which will allow them to live as a culture and this will be the basis of current and future adaptation.
10. It is proposed that the technical assistance teams for the development of the project incorporate the young people that are trained through the development of Output 1 and create a scholarship fund for their own research into adaptation that will contribute to problem solving in the implementation of technological alternatives or members of the community and gather the added value of traditional knowledge on adaptation. A competition will be organized and the results of the most relevant research will be disseminated both in the community and in the region; there will also be exchanges of experiences promoting not only local and regional integration between communities but also, at a national level, with other indigenous peoples about their experiences of adaptation.
11. Develop integrated operational management that considers all the Outputs so that the solutions to the water problem and the improvement of the productive systems are directly related to the recovery and protection of the ecosystems. Ensure that there are intercultural teams in the different Outputs that link both young people and elders from the Zenú people.

## **5 Information dissemination, prior consultation and participation**

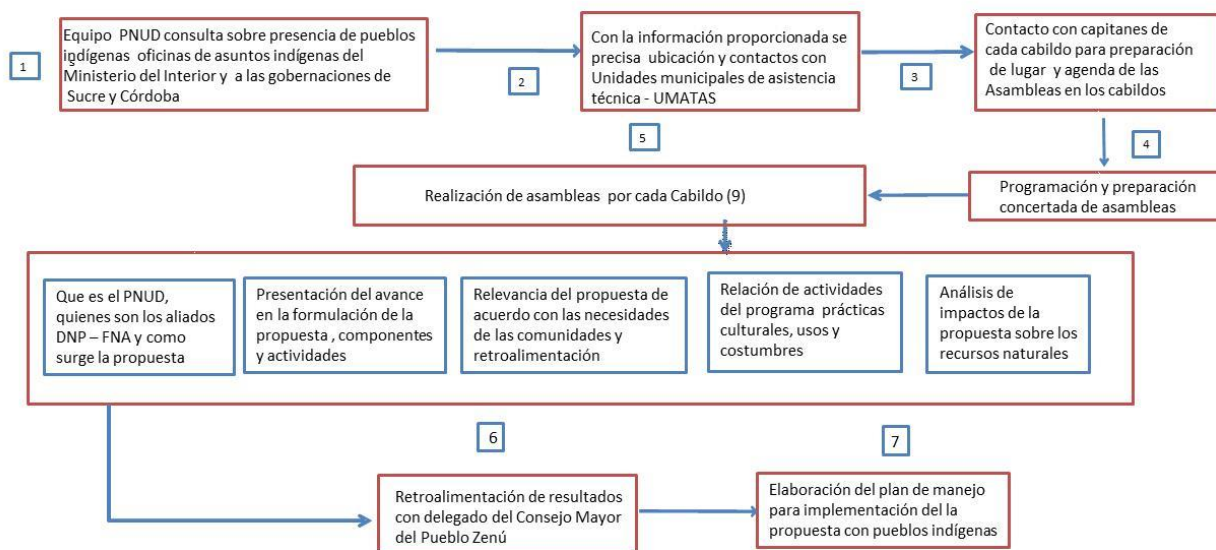
During the formulation of the project, it has been possible to identify the presence of small settlements of indigenous communities of the Zenú people. They have been affected by the armed conflict, which has caused them to leave their original lands, particularly since the first decade of this century. Therefore, they are in the process of being recognized as victims by the Ministry of the Interior of Colombia.

Considering the origin of the communities and the self-identification of their members as indigenous peoples, in order to initiate the process of information dissemination, prior consultation and participation, the UNDP, jointly with the Adaptation Fund, designed and applied the following, which is presented in Figure 1 .

Through the regional office of the UNDP and the Adaptation Fund, the indigenous affairs offices of the Cordoba and Sucre governments were contacted. Between Sept – Nov 2016, once the indigenous communities in the department were identified, their specific locations in the municipalities within the project area were pinpointed and the leaders of the settlements identified, in order to inform them of the project and the preparation of the meetings to identify the communities' interest in the project and their opinion on the content, scope and development of the project.

In compliance with the norms and organizational forms of the Zenú people, we requested the accompaniment of the councilors of the High Council of San Marcos. In the meetings, the participation of women, the elderly, children and adolescents was encouraged, and the presentation of the project took place between November 19 and 24 in the municipalities of San Benito y Abad and San Marcos, in Spanish, as this is the language of the Zenú people.

**Figure 1. Flow chart for dissemination, consultation and disclosure**



Given the rights-based approach of the project and the recognition, made by the Colombian government, of the right of indigenous peoples to autonomy and self-government, as well as their own culture, and the right to define their priorities in the development process, the UNDP and the Adaptation Fund made agreements with the leaders of the indigenous councils about the places to hold the meetings, as well as the methodology and duration, and a printed version of the proposal was also given to each Council. The presentation of the proposal was made orally in the Spanish language which is the current language of the Zen. Drawings were used on newspaper sheets and the captains were left with the presentation of the project printed.

Subsequently the results of the meetings were socialized with the delegate of the High Council of the Zenú People, Darío Mejía, who made sure that the project proposal was aligned with the territorial strategies of the Zenú people.

## 6. Benefits of the Measures

In general, the communities of the 9 councils that were consulted considered that the content of the project, especially that which was related to the recovery and restoration of the wetlands and the adaptive improvement to water infrastructure, will lead to an improvement in the quality of life of the Zenú people, and will recover cultural elements that have been lost or restore the deteriorated main marshes and streams, which they depend on greatly for their livelihood.

Having good knowledge about the impact of climate change will be essential in order to protect crops, housing and livelihoods, and fundamental in that it is based on the dialog of knowledge and recognizes the practices and knowledge that are specific to the Zenú communities.

Regarding resilient agro-ecosystems to improve the livelihoods of the communities, it is considered important that they should be diversified and should include maize, which is a staple crop of the Zenú culture and tradition. It is

also considered essential that Indigenous Councils should have access to climate information to make decisions regarding sowing and harvesting, in order to avoid losses and ensure the food security of the Zenú communities.

## **7. Mitigation Measures**

So that the project does not apply technologies or adaptive innovations that can affect the culture or the organizational and social forms of the Zenú people, three measures are proposed:

- i) Intercultural teams will be created for the different outputs,
- ii) The early warning systems will be a "climate observatory", which will allow the monitoring of the relationship between climate and the development and impacts of the adaptation measures, generating learning that will be important for the sustainability of the project actions.
- (iii) Ensure the participation of communities in the technical committee of the project with indigenous representatives selected by the community during meetings in the starting phase of the project and a delegate of the ONIC in the Steering Committee respectively, all of whom will ensure that the strategies, actions and contents of the project respect the integrity and Culture of the Zenú people.

## **8. Capacity Building**

In order for the project to contribute to strengthening or creating new capacities for the adaptation of the Zenú people, the project will include:

1. The institutional training project for indigenous communities aimed at young people, in order to create a training school for trainers in the field of adaptation and to help close the generational leadership gap that exists today in the Zenú community.
2. The adaptation approach in the "Seeds of Life" project promoted by the High Council of the Zenú people, which is aimed at the children of the community and aims to promote a generational change, which will be fundamental to strengthen climate change adaptation processes in the future.
3. Intercultural teams, with both elders and young people (male and female) of the community, to implement a research-action-participation strategy which, together with the scholarship project for indigenous research into adaptation, will allow the information learned and the generation of new knowledge to be developed and appropriated by the community, with an intergenerational approach and a focus on strengthening their own knowledge and cultural identity.
5. The functioning of the early warning system as a "climate observatory" for adaptation, coupled with the active participation of the community in the different processes on the ground and its participation in the consultative, technical and steering committees, will be scenarios that will allow them to strengthen themselves and reach out towards intercultural dialogue with peasant organizations and government institutions at regional and local levels. This is a platform and area of action that will be important to promote the proposals for the self- and adaptive development of the Zenú people in the medium term and will help them to have an influence on regional and local development policies in the future.

## 9. Grievance Redress Mechanism

The project will ensure that their rights and cultural tradition are protected, so the Councils of the Zenú people will have participation in the different bodies of the project such as the Steering Committee and technical committees, where any complaints or grievances that may arise during the development of the project will be resolved in the first instance.

At the local level, consultations were conducted on the basis of free, prior and informed consent. All the Councils and people participating accepted the consultations fully and openly.

The project allows those that feel aggrieved by the project to be able to communicate their concerns and/or grievances through an appropriate process. The Complaints Register and Grievance Redress Mechanism set out in this ESMP and to be used as part of the project will provide an accessible, rapid, fair and effective response to concerned stakeholders, especially any vulnerable group, as these often lack access to formal legal regimes.

Although there is in Colombia a complaint mechanisms in place (see Annex 3 below), to ensure that any complaints that may arise are resolved in a way that maximizes benefits to both the project and the affected parties, the following aspects will be considered for developing a specific Grievance Redress Mechanism for this project – a detailed of a proposed GRM is described in Annex 3:

1. Special attention will be given to the cultural norms of the Zenú people in the project area
2. It must be ensured that the community has information about project activities, criteria for selecting alternatives and possible impacts on them
3. Positive and purposeful relationships will be created between stakeholders, including parties affected by any project action
4. A mechanism will be provided so that affected parties can negotiate and influence project decisions and policies that may adversely affect them
5. Adverse impacts of the project on the environment will be mitigated or prevented, and appropriate corrective or preventive actions carried out
6. Project activities will be harmonized with the activities of potentially affected parties to avoid complaints or disputes before they arise, if possible
7. In the event of a complaint or dispute, platforms for dialog will be provided to address these issues so that they can be resolved as they occur
8. The eligibility criteria for the Grievance Redress Mechanism include: a. Any negative economic, social or environmental impact perceived by an individual and/or group, or concern about the potential to cause such an impact; b. Specific impacts that have occurred or have the potential to occur and an explanation of how the project caused or may cause such an impact
9. The individual and/or collective presentation of a complaint and/or grievance due to an impact, or the risk of being impacted, must be presented by a person or group that represents or has the authority of the interest group.
10. The persons or groups that file the complaint must live within the project's areas of action and must have lived there for at least three years
11. When the complaints cannot be resolved, people can go to <http://www.undp.org/hotline>. Alternatively, complaints can be sent directly to the OAI (Office of Audit and Investigations) at [hotline@undp.org](mailto:hotline@undp.org).
12. They may also be sent to the Subdirector (Investigations) or the Office of Audit and Investigations (OAI) of the UNDP, 220 East 42nd Street, 23rd Floor, New York, NY 10017 25, USA.
13. Within the country there are also instances that can be used for the protection of rights when they are violated (see Annex 3)

## 10. Monitoring, Reporting and Evaluation

The implementation of the indigenous peoples' plan will include a professional expert who will carry out the monitoring and write progress reports on the implementation of the program with indigenous peoples. The councils participating in the project, the High Regional Council of the Zenú People and the ONIC, will receive quarterly progress reports and will be informed of the reports submitted to the board on the progress of the program.

## 11. Institutional Agreement

In order to ensure the satisfactory participation of the Zenú people in the project, they will be encouraged to participate in the advisory committee and the technical committee with voice and vote. The internal and autonomous mechanisms of the settlements and the High Council of the Zenú people will be respected in the selection of and accountability mechanisms for the delegates to the communities.

At the national level, the participation of a delegate from the National Indigenous Organization of Colombia, with voice and vote in the Steering Committee of the project, will ensure that the project's decisions embrace the rights approach and that the differential measures from the Management Plan for Indigenous Peoples are applied.

If necessary, the project will support mechanisms so that regular assemblies can be held to monitor the results and progress of the project. Likewise, meetings between delegates of the advisory, technical and steering committees will be encouraged in order to facilitate coordination between the different territorial levels of indigenous organizations, since the correct coordination of their delegates and the strengthening of their ability to make proposals will contribute to a better execution and therefore direct and indirect benefits for the communities of the Zenú people in the action area of the project.

## 12. Budget and Financing

This section provides a detailed budget for all the activities described in the Plan for Indigenous People

Type of Supply	Category	Percent to apply for indigenous people	Activity	Description of procurement	First year % of disbursement
services	Training, Workshops and Confer	3.125	1.1. Gather information required for a long-term climate-resilient water management solution for La Mojana	Workshops for sharing results of analyses with participation of indigenous people	25%

services	Training, Workshops and Confer	3.125	1.2. Management of adaptation knowledge on water resources	Workshops for sharing results of analyses with participation of indigenous people	25%
Services	Contractual Services-Companies	213.552	2.1. Establish Climate Resilient Water Solutions	resilient rural water solutions with focus on gender specially in families with indigenous people	25%
services	Training, Workshops and Confer	26.658	2.1. Establish Climate Resilient Water Solutions	Workshops for sharing results of analyses with participation of indigenous people	25%
Services	Contractual Services-Companies	190.834	2.1. Establish Climate Resilient Water Solutions	rural disperse solutions with water for 5460 families with focus on gender specially in families with indigenous people	25%

Services	Contractual Services-Companies	49.980	2.1.Establish Climate Resilient Water Solutions	solutions for rural nuclei without water 17.813for 5460 families with focus on gender specially in families with indigenous people	0,25
Services	Contractual Services-Companies	100.000	2.2 Increase resilience of natural ecosystems and ecosystems-based livelihoods	microcapital agreements with focus on gender specially in families with indigenous people	0,25
Services	Contractual Services-Companies	75.000	2.2 Increase resilience of natural ecosystems and ecosystems-based livelihoods	microcapital agreements with focus on gender specially in families with indigenous people	25%
Services	Contractual Services-Companies	12.250	2.2 Increase resilience of natural ecosystems and ecosystems-based livelihoods	strengthen of 35 group of women	25%
Services	Contractual Services-Companies	42.672	2.2. Increase resilience of natural ecosystems and ecosystems-based livelihoods	topography an material removal works in areas with a high concentration of indigenous people	25%

Services	Contractual Services-Companies	48.000	2.2. Increase resilience of natural ecosystems and ecosystems-based livelihoods	sediment decontamination in areas with a high concentration of indigenous people	25%
Services	Contractual Services-Companies	37.425	2.2. Increase resilience of natural ecosystems and ecosystems-based livelihoods	mechanical recovery of 127 km of chanel in areas with a high concentration of indigenous people	25%
Services	Contractual Services-Companies	30.000	2.2. Increase resilience of natural ecosystems and ecosystems-based livelihoods	vegetal removal and restauration of riparian zones in areas with a high concentration of indigenous people	25%
services	Training, Workshops and Confer	39.000	2.2. Increase resilience of natural ecosystems and ecosystems-based livelihoods	Workshops for sharing results of analyses with participation of indigenous people	25%
services	Training, Workshops and Confer	7.500	3.1 Strengthen monitoring and early warning systems	Workshops for sharing results of analyses with participation of indigenous people	25%
services	Training, Workshops and Confer	1.563	4.1 Conduct Agroecosystems livelihood diversification research	Workshops for sharing results of analyses with participation of indigenous people	25%

Services	Contractual Services-Companies	167.750	4.2 Improve water resource management in household-level food production	6700 homegardens in rural disperse areas with focus on indigenous people	25%
services	Training, Workshops and Confer	15.000	4.2. Improve water resource management in household-level food production	Workshops for sharing results of analyses with participation of indigenous people	25%
services	Training, Workshops and Confer	15.000	4.3. Enhance climate resilient agroextension programmes	Workshops for sharing results of analyses with participation of indigenous people	25%
<b>Total Estimated Procurement Plan</b>		<b>1.078.433</b>			

## Annex 1

### **Engagement with Indigenous Peoples in the “Scaling up climate resilient water management practices for vulnerable communities in La Mojana”**

Following national policies on Indigenous Peoples and Ethnic Minorities, the Indigenous People’s Report and the Indigenous People’s Planning Framework has been prepared to guide the formulation of project components, ensuring equal distribution of project benefits between Indigenous Peoples and non-Indigenous Peoples who are affected by the Project. The principal objectives of the Indigenous People’s Planning Framework serve to:

- a. Screen project components early to assess their impacts on Indigenous Peoples households;
- b. Ensure meaningful participation, consultation and consent with Indigenous Peoples living in the project locations in the process of preparation, implementation, and monitoring of project activities;
- c. Prepare the Indigenous People’s Planning Framework to mitigate any possible and unintended adverse impacts;
- d. Ensure that Indigenous Peoples receive culturally appropriate social and economic benefits from the project;
- e. Define the institutional arrangement for screening, planning and implementation of Indigenous Peoples plans for projects; and
- f. Outline the monitoring and evaluation process of the review and implementation of the plan.

### **UNDP’s commitment to a human rights-based approach**

UNDP is committed to a human rights-based approach, applying a conceptual framework for the process of human development based on international human rights standards. It is directed to promoting and protecting human rights and seeks to analyse inequalities which lie at the heart of development problems, while seeking to and redress discriminatory practices and unjust distributions of power that impede development progress. In by so doing, UNDP emphasizes that commitment to a human rights based approach undergirds design and implementation of the engagement approach with Indigenous Peoples.

Particular attention is paid to indigenous peoples’ collective rights to land, territories and resources, resource use and customary rights. A specific provision should deal with indigenous peoples in voluntary isolation.

Free, prior and informed consent was adhered to and respected. Once the project would be approved there would be needed to go back to the communities in order to share with them the final version of the project approved that will include the mechanisms for their participation.

### **Indigenous Peoples Engagement**

The approach undertaken by UNDP to engage with Indigenous People’ in the project area follows recognized and legitimate Zenú Indigenous Peoples representation (initial identification through the indigenous affairs offices of the Interior Ministry and the Governments of Sucre and Córdoba; Municipal Units for Technical Assistance

(UMATAS); and Zenú Indigenous Councils); Initial agreement to engage; and capacity to participate and make decisions.

Field data was collected in the communities of Pital, Montegrando, Santo Domingo Vidal, and Jeguita – Takasuan all of which have settlements in the project area; and the impact of the project on their natural resources.

Community consultations enabled identification of impacts; discussed the relationship of the project with the cultural characteristics of the Zenú people; assessed the demand for capacity strengthening.

Communities through awareness-raising and feedback meetings, identified potential impacts of the project, the relationship with the cultural characteristics of the Zenú people, their demand to strengthen their capacities, and the impact on natural resources.

Indigenous Councils were consulted to discuss issues and determine recommendations and conclusions, including: Takasuan Council (from Sispataca, El Limón, Villanueva and La Ceiba veredas), Lomas de Palito Council (Lomas de Palito), Pital, Montegrando, and Santo Domingo.

In carrying out the consultations activities were then proposed for each output.

### **Outcome and outputs from the engagement process**

Free, prior and informed consent for the project was given based given based on a set of conditions. These have been considered and adopted in the revised project.

For the communities of the Zenú people, the project would be fundamental for the environmental restoration of the territory and their adaptation, and will be an opportunity for their future. Based on the results of the meetings and other communications, the following activities were proposed for each output, in order to include the differential approach in the project:

1. In Output 1, create an institutional training project for the indigenous communities, which makes it possible to educate young people and create a training school for adaptation and new leadership in the community, based on the dialogue of knowledge, and apply their knowledge in the development of the project.
2. In Output 2, it is requested that the solutions of rainwater harvesting and micro-aqueducts be used to benefit the 9 communities in the project area and ensure their linkage and training, so that the communities may contribute to the program's sustainability.
3. In Output 2, on the restoration of marshes and streams, ensure the participation of indigenous communities and include the use and management of species such as *junco*, *enea* and *totumo*, which are important for both the ecosystems and for the cultural preservation of the Zenú people.
4. In Output 3, ensure that the early warning systems function as a climate observatory, providing timely and appropriate information so that the community can undertake analyses and proposals.
5. In Output 4, include the adaptation approach in the "Seeds of Life" self-education program promoted by the High Indigenous Council of the Zenú people, which is aimed at the children of the community in which the conservation of the territory and the strengthening of cultural identity are supported.
6. In Outputs 2, 3 and 4, the project should adopt the research-action-participation methodology, so that the contents of Output 1 can be used and applied through the dialogue of knowledge, and the agreements of proposals for technological innovation can be understanding of the ancestral knowledge and the proposals

of the inhabitants of La Mojana, both in the recovery of ecosystems and in the management and improvement of adaptive practices in productive activities.

7. Include other species in Output 4, principally maize, cassava and watermelon, crops that form the basis of the Zenú people's diet.
8. In Output 4, create an intercultural team, which is made up of professionals from the project along with elders and/or young people from the community.
9. The project should develop a process of organizational consolidation as a central pillar, as this will allow the strengthening of ethnic identity and the understanding of the impacts of climate change, for example in the agricultural calendar, as well as in other traditions and customs, as a basis for adaptation of the Zenú people.
10. It is proposed that the technical assistance teams for the development of the project incorporate the young people that are trained through the development of Output 1 and create a scholarship fund for their own research into adaptation that will contribute to problem solving in the implementation of technological alternatives or members of the community and gather the added value of traditional knowledge on adaptation.
11. Develop integrated operational management that considers all the Outputs so that the solutions to the water problem and the improvement of the productive systems are directly related to the recovery and protection of the ecosystems. Ensure that there are intercultural teams in the different Outputs that link both young people and elders from the Zenú people.

## Monitoring and Evaluation

The implementation of the indigenous peoples' plan will include a professional expert who will carry out the monitoring and write progress reports on the implementation of the program with indigenous peoples. The councils participating in the project, the High Regional Council of the Zenú People and the National Indigenous Organization of Colombia (ONIC), will receive quarterly progress reports and will be informed of the reports submitted to the board on the progress of the program.

## Grievance Redress Mechanisms

The GRM will be built with respect to current statutory provisions and customary norms. Clear steps in the GRM have been identified, and eligibility criteria determined.

<p><b>Decree 2591 of 1991</b></p>	<p>Regulates the writ of amparo set out in article 86 of the Political Constitution</p>	<p>Any person may use the writ of amparo, through a preferential and summary proceeding, by themselves or through someone acting in their name, for the immediate protection of their fundamental constitutional rights, whenever they are violated or threatened by the action or lack of action of any public authority or individual. A writ of amparo can be filed at any time on any day. The writ of amparo will proceed even under states of exception.</p>
<p><b>Law 393 of 1997</b></p>	<p><i>Acción de cumplimiento</i> (Enforcement Action /public writ of mandamus)</p>	<p>Any person may exercise the <i>Acción de Cumplimiento</i> for norms which have the force of Law or Administrative Acts. The following may also exercise the Compliance Action a) Civil Servants, in particular: the <i>Procurador General</i> (General Inspector) of the Nation, the Regional and Provincial <i>Procuradores</i>, the <i>Defensor del Pueblo</i> (Public Ombudsman) and his delegates, the <i>Personeros Municipales</i> (Municipal Attorneys), the <i>Contralor General</i> (Comptroller) of the Republic and</p>

		<p>Departmental, District and Municipal <i>Contralores</i>. b) Social Organizations, c) Non-Governmental Organizations.</p> <p>The <i>Acción de Cumplimiento</i> will be directed against the administrative authority which must comply with the norm that has force of Law or Administrative Act.</p> <p>The <i>Acción de Cumplimiento</i> shall proceed against any action or omission of an authority that breaches, or performs acts or deeds that suggest an imminent breach of, norms with force of Law or Administrative Acts. It will also proceed against actions or lack of action by individuals, in accordance with the provisions of Law 397 of 1993.</p>
<b>Law 850 of 2003</b>	<p><i>Veedurías ciudadanas</i> (Public inspectors' offices)</p> <p>Regulated by Article 270 of the Political Constitution and Article 100 of Law 134 of 1994</p>	<p>All citizens, as a group of individuals or through civil organizations such as community, professional, youth, trade union, charitable or common good, non-governmental or non-profit organizations that are constituted according to the law may create <i>Veedurías ciudadanas</i>. Civil organizations or citizens will proceed to democratically elect the <i>veedores</i> (inspectors), then create a document or act of constitution which states the names of the members, their identity documents, the objective of the monitoring, its location, duration and place of domicile.</p> <p>This document will be registered before the <i>Personería</i> of the town or city, or before the Chambers of Commerce, who must keep public record of the <i>Veedurías</i> registered in its jurisdiction. In the case of indigenous communities, this role will be assumed by the authorities themselves.</p> <p>Public oversight carried out by the <i>Veedurías</i> may take place over administrative management, if it is in the general interest and observes the principles of equality, morality, efficiency, economy, speed, impartiality and disclosure.</p> <p>The following will be of particular importance in the observance carried out by the <i>Veeduría</i>: the correct application of public resources; the way in which they are allocated in accordance with legal provisions and duly approved plans, programs, and projects; the fulfillment of the remit, aims and effective coverage of the beneficiaries, which must be addressed in accordance with the aforementioned provisions; the quality, timeliness and effectiveness of public interventions; public contracting; and the diligence of the various authorities to ensure compliance with state objectives in the different areas of management that have been entrusted to them.</p>
<b>Law 472 of 1998</b>	<p><i>Acciones populares</i> (Popular Actions)</p> <p>Implemented by Article 88 of the Political Constitution of Colombia</p>	<p>These are the procedural means for the protection of collective rights and interests. The right to <i>accion popular</i> is exercised to avoid possible harm, to stop the danger, threat, violation or injury to collective rights and interests, or to restore matters to their former state when possible.</p> <p>Class actions: They are actions brought by a plural number or a group of persons who meet uniform conditions with respect to the same cause that caused individual damages to said persons. There must also be uniform conditions in respect of all the responsible parties. The class action will be used exclusively to obtain recognition and payment of compensation for damages. The norm identifies as collective rights and interests, among others, those related to:</p> <p>a) The enjoyment of a sound environment, as established in the Constitution, the law and other regulations;</p> <p>b) Administrative morality;</p>

		<p>c) The existence of an environmental balance and the rational management and use of natural resources to guarantee their sustainable development, conservation, restoration or replacement, the conservation of animal and plant species, the protection of areas of particular ecological importance, ecosystems located in border areas, as well as other community interests related to the preservation and restoration of the environment;</p> <p>d) The enjoyment of the public space and the use and defense of public property;</p> <p>e) The defense of public heritage;</p> <p>f) The defense of the cultural heritage of the Nation;</p> <p>g) Public safety and health;</p> <p>h) Access to a service infrastructure that guarantees public health;</p> <p>i) Free economic competition;</p> <p>j) Efficient and timely access to public services;</p> <p>k) Prohibition of the manufacture, importation, possession and use of chemical, biological and nuclear weapons, as well as the introduction into national territory of nuclear or toxic waste;</p> <p>l) The right to security and prevention of technically foreseeable disasters;</p> <p>m) The construction of buildings, edifications and urban developments respecting the legal provisions, in an organized way, and providing the inhabitants with the benefits of a good quality of life;</p> <p>n) The rights of consumers and users.</p> <p>Likewise, collective rights and interests are defined as such in the Constitution, ordinary laws and international treaties executed by Colombia.</p>
<p>Law 1755 of 2015</p>	<p>Regulates the fundamental right of Petition</p> <p>Article 23 of the Political Constitution</p> <p>(Replaces a section of the Code of Administrative Procedure and Contentious Administrative Law).</p>	<p>Every person has the right to submit respectful petitions to the authorities, under the terms indicated in this law, for reasons of general or individual interest, and to obtain prompt and complete resolution of said petition. Through this right, among other actions, it is possible to request: the recognition of a right; the intervention of an entity or official; the resolution of a legal situation; provision of a service; information; permission to consult, examine and receive copies of documents; as well as presenting consultations, complaints, grievances and claims and filing appeals.</p> <p>The exercise of the right of petition is free of charge and may be carried out without the need for representation through a lawyer or an adult when dealing with minors in relation to the entities dedicated to their protection or training. Unless special legal rule and under penalty of disciplinary sanction, any petition must be resolved within fifteen (15) days after its receipt. The resolution of the following petitions will be subject to a special term:</p> <ol style="list-style-type: none"> <li>1. Requests for documents and information must be resolved within ten (10) days of receipt. If in that period the petitioner has not received a response, it will be understood, for all legal purposes, that the respective application has been accepted and, therefore, the administration can no longer deny the delivery of said documents to the petitioner, and as a consequence copies will be delivered within three (3) days.</li> <li>2. Petitions where a consultation is passed on to a higher authority that is responsible for the issue. In this case, the petition must be resolved within thirty (30) days of its receipt.</li> </ol>

# GRIEVANCE REDRESS MECHANISM FOR THE PROJECT

## 1 Communication

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### 1.1 Public consultation and Environmental and Social Disclosure

1. The EMSF includes public consultation as part of the stakeholder engagement plan. The project was discussed with a wide range of stakeholders including relevant government departments, industry groups, NGOs, and individual community members and approved by Government. Extensive on-ground consultation has been undertaken during the design of the project (as well as during the earlier projects that this project is aiming to upscale) and it is expected that consultation with any affected communities will continue. It is anticipated that based on the communities' needs, the projects will be fully accepted.
2. The UNDP and NAF will develop and release updates on the project on a regular basis to provide interested stakeholders with information on project status. Updates may be via a range of media eg print, radio, social media or formal reports. A publicized telephone number will be maintained throughout the project to serve as a point of contact for enquiries, concerns and complaints. All enquiries, concerns and complaints will be recorded on a register and the appropriate manager will be informed. All material must be published in English and Spanish.
3. Where there is a community issue raised, the following information will be recorded:
  - time, date and nature of enquiry, complaint or concern;
  - type of communication (e.g. telephone, letter, personal contact);
  - name, contact address and contact number;
  - response and investigation undertaken as a result of the enquiry, complaint or concern; and
  - actions taken and name of the person taking action.
4. Some enquiries, complaints and concerns may require an extended period to address. The complainant(s) will be kept informed of progress towards rectifying the concern. All enquiries, complaints and concerns will be investigated and a response given to the complainant in a timely manner. A grievance redress mechanism has been included in the ESMF to address any complaints that may not be able to be resolved quickly.
5. Nominated PMU/contractor staff will be responsible for undertaking a review of all enquiries, complaints and concerns and ensuring progress toward resolution of each matter.

### 1.2 Complaints register and grievance redress mechanism

6. During the construction and implementation phases of any project, a person or group of people can be adversely affected, directly or indirectly due to the project activities. The grievances that may arise can be related to social issues such as eligibility criteria and entitlements, disruption of services, temporary or permanent loss of livelihoods and other social and cultural issues. Grievances may also be related to environmental issues such as excessive dust generation, damages to infrastructure due to construction related vibrations or transportation of raw material, noise, traffic congestions, decrease in quality or quantity of private/ public surface/ ground water resources during wetland rehabilitation, damage to home gardens and agricultural lands etc.
7. Should such a situation arise, there must be a mechanism through which affected parties can resolve such issues in a cordial manner with the project personnel in an efficient, unbiased, transparent, timely and cost-effective manner. To achieve this objective, a grievance redress mechanism has been included in EMSF for this project.
8. The project allows those that have a complaint or that feel aggrieved by the project to be able to communicate their concerns and/or grievances through an appropriate process. The Complaints Register and Grievance Redress Mechanism set out in this EMSF are to be used as part of the project and will provide an accessible,

rapid, fair and effective response to concerned stakeholders, especially any vulnerable group who often lack access to formal legal regimes.

9. While recognising that many complaints may be resolved immediately, the Complaints Register and Grievance Redress Mechanism set out in this EMSF encourages mutually acceptable resolution of issues as they arise. The Complaints Register and Grievance Redress Mechanism set out in this EMSF has been designed to:
  - be a legitimate process that allows for trust to be built between stakeholder groups and assures stakeholders that their concerns will be assessed in a fair and transparent manner;
  - allow simple and streamlined access to the Complaints Register and Grievance Redress Mechanism for all stakeholders and provide adequate assistance for those that may have faced barriers in the past to be able to raise their concerns;
  - provide clear and known procedures for each stage of the Grievance Redress Mechanism process, and provides clarity on the types of outcomes available to individuals and groups;
  - ensure equitable treatment to all concerned and aggrieved individuals and groups through a consistent, formal approach that, is fair, informed and respectful to a complaint and/or concern;
  - to provide a transparent approach, by keeping any aggrieved individual/group informed of the progress of their complaint, the information that was used when assessing their complaint and information about the mechanisms that will be used to address it; and
  - enable continuous learning and improvements to the Grievance Redress Mechanism. Through continued assessment, the learnings may reduce potential complaints and grievances.
10. Eligibility criteria for the Grievance Redress Mechanism include:
  - Perceived negative economic, social or environmental impact on an individual and/or group, or concern about the potential to cause an impact;
  - clearly specified kind of impact that has occurred or has the potential to occur; and explanation of how the project caused or may cause such impact; and
  - individual and/or group filing of a complaint and/or grievance is impacted, or at risk of being impacted; or the individual and/or group filing a complaint and/or grievance demonstrates that it has authority from an individual and or group that have been or may potentially be impacted on to represent their interest.
11. Local communities and other interested stakeholders may raise a grievance/complaint at all times to the NAF. Affected local communities should be informed about the EMSF provisions, including its grievance mechanism and how to make a complaint.

### 1.2.1 Complaints register

12. Where there is a community issue raised, the following information will be recorded:
13. A complaints register will be established as part of the project to record any concerns raised by the community during construction. Any complaint will be advised to the UNDP and NAF within 24 hours of receiving the complaint. The complaint will be screened. Following the screening, complaints regarding corrupt practices will be referred to the UNDP for commentary and/or advice along with the NAF.
14. Wherever possible, the project team will seek to resolve the complaint as soon as possible, and thus avoid escalation of issues. However, where a complaint cannot be readily resolved, then it must be escalated.
15. A summary list of complaints received and their disposition must be published in a report produced every six months.

## 1.2.2 Grievance Redress Mechanism

16. The Grievance Redress Mechanism has been designed to be problem-solving mechanism with voluntary good-faith efforts. The Grievance Redress Mechanism is not a substitute for the legal process. The Grievance Redress Mechanism will as far as practicable, try to resolve complaints and/or grievances on terms that are mutually acceptable to all parties. When making a complaint and/or grievance, all parties must act at all times, in good faith and should not attempt to delay and or hinder any mutually acceptable resolution.
17. In order to ensure smooth implementation of the Project and timely and effectively addressing of problems that may be encountered during implementation, a robust Grievance Redress Mechanism, which will enable to the Project Authorities to address the grievances of the stakeholders of the Project has been established.
18. All complaints regarding social and environmental issues can be received either orally (to the field staff), by phone, in complaints box or in writing to the UNDP, NAF or the Construction Contractor. A key part of the grievance redress mechanism is the requirement for the project proponent and construction contractor to maintain a register of complaints received at the respective project site offices. All complainants shall be treated respectfully, politely and with sensitivity. Every possible effort should be made by the project proponent and construction contractor to resolve the issues referred to in the complaint within their purview. However, there may be certain problems that are more complex and cannot be solved through project-level mechanisms. Such grievances will be referred to the Grievance Redress Committee. It would be responsibility of the NAF to solve these issues through a sound / robust process.
19. The Grievance Redress Mechanism has been designed to ensure that an individual and/or group are not financially impacted by the process of making a complaint. The Grievance Redress Mechanism will cover any reasonable costs in engaging a suitably qualified person to assist in the preparation of a legitimate complaint and/or grievance. Where a complaint and/or grievance is seen to be ineligible, the Grievance Redress Mechanism will not cover these costs.
20. Information about the Grievance Redress Mechanism and how to make a complaint must be placed at prominent places for the information of the key stakeholders.
21. The Safeguards officer in the PMU will be designated as the key officer in charge of the Grievance Redress Mechanism. The Terms of Reference for these positions (as amended from time to time) will have the following key responsibilities:
  - a. coordinate formation of Grievance Redress Committees before the commencement of constructions to resolve issues;
  - b. act as the focal point at the PMU on Grievance Redress issues and facilitate the resolution of issues within the PMU;
  - c. create awareness of the Grievance Redress Mechanism amongst all the stakeholders through public awareness campaigns;
  - d. assist in redress of all grievances by coordinating with the concerned parties;
  - e. maintain information on grievances and redress;
  - f. monitor the activities of NAF on grievances issues; and
  - g. prepare the progress for monthly/quarterly reports.
22. A two tier Grievance Redress Mechanism structure has been developed to address all complaints in the project. The first trier redress mechanism involves the receipt of a complaint at the WHAT and/or WHAT level. The stakeholders are informed of various points of making complaints (if any) and the PMU collect the complaints from these points on a regular basis and record them. This is followed by coordinating with the concerned people to redress the Grievances. The Safeguards Officer of the PMU will coordinate the activities at the respective District level to address the grievances and would act as the focal point in this regard. The Capitan as a representative of the lesser councils (*cabildos indigenas*) or in the absence of the Capitan, any officer given the responsibility of this such us the indigenous sheriff would coordinate with the Safeguards and Gender Manager

of the PMU and NAF in redressing the grievances. The designated officer of the Local Authorities is provided with sufficient training in the procedure of redress to continue such systems in future.

23. The complaints can be made orally (to the field staff), by phone, in complaints box or in writing to the UNDP, NAF or the Construction Contractor. Complainants may specifically contact the Safeguards Officer and request confidentiality if they have concerns about retaliation. In cases where confidentiality is requested (i.e. not revealing the complainant's identity to UNDP, NAF and/or the Construction Contractor). In these cases, the Safeguards Officer will review the complaint, discuss it with the complainant, and determine how best to engage project executing entities while preserving confidentiality for the complainant.
24. As soon as a complaint is received, the Safeguards Officer would issue an acknowledgement. The Community Development Officer receiving the complaint should try to obtain relevant basic information regarding the grievance and the complainant and will immediately inform the Safeguards Officer in the PMU.
25. The PMU will maintain a Complaint / Grievance Redress register at the municipality level. Keeping records collected from relevant bodies is the responsibility of PMU.
26. After registering the complaint, the Safeguards Officer will study the complaint made in detail and forward the complaint to the concerned officer with specific dates for replying and redressing the same. The Safeguards Officer will hold meetings with the affected persons / complainant and then attempt to find a solution to the complaint received. If necessary, meetings will be held with the concerned affected persons / complainant and the concerned officer to find a solution to the problem and develop plans to redress the grievance. The deliberations of the meetings and decisions taken are recorded. All meetings in connection with the Grievance Redress Mechanism, including the meetings of the Grievance Redress Committee, must be recorded. The Safeguards Officer for the Grievances Redress Mechanism will be actively involved in all activities.
27. A Community Project Implementation Committee would be formed to oversee the first tier of the Grievance Redress Mechanism. The Community Project Implementation Committee would include:
  - a. The Capitan as a representative of the Lesser Council;
  - b. A representative of women group in the community selected in the community assembly;
  - c. A representative of the local authority at the municipality level – the Major;
  - d. A representative of the “Defensoria del Pueblo”
  - e. A representative of the Environmental Regional Autonomous Corporation; and
  - f. Safeguards Officer PMU.
28. The resolution at the first tier will be normally be completed within 15 working days and the complaint will be notified of the proposed response through a disclosure form. The resolution process should comply with the requirements of the Grievance Redress Mechanism in that it should, as far as practicable, be informal with all parties acting in good faith. Further, the Grievance Redress Mechanism should, as far as practicable, achieve mutually acceptable outcomes for all parties.
29. Should the grievance be not resolved within this period to the satisfaction of the complainant, the grievance will be referred to the next level of Grievance Redress Mechanism. If the social safeguard and gender officer feels that adequate solutions can be established within the next five working days, the officer can decide on retaining the issue at the first level by informing the complainant accordingly. However, if the complainant requests for an immediate transfer to the next level, the matter must be referred to the next tier. In any case, where the issue is not addressed within 20 working days, the matter is referred to the next level.
30. Any grievance related to corruption or any unethical practice should be referred immediately to the The Office of the Attorney General of Colombia (Spanish: Fiscalía General de la Nación; literally "General Prosecutorial Office of the Nation") and the Office of Audit and Investigation within the UNDP in New York.
31. The Grievance Redress Committee formed at every sub-district level would address the grievance in the second tier. A Grievance Redress Committee will be constituted for every Municipality by the circulars issued by the representative of the “Defensoria del Pueblo” who would also be the Chairman of the Committee.
32. The Structure of the committee would be:

- a. A representative of the Municipal Authority – Chairman;
  - b. The Captain;
  - c. A representative of the “Defensoria del Pueblo”
  - d. Representative of the non-government organization/civil society working in the area as nominated by the lesser council – *cabildo indigena*;
  - e. A representative of the Environmental Regional Autonomous Corporation; and
  - f. Safeguards Officer.
33. The Safeguard Officer from the PMU will coordinate with the respective Commissioner of Local Government in getting these Committees constituted for each Province and get the necessary circulars issued in this regard so that they can be convened whenever required.
34. The Terms of Reference for the Grievance Redress Committee are:
- a. providing support to the affected persons in solving their problems;
  - b. prioritize grievances and resolve them at the earliest;
  - c. provide information to the PMU and NAF on serious cases at the earliest opportunity;
  - d. Coordinate with the aggrieved person/group and obtain proper and timely information on the solution worked out for his/her grievance; and
  - e. study the normally occurring grievances and advise PMU, National and District Steering Committee on remedial actions to avoid further occurrences.
35. The Grievance Redress Committee will hold the necessary meetings with the aggrieved party/complainant and the concerned officer and attempt to find a solution acceptable at all levels. The Grievance Redress Committee would record the minutes of the meeting.
36. Grievance Redress Committee will communicate proposed responses to the complainant formally. If the proposed response satisfies the complainant, the response will be implemented and the complaint closed. In cases where a proposed response is unsatisfactory to the complainant, the Grievance Redress Committee may choose to revise the proposed response to meet the complainant’s remaining concerns, or to indicate to the complainant that no other response appears feasible to the Grievance Redress Committee. The complainant may decide to take a legal or any other recourse if s/he is not satisfied with the resolutions due to the deliberations of the three tiers of the grievance redress mechanism.
37. In addition to the project-level and national grievance redress mechanisms, complainants have the option to access UNDP’s Accountability Mechanism, with both compliance and grievance functions. The Social and Environmental Compliance Unit investigates allegations that UNDP’s Standards, screening procedure or other UNDP social and environmental commitments are not being implemented adequately, and that harm may result to people or the environment. The Social and Environmental Compliance Unit is housed in the Office of Audit and Investigations, and managed by a Lead Compliance Officer. A compliance review is available to any community or individual with concerns about the impacts of a UNDP programme or project. The Social and Environmental Compliance Unit is mandated to independently and impartially investigate valid requests from locally impacted people, and to report its findings and recommendations publicly.
38. The Stakeholder Response Mechanism offers locally affected people an opportunity to work with other stakeholders to resolve concerns about the social and environmental impacts of a UNDP project. Stakeholder Response Mechanism is intended to supplement the proactive stakeholder engagement that is required of UNDP and its Implementing Partners throughout the project cycle. Communities and individuals may request a Stakeholder Response Mechanism process when they have used standard channels for project management and quality assurance, and are not satisfied with the response (in this case the project level grievance redress mechanism). When a valid Stakeholder Response Mechanism request is submitted, UNDP focal points at country, regional and headquarters levels will work with concerned stakeholders and Implementing Partners to

address and resolve the concerns. Visit [www.undp.org/secu-srm](http://www.undp.org/secu-srm) for more details. The relevant form is attached at the end of the EMSF.

## Annex 2. Free and prior informed consent (FPIC), Minutes of the consultations, and Commitment Letters from the Indigenous Councils

- Free and prior informed consent (FPIC):

**PROYECTO: "ESCALANDO PRÁCTICAS DE GESTIÓN DEL AGUA RESILIENTES AL CLIMA PARA LAS COMUNIDADES VULNERABLES DE LA MOJANA"**

Consentimiento Libre, Previo e Informado

El Departamento Nacional de Planeación, El Fondo Adaptación y el PNUD solicitaron al Cabildo Indígena Zenú Santo Domingo Vidal, reunirse en con sus representantes en la ciudad de Bogotá el día 24 de noviembre de 2016, con el objetivo dar a conocer el proyecto **ESCALANDO PRÁCTICAS DE GESTIÓN DEL AGUA RESILIENTES AL CLIMA PARA LAS COMUNIDADES VULNERABLES DE LA MOJANA** el cual estaba en proceso de formulación, al momento de la solicitud.

La comunidad y los pueblos indígenas aceptaron participar en la reunión de manera libre y sin presiones, para recibir información sobre el contenido del proyecto y poder recomendar ajustes para incluir la perspectiva propia del pueblo Zenú.

En la reunión se compartió la información sobre el alcance, resultados esperados, los tiempos y las actividades del proyecto, la recopilación de datos sobre las necesidades de la comunidad relacionadas con la adaptación al cambio climático y se recogieron las propuestas de la comunidad para mejorar el proyecto. El representante del Consejo Mayor del pueblo Zenú tuvo la oportunidad de presentar sus ideas y preocupaciones sobre el proyecto propuesto en un foro abierto, así como la de formular propuestas y alternativas para que el proyecto respete los usos y costumbres del pueblo Zenú y contribuya a mejorar sus condiciones de vida, de manera que el proyecto incluya sus propuestas y sea aceptado por la comunidad.

Fecha 23.11.2016

En el Municipio de SAN MARCO SUAREZ

Nombre del Cabildo Santo Domingo Vidal

En la Comunidad de Santo Domingo Vidal

Firmado por Liliosawelaco DH (Nombre y Cargo). Capitán

**PROYECTO: "ESCALANDO PRÁCTICAS DE GESTIÓN DEL AGUA RESILIENTES AL CLIMA PARA LAS COMUNIDADES VULNERABLES DE LA MOJANA"**

Consentimiento Libre, Previo e Informado

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Fecha 23/11/2016

En el Municipio de San Nicolás

Nombre del Cabildo Margarita

En la Comunidad de Vesedra, Ch. Horno

Firmado por Alc. Blas de la Cruz (Nombre y Cargo). Gobernador

**PROYECTO: "ESCALANDO PRÁCTICAS DE GESTIÓN DEL AGUA RESILIENTES AL CLIMA PARA LAS COMUNIDADES VULNERABLES DE LA MOJANA"**

Consentimiento Libre, Previo e Informado

El Departamento Nacional de Planeación, El Fondo Adaptación y el PNUD solicitaron al Cabildo Indígena Zenú Aguas Frías Cayo de la Cruz, reunirse en con sus representantes en la ciudad de Bogotá el día 24 de noviembre de 2016, con el objetivo dar a conocer el proyecto **ESCALANDO PRÁCTICAS DE GESTIÓN DEL AGUA RESILIENTES AL CLIMA PARA LAS COMUNIDADES VULNERABLES DE LA MOJANA** el cual estaba en proceso de formulación, al momento de la solicitud.

La comunidad y los pueblos indígenas aceptaron participar en la reunión de manera libre y sin presiones, para recibir información sobre el contenido del proyecto y poder recomendar ajustes para incluir la perspectiva propia del pueblo Zenú.

En la reunión se compartió la información sobre el alcance, resultados esperados, los tiempos y las actividades del proyecto, la recopilación de datos sobre las necesidades de la comunidad relacionadas con la adaptación al cambio climático y se recogieron las propuestas de la comunidad para mejorar el proyecto. El representante del Consejo Mayor del pueblo Zenú tuvo la oportunidad de presentar sus ideas y preocupaciones sobre el proyecto propuesto en un foro abierto, así como la de formular propuestas y alternativas para que el proyecto respete los usos y costumbres del pueblo Zenú y contribuya a mejorar sus condiciones de vida, de manera que el proyecto incluya sus propuestas y sea aceptado por la comunidad.

Fecha 25-11-2016

En el Municipio de San Marcos Sucre

Nombre del Cabildo Cabildo indígena Aguas Frías Cayo de la Cruz

En la Comunidad de AGUA FRÍA Cayo de la Cruz.

Firmado por Binson Aleu (Nombre y Cargo). Cap. Jun.

PROYECTO: "ESCALANDO PRÁCTICAS DE GESTIÓN DEL AGUA RESILIENTES AL CLIMA PARA LAS COMUNIDADES VULNERABLES DE LA MOJANA"

Consentimiento Libre, Previo e Informado

El Departamento Nacional de Planeación, El Fondo Adaptación y el PNUD solicitaron al Consejo Mayor del pueblo Zenú, reunirse en con sus representantes en la ciudad de Bogotá el día 24 de noviembre de 2016, con el objetivo dar a conocer el proyecto **ESCALANDO PRÁCTICAS DE GESTIÓN DEL AGUA RESILIENTES AL CLIMA PARA LAS COMUNIDADES VULNERABLES DE LA MOJANA** el cual estaba en proceso de formulación, al momento de la solicitud.

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En la reunión se compartió la información sobre el alcance, resultados esperados, los tiempos y las actividades del proyecto, la recopilación de datos sobre las necesidades de la comunidad relacionadas con la adaptación al cambio climático y se recogieron las propuestas de la comunidad para mejorar el proyecto. El representante del Consejo Mayor del pueblo Zenú tuvo la oportunidad de presentar sus ideas y preocupaciones sobre el proyecto propuesto en un foro abierto, así como la de formular propuestas y alternativas para que el proyecto respete los usos y costumbres del pueblo Zenú y contribuya a mejorar sus condiciones de vida, de manera que el proyecto incluya sus propuestas y sea aceptado por la comunidad.

Fecha 24/11/2016

En el Municipio de San Benito Abad - Sucre

Nombre del Cabildo Caño Viejo - Cuina

En la Comunidad de Cuina

Firmado por DEIVIS SILVA (Nombre y Cargo).  
Capitan menor

**PROYECTO: "ESCALANDO PRÁCTICAS DE GESTIÓN DEL AGUA RESILIENTES AL CLIMA PARA LAS COMUNIDADES VULNERABLES DE LA MOJANA"**

Consentimiento Libre, Previo e Informado

El Departamento Nacional de Planeación, El Fondo Adaptación y el PNUD solicitaron al Consejo Mayor del pueblo Zenú, reunirse en con sus representantes en la ciudad de Bogotá el día 24 de noviembre de 2016, con el objetivo dar a conocer el proyecto **ESCALANDO PRÁCTICAS DE GESTIÓN DEL AGUA RESILIENTES AL CLIMA PARA LAS COMUNIDADES VULNERABLES DE LA MOJANA** el cual estaba en proceso de formulación, al momento de la solicitud.

La comunidad y los pueblos indígenas aceptaron participar en la reunión de manera libre y sin presiones, para recibir información sobre el contenido del proyecto y poder recomendar ajustes para incluir la perspectiva propia del pueblo Zenú.

En la reunión se compartió la información sobre el alcance, resultados esperados, los tiempos y las actividades del proyecto, la recopilación de datos sobre las necesidades de la comunidad relacionadas con la adaptación al cambio climático y se recogieron las propuestas de la comunidad para mejorar el proyecto. El representante del Consejo Mayor del pueblo Zenú tuvo la oportunidad de presentar sus ideas y preocupaciones sobre el proyecto propuesto en un foro abierto, así como la de formular propuestas y alternativas para que el proyecto respete los usos y costumbres del pueblo Zenú y contribuya a mejorar sus condiciones de vida, de manera que el proyecto incluya sus propuestas y sea aceptado por la comunidad.

Fecha 23/11/2016

En el Municipio de San Marcos Sucre

Nombre del Cabildo Indígena San Jorge Etnia Zenú

En la Comunidad de Corregimiento El Pital

Firmado por

DIANA PATRICIA SUAREZ (Nombre y Cargo).

Capitana menor  
Cabildo indígena

**PROYECTO: "ESCALANDO PRÁCTICAS DE GESTIÓN DEL AGUA RESILIENTES AL CLIMA PARA LAS COMUNIDADES VULNERABLES DE LA MOJANA"**

**Consentimiento Libre, Previo e Informado**

El Departamento Nacional de Planeación, El Fondo Adaptación y el PNUD solicitaron al Concejo Mayor del Pueblo Zenu, reunirse con sus representantes en la ciudad de Bogotá el día 19 de noviembre de 2016, con el objetivo dar a conocer el proyecto **ESCALANDO PRÁCTICAS DE GESTIÓN DEL AGUA RESILIENTES AL CLIMA PARA LAS COMUNIDADES VULNERABLES DE LA MOJANA** el cual estaba en proceso de formulación, al momento de la solicitud.

La comunidad y los pueblos indígenas aceptaron participar en la reunión de manera libre y sin presiones, para recibir información sobre el contenido del proyecto y poder recomendar ajustes para incluir la perspectiva propia del pueblo Zenú.

En la reunión se compartió la información sobre el alcance, resultados esperados, los tiempos y las actividades del proyecto, la recopilación de datos sobre las necesidades de la comunidad relacionadas con la adaptación al cambio climático y se recogieron las propuestas de la comunidad para mejorar el proyecto. El representante del Cabildo TACASUAN del Municipio de San Benito, Sucre, del pueblo Zenú tuvo la oportunidad de presentar sus ideas y preocupaciones sobre el proyecto propuesto en un foro abierto, así como la de formular propuestas y alternativas para que el proyecto respète los usos y costumbres del pueblo Zenú y contribuya a mejorar sus condiciones de vida, de manera que el proyecto incluya sus propuestas y sea aceptado por la comunidad.

Fecha 19 de Noviembre de 2016

En el Municipio de SAN BENITO ABAD, SUCRE

Nombre del Cabildo CABILDO TACASUAN

En la Comunidad de EL LIMON

Firmado por *Francisco Contreras N 6 814 038*  
FRANCISCO CONTRERAS NARVAEZ – CAPITAN DEL CABILDO

**PROYECTO: "ESCALANDO PRÁCTICAS DE GESTIÓN DEL AGUA RESILIENTES AL CLIMA PARA LAS COMUNIDADES VULNERABLES DE LA MOJANA"**

**Consentimiento Libre, Previo e Informado**

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La comunidad y los pueblos indígenas aceptaron participar en la reunión de manera libre y sin presiones, para recibir información sobre el contenido del proyecto y poder recomendar ajustes para incluir la perspectiva propia del pueblo Zenú.

En la reunión se compartió la información sobre el alcance, resultados esperados, los tiempos y las actividades del proyecto, la recopilación de datos sobre las necesidades de la comunidad relacionadas con la adaptación al cambio climático y se recogieron las propuestas de la comunidad para mejorar el proyecto. El representante del Cabildo Jeguita del Municipio de San Benito, Sucre, del pueblo Zenú tuvo la oportunidad de presentar sus ideas y preocupaciones sobre el proyecto propuesto en un foro abierto, así como la de formular propuestas y alternativas para que el proyecto respete los usos y costumbres del pueblo Zenú y contribuya a mejorar sus condiciones de vida, de manera que el proyecto incluya sus propuestas y sea aceptado por la comunidad.

Fecha 19 de Noviembre de 2016

En el Municipio de SAN BENITO ABAD, SUCRE

Nombre del Cabildo CABILDO JEGUITA

En la Comunidad de JEGUA



18858308

Firmado por TOBIS CRUZ SOTELO – CAPITAN DEL CABILDO

- **Minutes of the consultations, and Commitment Letters from the Indigenous Councils**

**Minutes of the process of free, prior and informed meeting about the formulation of the proposal “Integrated management of water resources as a climate change adaptation strategy for the most vulnerable communities in La Mojana”**

**Date and place:** 11/24/2016, UNDP meeting room, Avenida 82 # 10-62, 2<sup>nd</sup> floor

**Duration:** three hours

**Agenda:**

1. Presentation of Attendees.
2. Presentation of the project by the UNDP team.
3. Summary of the prior consultation process carried out with the Zenú people’s indigenous councils in the project area.
4. Recommendations of the delegate of the Zenú People’s High Regional Council.
5. Agreements.

**Content:**

**1. Presentation of Attendees**

The following people attended the meeting:

- Darío Mejía, delegate of the Zenú People’s High Regional Council
- Aníbal Pérez, UNDP consultant
- Diana Díaz, Climate Change Adaptation Project Co-ordinator Mojana – Ministry for the Environment and Sustainable Development (participating by Skype)
- Jessica Zapata, Sustainable Development area assistant
- Claudia Capera, Sustainable Development area consultant
- Milena Bernal, delegate of the Environment and Society NGO, observer organization of the Green Climate Fund in Colombia

**2. Presentation of the project**

The UNDP consultant gives the presentation of the proposal for the project “Integrated management of water resources as a climate change adaptation strategy for the most vulnerable communities in La Mojana”, which will be presented to the Green Climate Fund. It is explained that the project’s objective is “to strengthen the resilience of the vulnerable communities in the La Mojana region to climate variability and risks by means of the integrated management of water resources”, which has the following four outputs:

Output 1: Strengthened understanding of the impact of climate change on water management.

Output 2: Climate change adapted water infrastructure and ecosystem services.

Output 3: A climate change adapted early warning system.

Output 4: Resilient agro-ecosystems to improve livelihoods in the communities.

The actors involved (National Planning Department, Ministry for the Environment and Sustainable Development, National Adaptation Fund, UNDP and the Green Climate Fund), were presented, along with the specific objectives, the central elements of each output and the expected results. It was emphasized that the project aims to increase the resilience of the communities in the face of climate change and variability through the integrated management of water resources in the region.

**3. Summary of the prior consultation process carried out with the Zenú people’s indigenous councils in the project area**

Diana Diaz presents the following summary of the consultations carried out in the Zenú people’s settlements in the project area, explains the methodology used to approach and hold meetings with the indigenous communities of the San Benito Abad and San Marcos municipalities.

The indigenous councils consulted were:

Municipality	Town where they are located	Name of indigenous council	Number of members	Women	Men
San Benito Abad	Rural <i>veredas</i> (regions) in the municipality	Lomas de Palito	105 families (389 people)	203	186
	(Sispataca, El Limón, Villanueva and La Ceiba) Rural <i>veredas</i> in the municipality	Takasuan	383 families (1570 people)	743	827
	<i>Vereda</i> de Jegua	Jeguita	369 families (1367 people)	118	251
	(Zona Rabón, Lomas de San Juan, Guayabal, Cuiva, El cauchal, Las Chispas, Las Delicias) Rural <i>veredas</i> in the municipality	Caño Viejo - Cuiva	20 families (100 people)	DK	DK
San Marcos	<i>Vereda</i> Cayo de la Cruz	Cayo de la Cruz	35 families (140 people)	87	53
	<i>Vereda</i> el Pital	El Pital	64 families (320 people)	120	300

The main results of the prior consultations with the indigenous councils are presented as follows:

- The communities and their respective authorities appeared receptive to the proposal and seemed optimistic; they considered that the project would help with two of their most pressing difficulties: access to potable water and the restoration of their wetlands.
- Regarding the gender-based approach in the prior consultation processes carried out, the importance was stressed of the Zenú women recovering their artisanal culture and strengthening their productive culture related to activities, and it was emphasized that all of this should be accompanied by training processes.
- Improving the water quality was identified as a priority. The indigenous councils reiterated that their livelihoods depend mainly on the ecosystems such as the swamp, the rivers and the streams, and these have been declining as a consequence of extreme climate events.

#### **4. Recommendations for the inclusion of the differential approach with regard to the Zenú people**

The delegate for the Zenú people makes the following recommendations to include the differential approach in the project

1. In Output 1, create an institutional training project for the indigenous communities which makes it possible to educate young people and create a training school for adaptation and new leadership in the community, based on the dialogue of knowledge, and apply their knowledge in the project's development. This training project must be better than workshop-based training; be more systematic in including and promoting the traditional knowledge of the Zenú people; generate capacity in young people, not only in specific technical aspects but also in territorial and environmental management, under a rights approach that contributes to overcoming self-underestimation; and generate adaptation opportunities from and for the community.
2. In Output 2, it is requested that the rainwater harvesting and micro-aqueducts solutions be used to benefit the 9 communities in the project area and ensure their linkage and training, so that the communities may contribute to the program's sustainability.
3. In Output 2, on the restoration of marshes and streams, ensure the participation of indigenous communities and include the use and management of species such as *junco*, *enea* and *totumo*, which are important for both the ecosystems and for the cultural preservation of the Zenú people.
4. In Output 3, ensure that the early warning systems function as a climate observatory, providing timely and appropriate information so that the community can undertake analyses and proposals. This information will improve the execution of the project and ensure the availability and understanding of climate information to aid the decision-making of the indigenous councils and thus facilitate the appropriation by the community, as a basis for the sustainability of the process in the medium and long term.
5. In Output 4, include the adaptation approach in the "Seeds of Life" self-education program promoted by the High Indigenous Council of the Zenú people, which is aimed at the children of the community in which the conservation of the territory and the strengthening of cultural identity are supported.
6. In Outputs 2, 3 and 4, the project should adopt the research-action-participation methodology, so that the contents of Output 1 can be used and applied through the dialogue of knowledge, and the agreements of proposals for technological innovation can be understanding of the ancestral knowledge and the proposals of the inhabitants of La Mojana, both in the recovery of ecosystems and in the management and improvement of adaptive practices in productive activities.

7. Include other species in Output 4, principally maize, cassava and watermelon, crops which form the basis of the Zenú people's diet.
8. In Output 4, create an intercultural team, which is made up of professionals from the project along with elders and/or young people from the community. Working together and exchanging knowledge will make it possible for the changes required for adequate adaptation to be culturally relevant, socially appropriate and allow future children and youth, the sons and daughters of indigenous people, peasants and cattle farmers to be leaders and social advisors for adaptation in the territory.
9. The project should develop a process of organizational consolidation as a central pillar, as this will allow the strengthening of ethnic identity and the understanding of the impacts of climate change, for example in the agricultural calendar, as well as in other traditions and customs, as a basis for adaptation of the Zenú people. It is important to bear this in mind because, although there is not much geographical connection between the different settlements, there will be meetings between the different settlements that will strengthen cultural ties and their identity as a people, which will allow them to live as a culture and this will be the basis of current and future adaptation.
10. It is proposed that the technical assistance teams for the development of the project incorporate the young people that are trained through the development of Output 1 and create a scholarship fund for their own research into adaptation that will contribute to problem solving in the implementation of technological alternatives or members of the community and gather the added value of traditional knowledge on adaptation. A competition will be organized and the results of the most relevant research will be disseminated both in the community and in the whole region; there will also be exchanges of experiences promoting not only local and regional integration between communities but also, at a national level, with other indigenous peoples about their experiences of adaptation.
11. Develop integrated operational management that considers all the Outputs so that the solutions to the water problem and the improvement of the productive systems are directly related to the recovery and protection of the ecosystems. Ensure that there are intercultural teams in the different outputs that link both young people and elders from the Zenú people.

## **5. Agreements**

1. As part of the prior consultation carried out, the UNDP is committed to including the recommendations that arose from the consultation process with the communities as well as the recommendations of the delegate of the Zenú People's High Regional Council.
2. Given that the indigenous councils have considered the project to be both important and positive and have signed letters of support for the project, the delegate of the Zenú People's High Regional Council will inform the Council and the Indigenous Organization of Colombia of the process and commit to handling the letters of support of these two indigenous organizations.
3. The UNDP is committed to informing the delegate of the Zenú People's High Regional Council of progress made in the project's formulation, the project's dates with respect to the Green Climate Fund and whether or not the project has been approved by the afore-mentioned fund.

LISTA DE ASISTENTES A REUNIONES



LUGAR: Bogotá, UNDP      FECHA: 24 / 11 / 2016      HORA: 9:30am  
 TEMA: Presentación programa Mojano - GCF      PRESIDE: Anibal Pérez

N°	NOMBRE	ENTIDAD / MUNICIPIO	CARGO	DEPENDENCIA	TELÉFONO / CELULAR	CORREO ELECTRÓNICO	FIRMA
1	Dario Mejia	C.M.R.P.Z	Cabildo Mayor Municipio de Leguano	Regional	314 5051666	mmejia@unp.org.pe	<i>[Signature]</i>
2	Rocío García	UN-PEHU	Coordinador		313 4211747	andrea.garcia@unp.org	<i>[Signature]</i>
3	CLAUDIA ESPERZA	P.M.U.D.	Asesoría desarrollo sostenible		312 303764	claudia.esperza@unp.org	<i>[Signature]</i>
4	Jessica Zapata J.	PNUP	Prof. monitoreo	Des. Sostenible	3204101157	jessica.zapata@unp.org	<i>[Signature]</i>
5	Milena Bernal P.	Asoc. Ambiente y sociedad	Investigadora	Cambio climático	312 4009338	milena@ambienteysociedad.org.co	<i>[Signature]</i>
6	Anibal Pérez	PNUP-Consultor	Consultor		3015679613	anibal.perez@unp.org	<i>[Signature]</i>
7							
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12							



**ORGANIZACION NACIONAL INDIGENA DE COLOMBIA**  
**ONIC**  
**NIT. 860.521.808-1**

Bogotá, D.C., Noviembre 25 de 2016

Señor:  
**MARTÍN SANTIAGO HERRERO**  
Representante Residente  
UNDP Colombia

**Asunto:** Apoyo al proyecto titulado "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana"

En la Región de la Mojana habita población perteneciente al Pueblo Indígena Zenú organizados en Cabildos Menores que han venido desarrollando su proceso organizativo en medio de un contexto territorial que se ha visto fuertemente afectado por el incremento en la frecuencia e intensidad de eventos climáticos extremos con prolongadas sequías e inundaciones que hacen particularmente vulnerables a los habitantes de esta planicie donde confluyen los principales drenajes de la región interandina de Colombia.

El Cabildo Mayor Regional del pueblo Zenú que es una Organización base de la ONIC ha considerado de mucha relevancia la formulación y gestión del proyecto de la referencia. En tal sentido, la ONIC reconoce la importancia estratégica que tiene para el país que sus comunidades sean más resilientes y cuenten con las condiciones necesarias para adaptarse a los efectos adversos del cambio y la vulnerabilidad climática.

A la ONIC le complace que las comunidades indígenas de la región de La Mojana aprueben la realización del programa, sean parte de las instancias de decisión del mismo y participen activamente durante su implementación. También estamos en la disposición de participar en la instancia colegiada de toma de decisiones que sea generada en el orden nacional durante la implementación de dicho proyecto.

Cordialmente,

**LUIS FERNANDO ARIAS**  
Consejero Mayor  
Organización Nacional Indígena de Colombia - ONIC

**NATIONAL INDIGENOUS ORGANIZATION OF COLOMBIA**  
**ONIC**  
**TIN 860.521.808-1**

Bogotá D.C., November 25<sup>th</sup>, 2016

Mr.:

**MARTIN SANTIAGO HERRERO**

Resident Representative

UNDP Colombia

**Subject:** Support for the project titled “Integrated management of water resources as a climate change adaptation strategy for the most vulnerable communities in La Mojana”.

In the region of La Mojana, there is a population belonging to the Zenú Indigenous People, organized into lesser councils, that has been running its organizational processes amid a territorial situation that has been seriously affected by an increase in the frequency and intensity of extreme climate events, with prolonged droughts and floods that make the inhabitants of this plain – where the main drainage routes of the inter-Andean meet – particularly vulnerable.

The High Regional Council of the Zenú People, an organization based on the ONIC, has considered the formulation and management of the project of reference to be highly relevant. In this regard, the ONIC recognizes the strategic importance for the country of its communities being more resilient and having the necessary conditions to adapt to the adverse effects of climate variability and change.

The ONIC is pleased that the indigenous communities of the La Mojana region will give their approval to the program, form part of its decision-making processes and actively participate during its implementation. We are also willing to participate in the decision-making process that will be generated at a national level during the implementation of the afore-mentioned project.

Yours sincerely,

LUIS FERNANDO ARIAS

Senior Advisor

National Indigenous Organization of Colombia (ONIC)

Calle 12B No. 4-38  
Email: [onic@onic.org.co](mailto:onic@onic.org.co)

Telephone: 284 2168 & 284 6815  
Website: [www.onic.org.co](http://www.onic.org.co)

Fax: 284 3465  
Bogota D.C. Colombia

Acta del proceso de conocimiento, libre, previo e informado para la formulación de la propuesta "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de las comunidades más vulnerables en La Mojana"

Cabildo Agua Fría - Cayo de la Cruz

Fecha: 25 - NOV - 2016

Agenda: Bienvenida, Socialización, Acto de conocimiento y conclusiones

Saludos y presentación de asistentes:

Presentación institucional. Quienes son; PNUD, DNP y FAN:

Presentación de la propuesta: "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana"

Preguntas:

¿Consideran ustedes que este responde a necesidades de la población, relacionadas con los impactos que está generando la variabilidad climática y el cambio climático en la comunidad?

Si

¿De qué manera? están dentro de la acciones de nuestras necesidades de la naturaleza

¿Consideran ustedes que la estrategia presentada en esta propuesta se ajusta a las características culturales de su comunidad?

Si  
¿Porqué? por que todo se trata es en este  
proyecto es de nuestras costumbre

¿Qué estrategia de fortalecimiento de capacidades puede implementar el proyecto que responda a sus características culturales?

nos gustaría que no capacitarán en  
artesania orfalia en aprendizaje  
~~exteri~~ el cena para estudiar mas  
mecanica automatria modisteria reposteria  
y muchas mas el cetera

¿Cuáles son los recursos naturales de los que dependen y como serían afectados por el proyecto?

el primer el agua y la tierra

¿Cuáles son sus recomendaciones a la propuesta para garantizar una mayor inclusión y un enfoque diferencial, que garantice la plena participación de la comunidad?

la responsabilidades de la entidad y la comunidad

Preguntas y comentarios

Recomendaciones:

queremos cumplimiento y responsabilidad de nuestras necesidades

queremos que nos informe si salimos o no si se aprueba el proyecto



**DNP**  
Departamento  
Nacional  
de Pensación

Fondo Adaptación



Presentación y consulta para la formulación de la propuesta: "Manejo Integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana"

Actividad: Socialización Propuesta Fondo Verde del Clima  
Lugar: Cayo de la Cruz - San Marcos  
Fecha: 25-11-16.

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Numero de identificación	Edad	F	M	Telefono	Comunidad/ Organización	Firma
1	Edgar Osorio	1100.085203	25		M	3114396505	Cabildo Agua Fria	Edgar
2	Luz Nery Osorio Pila	34.949356	32	F		3148469419	Cabildo Agua Fria	Luz Nery Osorio Pila
3	Francisco de Paula	1104413886	32		M	3225339964	Cabildo Agua Fria	Francisco de Paula
4	José Gerardo Pila	4439.979	57		M	3215414902	Cabildo Agua Fria	José Gerardo Pila
5	Ramona Pila	50997.744	50	F		3218957059	Cabildo Agua Fria	Ramona Pila
6	Faustina Suarez	34949259	67	F		3116333046	Cabildo Agua Fria	Faustina Suarez
7	Cledis Pila	1104424578	23	F		3233334396	Cabildo Agua Fria	Cledis Pila
8	Nubia Beltrán	34948.084	45	F		312.7262499	Cabildo Agua Fria	Nubia Beltrán
9	José Pila	70.887590	34		M	3127262491	Cabildo Agua Fria	José Pila
10	Miguel P.	99012418880	14		M	32333427590	Cabildo Agua Fria	Miguel Pila
11	Faxidis P	25996.610	39	F		32268585	Cabildo Agua Fria	Faxidis Pila
12	Emidia Olea	110445204	35	F		31355922295	Cabildo Agua Fria	Emidia Olea

Observaciones:



**DNP**  
Departamento  
Nacional  
de Planeación

Fondo Adaptación



Presentación y consulta para formulación de la propuesta: "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana".

Lugar: **Sociedad Pobladora Fondo Verde del Ciénaga**  
Fecha: **Sept-11-2016**

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Numero de identificación	Edad	F	M	Telefono	Comunidad/ Organización	Firma
1	Manuel del campo Pila	10.905.208	64		M	32154902	Cabildo agua fría	Manuel Pila R.
2	Tulio Miguel Pila Pado	1104411913	29		M	3116733046	Cabildo agua fría	Tulio m. Pila Pado
3	Kellys Diana Urzabala	7005.677.494	77		F	32566678	Cabildo agua fría	Kellys Urzabala
4	Yolani's Paternina	106949035	77		F	3216726273	Cabildo agua fría	Yolani's Paternina
5	Dairo olea Pila	1.100-023.496	24		M	3216826273	Cabildo agua fría	Dairo olea Pila
6	Dinny Vega Avilez.	1.005.685.606	14		F	5105966328	Cabildo A.F.	Dinny Vega Avilez.
7	Nucleia Anzu Pila.	10 888 701	32		M	3136777515	Cabildo A.F.	Nucleia Anzu Pila.
8	Ylva Yass de Arman Pila	1104430806	27		F	313512037	Cabildo Agua fría	Nucleia Pila
9	Rosa Hanía Pila.	1005695947	17		F		Cabildo AF	Rosa Hanía
10	Shonora Pila	1.104.404.688	14		F		Cabildo AF	Shonora Pila
11	Neudys Pila	1 104 404 791	13		F		Cabildo AF	Neudys Pila.
12	Enilda Pila	340949340	35		F		Cabildo AF	Enilda Pila.

Observaciones:

Presentación y consulta para la formulación de la propuesta: "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana"

Actividad: **Socialización propuesta Fondo Verde del Clima**  
 Lugar: **Cayo-11 de 2016**  
 Fecha: **29-11-2016**

DATOS DE LOS ASISTENTES

Nº	Nombres y Apellidos	Numero de identificación	Edad	F	M	Telefono	Comunidad/Organización	Firma	
1	Urbano Pila Polo	4.940.083	66		M	3116733046	Cabildo Indígena Agua Fría	urbano Pila	
2	Kaideth Avila S.	110442682	29	F		3116581659	Cabildo A.F.	Kaideth Avila S.	
3	Adelaida Pila	34884.987	55	F		3135666119	Cabildo Agua Fría	Adelaida Pila	
4	Benicio osorio	15152181	60		M	3205435535	Cabildo Agua Fría	Benicio osorio	
5	Norman Osorio Pila	1104406505	30	F		3116857004	Cabildo Agua Fría	Norman Osorio Pila	
6	ALCI OLEA P	78 588 395 42	42		M		Coloiba C	ALCI OLEA P.	
7	CONSUELO AVILA P	34 950254 34	34	F		3207392430	Cabildo Agua Fría	CONSUELO AVILA P.	
8	Yadalis OLEA Pila	1.104.411 765	30	F		3216826275	Cabildo Agua Fría	Yadalis OLEA P.	
9	Yina Pila ariza	1.104.402 225 37	37	F		3218306882	Cabildo Agua Fría	Yina Pila Ariza	
10	Fuis Luz Pila F	1104426117	23	F		3218253863	Cabildo Agua Fría	Fuis Luz Pila	
11									
12	Observaciones:								

Acta del proceso de conocimiento, libre, previo e informado para la formulación de la propuesta "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de las comunidades más vulnerables en La Mojana"

Cabildo de Cuiva.

Fecha: 24- NOV- 2016

Agenda: Bienvenida, presentación, socialización de la propuesta, acta de proceso de conocimiento y expresión de compromiso.

Saludos y presentación de asistentes:

Presentación institucional. Quienes son; PNUD, DNP y FAN:

Presentación de la propuesta: "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana"

Preguntas:

¿Consideran ustedes que este responde a necesidades de la población, relacionadas con los impactos que está generando la variabilidad climática y el cambio climático en la comunidad?

¿De qué manera?

Bl. D. Pongu. Responde. Me responde. Me responde. Me responde. Me responde. Comunidad

¿Consideran ustedes que la estrategia presentada en esta propuesta se ajusta a las características culturales de su comunidad?

¿Porqué? : Sí

R/ Por que nos permite con trabajar  
nuestros valores sociales y culturales

¿Qué estrategia de fortalecimiento de capacidades puede implementar el proyecto que responda a sus características culturales?

R. Que desarrollen capacitacion  
tanto la construcción de nuestros  
valores y costumbres

¿Cuáles son los recursos naturales de los que dependen y como serían afectados por el proyecto?

R/ Nuestros principales recursos son  
nuestros rios, riberas y sus  
caños;  
no existiría ninguna afectación

¿Cuáles son sus recomendaciones a la propuesta para garantizar una mayor inclusión y un enfoque diferencial, que garantice la plena participación de la comunidad?

Preguntas y comentarios

R/ Dem. es lo q. Proyecto se va a lograr  
en gran parte a estos. Comunidades  
indígenas La. Cool. Romal. Comunidades  
especiales

Recomendaciones:

Roberto Quiroga secretario de la Asociación Indígena  
Jorge Silba Vicepresidente de la Asociación Indígena

DEIVIS SILVA capitán mayor cavildo  
caño Viejo Cuvira

(CERTIFIED TRANSLATION OF A DOCUMENT WRITTEN IN SPANISH)

Minute of the free, prior, and informed knowledge process for the formulation of the proposal “Comprehensive management of water resources as a climate change adaptation strategy for the most vulnerable communities of *La Mojana*”

(Handwritten text) *Cuiva* Council

Date: (Handwritten text) November 24<sup>th</sup>, 2016

Agenda: (Handwritten text) Reception, introduction, presentation of proposal, preparation of knowledge process minute, and expression of commitment.

Greetings and introduction of attendees:

Institutional presentation: Who are UNDP, DNP (Acronym in Spanish: National Planning Department) and FAN (Acronym in Spanish: National Adaptation Fund):

Presentation of proposal: “Comprehensive management of water resources as a climate change adaptation strategy for the most vulnerable communities of *La Mojana*”

Questions:

Do you think that the proposal meets the needs of the population regarding the impacts generated by climate variability and climate change in the community?

(Handwritten text) Yes.

How?

(Handwritten text) Response: Because it addresses ... (illegible text) ... Community.

Do you think that the strategy presented in the proposal is adjusted to the cultural traits of your community?

(Handwritten text) Yes,

Why?

(Handwritten text) Response: Because it allows us to preserve our social and cultural legacy.

Which capacity strengthening strategy may be implemented as part of the project in response to your cultural traits?

(Handwritten text) Response: To receive training with the purpose of preserving our customs and traditions.

Which are the natural resources you depend on the most and how would they be impacted by the project?

(Handwritten text) Response: Our main resources are rivers, swamps and creeks.

There wouldn't be any impact.

Which are your recommendations to the proposal in order to guarantee greater inclusion and a differential approach and thus ensure the full involvement of the community?

Questions and remarks

(Handwritten text) Response: These projects should mostly support indigenous communities who are special communities.

Recommendations:


(Handwritten text)

(Signed) Ruben Oviedo Secretary of the Indigenous Association

(Signed) Jorge Silva Vice-president of the Indigenous Association

(Signed) Deivis Silva Junior Chief of the of *Caño Viejo – Cuiva* Council

(I, SANDRA MILENA PINILLA BARRERO, Sworn Certified Translator and Interpreter for the English-Spanish, Spanish-English languages, appointed pursuant to Competence Certificate No. 0324 by the National University of Colombia and duly registered before the Ministry of Foreign Affairs, do hereby certify that the above translation fully corresponds to the original document written in Spanish. In witness whereof, I have hereunto set my hand and affixed my Official Seal on this 30th day of November, 2016. Translator's Contact Information: (571) 6135182, (57) 3002315608, Calle 116 # 71 A 25 Of. 202, traducciones@angloservicios.com, www.angloservicios.com)

  
Sandra Milena Pinilla Barrero  
Traductora e Intérprete Oficial  
Certificado de Idoneidad No. 0324  
Universidad Nacional de Colombia

Cabildo Cuiva, 24-NOV-2016

Señor,  
Martín Santiago Herrero  
Representante Residente  
UNDP Colombia

Asunto: Expresión de compromiso al proyecto del Fondo Verde del Clima titulado "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana"

Reconociendo la importancia estratégica que tiene para el país que sus comunidades sean más resilientes y cuenten con las condiciones necesarias para adaptarse a los efectos adversos del cambio y la vulnerabilidad climática, la Comunidad del Cabildo de Cuiva se complace en apoyar la propuesta programática integral que busca mejorar el manejo del recurso hídrico para incrementar la resiliencia climática de las comunidades vulnerables en La Mojana.

La Región de la Mojana se ha visto fuertemente afectada por el incremento en la frecuencia e intensidad de eventos extremos concluyendo en prolongadas sequías e inundaciones que hacen particularmente vulnerables a los habitantes de esta planicie inundable donde confluyen los principales drenajes de la región interandina de Colombia.

Por su parte, ella Cabildo de Cuiva se encarga de apoyar y participar en la propuesta para el GCF. En relación con lo anterior, la Comunidad del Cabildo de Cuiva considera fundamental la puesta en marcha del proyecto que contribuiría con el propósito de tener una sociedad sustentable y con mayor capacidad de adaptarse al cambio global, objetivos que son de alta prioridad en la gestión adelantada por esta institución. Adicionalmente, nos complace saber que las medidas propuestas por el proyecto promueven un enfoque integral en el manejo de un recurso esencial para la vida como es el agua y propenden por crear las condiciones necesarias para hacerlas sostenibles en el tiempo.

Quisiéramos agradecer al Fondo Verde del Clima por la oportunidad de financiar los vacíos actuales que tiene Colombia para implementar las medidas de adaptaciones que permitirán salvar vidas y mejorar los medios de vida de las poblaciones más vulnerables del país. Especialmente de la población vulnerable dependiente de sectores sensibles al clima como Agricultura, medio ambiente, ganadería, prácticas culturales entre otros.

Cordialmente,

DEIVIS SILVA  
Nombre Completo: Deivis Silva  
Entidad Cabildo de Cuiva.



**DNP** Departamento Nacional de Planeación

Fondo Adaptación



Presentación y consulta para la formulación de la propuesta: "Manejo Integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana"

Actividad: Socialización Propuesta Fondo Verde del Cauca  
 Lugar: Cauca - San Benito Abad.  
 Fecha: 24-11-2016

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Numero de Identificación	Edad	F	M	Telefono	Comunidad/ Organización	Firma	
1	Derius Silva	1104409479	29		<input checked="" type="checkbox"/>	3218071070	Cabildo Caño Viejo Cauca	Derius Silva	
2	Jorge Miguel Silva	3942187	58		<input checked="" type="checkbox"/>	3126852747	Cabildo Caño Viejo Cauca	Jorge Silva	
3	Rubén Darío Quiédo	10881709	43		<input checked="" type="checkbox"/>	3145105171	Cabildo Caño Viejo Cauca	Rubén Quiédo	
4									
5									
6									
7									
8									
9									
10									
11									
12	Observaciones:								

Acta del proceso de conocimiento, libre, previo e informado para la formulación de la propuesta "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de las comunidades más vulnerables en La Mojana"

Cabildo Mayor El Pital.

Fecha: 23 - NOV - 2016

Agenda: Bienvenida, presentación, socialización de propuesta al GCF  
acta de proceso de conocimiento, expresión de compromiso

Saludos y presentación de asistentes:

Presentación institucional. Quiénes son; PNUD, DNP y FAN:

Presentación de la propuesta: "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana"

Preguntas:

¿Consideran ustedes que este responde a necesidades de la población, relacionadas con los impactos que está generando la variabilidad climática y el cambio climático en la comunidad?

Si responde.

¿De qué manera?

Hemos sido afectados por fenómenos de Variabilidad Climática (exceso de lluvia y de Verano), que afecta principalmente los cultivos y animales

¿Consideran ustedes que la estrategia presentada en esta propuesta se ajusta a las características culturales de su comunidad?

Si

¿Porqué?

Nosotros Como Comunidad Somos Vecedores y protectores de los recursos naturales

¿Qué estrategia de fortalecimiento de capacidades puede implementar el proyecto que responda a sus características culturales?

Apoyo en cultivos de Pancoger - capacitaciones  
No hay tierra para trabajar, - Apoyo en tierras  
- capacitaciones y talleres para manejo y procesamiento de fibras y artesanías

¿Cuáles son los recursos naturales de los que dependen y como serían afectados por el proyecto?

Afectados Positivamente.

¿Cuáles son sus recomendaciones a la propuesta para garantizar una mayor inclusión y un enfoque diferencial, que garantice la plena participación de la comunidad?

Preguntas y comentarios

- Visitas periódicas
- Asistencia
- > Apoyo en la consecución de tierras para trabajar

Recomendaciones:

- > Asesoría Constante
  - > Presencia Permanente.
  - > Información sobre la aprobación del proyecto.
- o/g a u t e t

(CERTIFIED TRANSLATION OF A DOCUMENT WRITTEN IN SPANISH)

Minute of the free, prior, and informed knowledge process for the formulation of the proposal “Comprehensive management of water resources as a climate change adaptation strategy for the most vulnerable communities of *La Mojana*”

(Handwritten text) *El Pital* Higher Council

Date: (Handwritten text) November 23<sup>rd</sup>, 2016

Agenda: (Handwritten text) Reception, introduction, presentation of proposal to GCF (Acronym: Green Climate Fund), preparation of knowledge process minute, and expression of commitment.

Greetings and introduction of attendees:

Institutional presentation: Who are UNDP, DNP (Acronym in Spanish: National Planning Department) and FAN (Acronym in Spanish: National Adaptation Fund):

Presentation of proposal: “Comprehensive management of water resources as a climate change adaptation strategy for the most vulnerable communities of *La Mojana*”

Questions:

Do you think that the proposal meets the needs of the population regarding the impacts generated by climate variability and climate change in the community?

(Handwritten text) Yes.

How?


(Handwritten text) We have been impacted by climate variability phenomena (excessive rain and severe droughts), which mainly affect crops and livestock.

Do you think that the strategy presented in the proposal is adjusted to the cultural traits of your community?

(Handwritten text) Yes.

Why?

(Handwritten text) We, as a community, are overseers and protectors of our natural resources.

  
Sandra Milena Pinilla Barrero  
Traductora e Intérprete Oficial  
Certificado de Idoneidad No. 0324  
Universidad Nacional de Colombia

Which capacity strengthening strategy may be implemented as part of the project in response to your cultural traits?

(Handwritten text)

Support for subsistence crops – training

We do not have land to work on – Support on Land

- Training and workshops on fiber and handicraft handling and processing

Which are the natural resources you depend on the most and how would they be impacted by the project?

(Handwritten text) They would have a positive impact.

Which are your recommendations to the proposal in order to guarantee greater inclusion and a differential approach and thus ensure the full involvement of the community?

Questions and remarks

(Handwritten text)

- Periodic visits
- Assistance
- Support on the procurement of land to work on


Recommendations:

(Handwritten text)

- Continuous support
- Constant presence
- Provide information about project approval

(Signed) Olga Utet

(I, SANDRA MILENA PINILLA BARRERO, Sworn Certified Translator and Interpreter for the English-Spanish, Spanish-English languages, appointed pursuant to Competence Certificate No. 0324 by the National University of Colombia and duly registered before the Ministry of Foreign Affairs, do hereby certify that the above translation fully corresponds to the original document written in Spanish. In witness whereof, I have hereunto set my hand and affixed my Official Seal on this 30th day of November, 2016. Translator's Contact Information: (571) 6135182, (57) 3002315608, Calle 116 # 71 A 25 Of. 202, traducciones@angloservicios.com, www.angloservicios.com)



Sandra Milena Pinilla Barrero  
Traductora e Intérprete Oficial  
Certificado de Idoneidad No. 0324  
Universidad Nacional de Colombia



**DNP** Departamento Nacional de Planeación

Fondo Adaptación

**TOPOS POR UN NUEVO PAÍS** con visión estratégica



Asociación de personas con discapacidad

Actividad: Socialización Propuesta Foro de Vereda de la Clínica  
 Lugar: El Pital - San Marcos  
 Fecha: 23-11-16

Presentación y consulta para la formulación de la propuesta: "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana"

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Numero de identificación	Edad	F	M	Telefono	Comunidad/ Organización	Firma
1	Dary Dary Carrascal	11044116764	46	X		3122083591	Cabildo Mayor El Pital	Dary Dary
2	Darwin Osorio	18405130	64			3124020288	Cabildo Mayor El Pital	Darwin
3	Naudith Jimenez	7005678695	20			322509748	Cabildo Mayor El Pital	Naudith Jimenez
4	Yolanda Florez	1.005616.848	28			3205824098	Cabildo Mayor El Pital	Yolanda Florez
5	Sulio Enriquez	1.0878796	58				Cabildo Mayor El Pital	Sulio Enriquez
6	Petrona Marquez	25.80744050	50			3205698824	Cabildo Mayor El Pital	Petrona Marquez
7	Marta Vargas	18705138	59			3215438882	Cabildo Mayor El Pital	Marta Vargas
8	Julith Tesada	170.087184	38				Cabildo Mayor El Pital	Julith Tesada
9	UBAL DOLOPEZ	1087824842	42				Cabildo Mayor El Pital	UBAL DOLOPEZ
10	Enrique MUEI	3.957235				321530190	Cabildo Mayor El Pital	Enrique MUEI
11	Antonia Espitia	34950716					Cabildo Mayor El Pital	Antonia Espitia
12	WELSY LZ	34949889					Cabildo Mayor El Pital	WELSY LZ

Observaciones:



**DNP** Departamento Nacional de Planeación

Fondo Adaptación



Presentación y consulta para la formulación de la propuesta: "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana"

Actividad: Socialización  
 Lugar: El Pital-San Marcos  
 Fecha: 23-11-16

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Numero de identificación	Edad	F	M	Telefono	Comunidad/Organización	Firma
1	Luzmila Ortega		52	✓			Cabildo mayor El Pital	
2	Harlys Diaz	34945692	41	✓		3136730222	Cabildo Mayor El Pital	Harlys Diaz
3	Claudia Osorio	34949884	42	✓		311-2172797	Cabildo Mayor El Pital	Claudia Osorio
4	Yoley Areieta	1.005.676.903	33	✓			Cabildo Mayor El Pital	
5	Kellis Caldera	110251834	29	✓		3215037972	Cabildo Mayor El Pital	Kellis Caldera
6	Eleida Severiche	3494247056				3226957292	Cabildo Mayor El Pital	Eleida Severiche
7	Elva Elvira Muniz	23098989	67	✓		314539255	Cabildo Mayor El Pital	Elva Elvira Muniz
8	Carlos Bohorquez	10.878.495	52		✓	3925124617	Cabildo Mayor El Pital	Carlos Bohorquez
9	Julio Cobarrero	3958928	64		✓	316843838	Cabildo Mayor El Pital	Julio Cobarrero
10	Jaidery Vargas	1005684770	70		✓		Cabildo Mayor El Pital	Jaidery Vargas
11	Blanca Ortega	349466946	46	✓		3105859300	Cabildo Mayor El Pital	Blanca Ortega
12	Dani Baldevin	34950275	38	✓		3128184945	Cabildo Mayor El Pital	Dani Baldevin

Observaciones:



Departamento Nacional de Planeación

Fondo Adaptación



Presentación y consulta para la formulación de la propuesta: "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana".

Actividad: Socialización Propuesta fondo Verde del Clima.  
 Lugar: El Dital - San Marcos  
 Fecha: 23-11-2016.

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Numero de Identificación	Edad	F	M	Telefono	Comunidad/Organización	Firma
1	inoliva R-Osorio	3.102632	67	✓			Cabildo Mayor El Dital	
2	EVeride Osorio	23.100.382	66	✓			Cabildo Mayor El Dital	
3	Jaidi A. Marque.	1.104422116	19	✓		20 31267771	Cabildo Mayor El Dital	Jaidi Osorio
4	Angela Villodiego	1104421987	24	✓		310399 3004.	Cabildo Mayor El Dital	Angela Villodiego
5	Carbota Orteya.	34.943555	50	✓		313507 0649.	Cabildo Mayor El Dital	
6	Luz Carina Caballo	1104404945	34	✓		321574 2074.	Cabildo Mayor El Dital	Luz Karime Caballo
7	Ano Cuadrado	34941918.	52	✓		312-612-99-64	Cabildo Mayor El Dital	Ana Escobedo
8	Kelly faman jafar.	33.059.4144	39	✓			Cabildo Mayor El Dital	Kelly faman jafar.
9	Arustorgo osorio	34942266	45	✓		3107433165	Cabildo Mayor El Dital	Arustorgo osorio
10	Alvaro caldara	13.10120	62		✓	3215037594	Cabildo Mayor El Dital	Alvaro caldara
11	Higuel Villadiego	18705134	57		✓		Cabildo Mayor El Dital	
12	DORAIRA ORTEGA		60	✓		3114248398	Cabildo Mayor El Dital	

Observaciones:

San Benito Abad, 19 de noviembre de 2016

Acta del proceso de conocimiento, libre, previo e informado para la formulación de la propuesta "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de las comunidades más vulnerables en La Mojana"

Agenda:

**Saludos y presentación de asistentes:** Se da inicio a la reunión con la presentación de cada uno de los asistentes de los dos cabildos indígenas convocados (Jeguita y Takasuan), seguido a esto se realiza la presentación institucional y personal a cargo de Diana Díaz, coordinadora del proyecto que se está ejecutando y Samara Vélez, profesional social del mismo.

Se explica la propuesta de proyecto "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático en las comunidades más vulnerables de la región de La Mojana". Se dan a conocer los actores involucrados en el mismo (DNP, FNA, entre otros) y el papel del PNUD como ente de cooperación multilateral y apoyo al gobierno y a la sociedad civil; se informa que el proyecto se implementaría en los once municipios de esta región en las zonas rurales y que su objetivo principal es mejorar la gestión del recurso hídrico. Se aclara que el proyecto está en etapa de formulación.

Preguntas:

1. ¿Consideran ustedes que este proyecto responde a necesidades de la población, relacionadas con los impactos que está generando la variabilidad y el cambio climático en la comunidad?

Los asistentes en general manifiestan estar conformes con la propuesta presentada, indican que es pertinente la aplicación de este proyecto en la zona ya que actualmente no se está ejecutando ninguno de este tipo y es acorde a las dinámicas climáticas de la región.

Hacen énfasis en indicar que aunque cuentan con un sistema de acueducto en la comunidad, la calidad del agua es deficiente ya que solo se le realiza mantenimiento a éste dos veces al año y hay que pagar para utilizar el servicio. Adicional a esto indican que en época de lluvias y sequía se dificulta el acceso a este recurso. Enfatizan en que la implementación de este proyecto contribuiría a mejorar algunas de éstas problemáticas.

2. ¿Consideran ustedes que la estrategia presentada en esta propuesta se ajusta a las características culturales de su comunidad?

La comunidad asistente confirma que la propuesta se ajusta a sus características culturales, ya que no pretende alterar ni vulnerar las dinámicas de sus raíces étnicas, consideran que el diseño de la propuesta es acorde a sus necesidades.

3. ¿Qué estrategia de fortalecimiento de capacidades puede implementar el proyecto que responda a sus características culturales?
- Empoderamiento de las mujeres a través de programas de capacitación en temas agroecológicos y artesanales.
  - Implementación de vías. (Se explica la posición de PNUD)
  - Apoyo a pequeños agricultores y ganaderos referente a capacitaciones
  - Capacitación a la comunidad en temas de organización comunitarias

4. ¿Cuáles son los recursos naturales de los que dependen y como serían afectados por el proyecto?

Los cabildos presentes aclaran que dependen principalmente de ecosistemas, como la ciénaga, los ríos y los caños, sugieren que se recuperen algunos de éstos que se han ido perdiendo por las condiciones climáticas extremas; adicional a esto indican que también dependen de los cultivos tales como el maíz, pepino, la yuca, el arroz y la patilla. Proponen que se verían afectados positivamente con la implementación de este proyecto.

5. ¿Cuáles son sus recomendaciones a la propuesta para garantizar una mayor inclusión y un enfoque diferencias, que garantice la plena participación de la comunidad?

Dentro de las recomendaciones de los asistentes, se resalta que indican que es importante a la hora de implementar el proyecto, descentralizar la comunidad, es decir, lograr una autonomía frente a las entidades estatales para evitar inconvenientes futuros.

También solicitan que se les mantenga informados de los avances del proyecto, independientemente que sea aprobado o no.

Aclaran que en la reunión no estaban todos los asistentes de la comunidad por temas de logística y transporte.

En constancia firma:



Capitán Cabildo Jeguita

San Benito Abad, 19 de noviembre de 2016

Acta del proceso de conocimiento, libre, previo e informado para la formulación de la propuesta "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de las comunidades más vulnerables en La Mojana"

Agenda:

**Saludos y presentación de asistentes:** Se da inicio a la reunión con la presentación de cada uno de los asistentes de los dos cabildos indígenas convocados (Jeguita y Takasuan), seguido a esto se realiza la presentación institucional y personal a cargo de Diana Díaz, coordinadora del proyecto que se está ejecutando y Samara Vélez, profesional social del mismo.

Se explica la propuesta de proyecto "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático en las comunidades más vulnerables de la región de La Mojana". Se dan a conocer los actores involucrados en el mismo (DNP, FNA, entre otros) y el papel del PNUD como ente de cooperación multilateral y apoyo al gobierno y a la sociedad civil; se informa que el proyecto se implementaría en los once municipios de esta región en las zonas rurales y que su objetivo principal es mejorar la gestión del recurso hídrico. Se aclara que el proyecto está en etapa de formulación.

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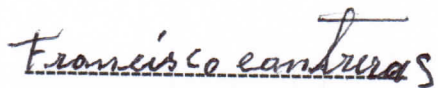
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También solicitan que se les mantenga informados de los avances del proyecto, independientemente que sea aprobado o no.

Aclaran que en la reunión no estaban todos los asistentes de la comunidad por temas de logística y transporte.

En constancia firma:

  
Francisco Cantor  
Capitán Cabildo Tacasuan

San Benito Abad, November 19<sup>th</sup>, 2016

Minute of the free, prior, and informed knowledge process for the formulation of the proposal “Comprehensive management of water resources as a climate change adaptation strategy for the most vulnerable communities of *La Mojana*”

Agenda:

**Greetings and introduction of attendees:** The meeting is started by introducing each of the attendees summoned from two indigenous councils (*Jeguita* and *Takasuan*). Next, the institutional and personal introduction is conducted by Diana Díaz, coordinator of the project being executed, and by Samara Vélez, a social worker working in the same project.

The proposal “Comprehensive management of water resources as a climate change adaptation strategy for the most vulnerable communities of *La Mojana*” is then explained. Stakeholders involved in the project (DNP (Acronym in Spanish: National Planning Department) and FAN (Acronym in Spanish: National Adaptation Fund), among others) are introduced, and the role of UNDP as a multilateral cooperation entity in support of the government and the civil society is explained as well. It is thereupon informed that the project would be implemented in the rural areas of the eleven municipalities of this region and its main objective is to improve the management of water resources. Additionally, it is clarified that the project is currently at its formulation stage.

Questions:

1. Do you think that the proposal meets the needs of the population regarding the impacts generated by climate variability and climate change in the community?

The attendees express their general conformity with the proposal presented; they also point out the necessity of implementing this project in the area since no other of the same nature, addressing the climate dynamics of the region, is being executed at the moment.

The attendees stress the importance of noting that even though they already have a water supply system within the community, the quality of the water is very poor since maintenance works on the system are performed only twice a year, and they are required to pay in order to make use of this service.



Sandra Milena Pinilla Barrero  
Traductora e Intérprete Oficial  
Certificado de Idoneidad No. 0324  
Universidad Nacional de Colombia

In addition, they indicate that during the rainy and dry seasons the access to this resource becomes difficult. They emphasize the fact that implementing this project would contribute to the improvement of such issues.

2. Do you think that the strategy presented in the proposal is adjusted to the cultural traits of your community?

The community states that the proposal is adjusted to their cultural traits because it does not intend to alter or damage the dynamics of their ethnic roots; they think that the proposal design is consistent with their needs.

3. Which capacity strengthening strategy may be implemented as part of the project in response to your cultural traits?

- Women's empowerment through training programs in agro-ecological and handicraft topics.
- Road construction. (UNDP's position is explained)
- Support to small farmers and cattle breeders in terms of training
- Training on community organization issues

4. Which are the natural resources you depend on the most and how would they be impacted by the project?

The councils present make clear that they mostly depend on ecosystems such as swamps, rivers, and creeks; therefore, it is suggested to recover some of them, which are being lost due to extreme climate conditions. They also mention they depend on corn, cucumber, yucca, rice and watermelon crops. They bring forward the fact that they would be positively impacted by the implementation of this project.

5. Which are your recommendations to the proposal in order to guarantee greater inclusion and a differential approach and thus ensure the full involvement of the community?

Among the recommendations of the attendees, it is worth mentioning the suggestion of decentralizing the community, that is, to achieve autonomy before state entities at the time of implementing the project in order to avoid future conflicts.

Also, they request to be informed about the progress of the project, regardless of whether or not it is approved.



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Certificado de Idoneidad No. 0324  
Universidad Nacional de Colombia

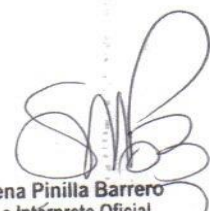
They explain that not all of the community attendees were present due to logistics and transportation issues.

In witness whereof, it is signed by:

(Signed)

Chief of *Jeguita* Council

(I, SANDRA MILENA PINILLA BARRERO, Sworn Certified Translator and Interpreter for the English-Spanish, Spanish-English languages, appointed pursuant to Competence Certificate No. 0324 by the National University of Colombia and duly registered before the Ministry of Foreign Affairs, do hereby certify that the above translation fully corresponds to the original document written in Spanish. In witness whereof, I have hereunto set my hand and affixed my Official Seal on this 30th day of November, 2016. Translator's Contact Information: (571) 6135182, (57) 3002315608, Calle 116 # 71 A 25 Of. 202, traducciones@angloservicios.com, www.angloservicios.com)



Sandra Milena Pinilla Barrero  
Traductora e Intérprete Oficial  
Certificado de Idoneidad No. 0324  
Universidad Nacional de Colombia

*San Benito Abad*, November 19<sup>th</sup>, 2016

Minute of the free, prior, and informed knowledge process for the formulation of the proposal “Comprehensive management of water resources as a climate change adaptation strategy for the most vulnerable communities of *La Mojana*”

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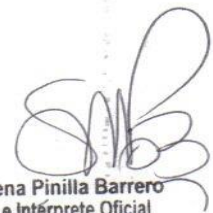
In witness whereof, it is signed by:

(Signed)

Francisco Contreras

Chief of *Tacasuan* Council

(I, SANDRA MILENA PINILLA BARRERO, Sworn Certified Translator and Interpreter for the English-Spanish, Spanish-English languages, appointed pursuant to Competence Certificate No. 0324 by the National University of Colombia and duly registered before the Ministry of Foreign Affairs, do hereby certify that the above translation fully corresponds to the original document written in Spanish. In witness whereof, I have hereunto set my hand and affixed my Official Seal on this 30th day of November, 2016. Translator's Contact Information: (571) 6135182, (57) 3002315608, Calle 116 # 71 A 25 Of. 202, traducciones@angloservicios.com, www.angloservicios.com)

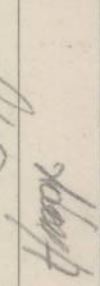


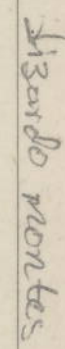

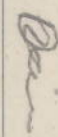
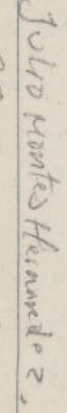
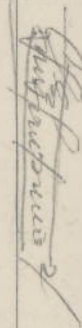
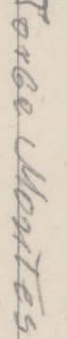
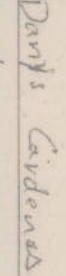
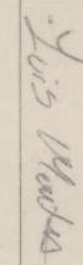


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Universidad Nacional de Colombia

Presentación y consulta para la formulación de la propuesta: "Manejo Integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana".

Actividad: Crecimiento libre e informado - Calder Jugoita y Tesoson  
 Lugar: San Berto Abad  
 Fecha: 19-11-2016

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Numero de identificación	Edad	F	M	Telefono	Comunidad/ Organización	Firma
1	Adriana Acuña	18825023	56		X	3116697729	Tacosuan	
2	Julio Roberto Girones	1102230080	53		X	220636866	TACASUAN	
3	Glory Vega	1102222908	30	X		32066224	Tacosuan	
4	Lizardo m. montes	18859363		X		313354544	tacosuan	
5	MARIA TOVA	64697573		X		322517483	Tacosuan	
6	Diana Lindero	18.859.369		X		3225749993	Tacosuan	
7	Francisco carbunars	6.814038			X	3205005434	Tacosuan	
8	Julio Cesar Montes	3.941.827.	67.		X	320566944	Tacosuan	
9	Pais Guardo Paulson Elyon	18859015	35		X	3122164341	CAJALOD TACAQUIA	
10	TORRE MONTES	79825044	53		X	3205505434	TACAQUIA	
11	Dany's Cardenas Lambano	11.042.029	37		X	3218435844	TACAQUIA	
12	Luis Andres Martinez	1.102.232816	21		X	3234373533	Jugoita	

Observaciones:

Presentación y consulta para la formulación de la propuesta: "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana".

Actividad: Crecimiento lípez e informado - Esbidos Jequita y Takaran  
 Lugar: San Benito Abad  
 Fecha: 19-11-2016

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Numero de identificación	Edad	F	M	Telefono	Comunidad/Organización	Firma
1	Mañana nicolasa c	23.065.148	68	X		321.565.0858	Camido Jequita.	Mañana coteras N.
2	Jordanis ortega	23.065.555	45	X		3107183334	Jequita	Jordanis ortega.
3	Sanit Jozana silviana	749 661	35	X		313588630	Jequita	Sanit Jozana
4	Hilady's Navarez	1.102.231.446.	24	X		3218648355	Jequita	Hilady's Nav.
5	Arcenio Navarez	92.028.831	50		X	3205287844	Jequita.	Arcenio Navaraz
6	Alvaro Salcedo	3.942.514	48		X		Jequita	Alvaro Salcedo
7	Noraibis Gale	1.102.230089	28	X		3208732836	Jequita	Noraibis Gale B.
8	José A Salcedo	CC 050.699 29	29		X	3216781576	Jequita	José A Salcedo
9	Semir Baldoirino	CC 18850568	46		X	3216781578	Jequita	Semir Baldoirino
10	Pablo Rivera	CC 3942558	58		X	3107068358	Jequita	Pablo Rivera
11	Nei's ortega A	18855184	60		X	3135003062	Jequita	Nei's ortega
12	Tobias Cruz Saldelo	18858308	37		X	3145446326	Jequita	Tobias Cruz Saldelo

Observaciones:

Presentación y consulta para la formulación de la propuesta: "Manejo Integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana".

Actividad: **Conocimiento, Ciber e Informado - Cabildos Jegueta y Takaxon**

Lugar: **Dah Rquito Abad**

Fecha: **19/11/2016**

DATOS DE LOS ASISTENTES

Nº	Nombres y Apellidos	Numero de Identificación	Edad	F	M	Telefono	Comunidad/ Organización	Firma
1	Fredis José Arrietas Barajas	1102237990	23		X	3146263011	Cabildo Jegueta	Fredis Arrietas
2	Yanis Benavides	25809356	46	X		3114290818	Cabildo Jegueta	Yanis Benavides
3	Fredis Asister	8371483	51		X	3216780812	Cabildo Jegueta	Fredis Asister
4	Jeg Estela Bernad	64748669	42	F		314579797	Cabildo Jegueta	Jeg Estela Bernad
5	Juan Felipe	1102232815	29		X	3206838643	Cabildo Jegueta	Juan Felipe
6	Aurilio Hernandez	1102229541	28		X	372455558	Cabildo Jegueta	Aurilio Hernandez
7	Dandra Nony Yeps	64870411	37	X		314511884	Cabildo Jegueta	Dandra Nony
8	Santander Mera	18856888	44		X	312607632	Cabildo Jegueta	Santander Mera
9	ARRERIS NAVARRAS	23063774	43	X		3217079985	Jegueta	ARRERIS NAVARRAS
10	Enith Ortega	23.063.853	43	X		3218231929	Jegueta	Enith Ortega
11	Cesar Martinez	1148.439384	25		X	3218648355	Jegueta	Cesar Martinez
12	Piufarco Caldera	3.942.561	58		X	3126905001	Jegueta	Piufarco Caldera

Observaciones:



Departamento Nacional de Planeación

Fondo Adaptación



Presentación y consulta para la formulación de la propuesta: "Manejo Integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en la Mojana".

Comunitario hbr e informos - Caballo Jenes de Palto

Lugar: San Jacinto 1522  
Fecha: 19-11-2016

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Numero de identificación	Edad	F	M	Telefono	Comunidad/ Organización	Firma
1	Diana Luz Linares	13.063.046	52	X		3133461329	Comunidad Palto	Diana Luz Linares
2	Renata Fernan Pizar	23.062.059	66	X		312.652.4805	Comunidad Palto	Renata Fernan Pizar
3	Rubis Esperanza Gomez	28.063.449	47	X		3137123508	Comunidad Palto	Rubis Gomez
4	Jedith Carolina Carr	23.063.657	45	X		3114370664	Comunidad Palto	Jedith Carolina Carr
5	Libardo Alencar	18.859389	39		X	3205614177	Comunidad Palto	Libardo Alencar
6	Carmen Fernan	23.063.195		X		3126434152	Comunidad Palto	Carmen Fernan
7	Luis Diaz Perez	11040771			X		Comunidad Palto	Luis Diaz Perez
8	Lilia Lidia Verduca	64.748.244		X		311697344	Comunidad Palto	Lilia Lidia Verduca
9	Fátima Bonifaz	23062900	49	X		320570570	Comunidad Palto	Fátima Bonifaz
10	Friena Trujett	110228539	30	X		312202290	Comunidad Palto	Friena Trujett
11	Harley Trujetta	23063196	49	X		3148180421	Comunidad Palto	Harley Trujetta
12	Juquyn Calbuco	18.855.819	53	X	X	320540241	Comunidad Palto	Juquyn Calbuco

Observaciones:



DNP  
Departamento  
Nacional  
de Personal

Fondo Adaptación



Presentación y consulta para la formulación de la propuesta: "Manejo Integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana."

Lugar: Comunidad Palito y Palito de Palito  
Fecha: 19-11-2016

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Numero de identificación	Edad	F	M	Telefono	Comunidad/ Organización	Firma
1	Douglas Paiche	23.062.818	57	X		3234225735	Comunidad Palito de Palito	Douglas Paiche
2	Juan Cadavoco	92.527.734			X	3126488262	" "	Juan Cadavoco
3	Charles del Jela C.	18'858.930	33		X	3126485136	Comunidad Palito de Palito	Charles del Jela C.
4	Andrés Atencia	15856020						Andrés Atencia
5	Roberto Humane	93063108	51	X		3117243344	Comunidad Palito de Palito	Roberto Humane
6	Alejandro Tobal	23065508	43	X		3135553948	Comunidad Palito de Palito	Alejandro Tobal
7	Alfonso Basteriz C	18955077	48	X	X	3136041083	Comunidad Palito de Palito	Alfonso Basteriz C.
8	Ariel Narváez Rodríguez	18857058	42		X		Comunidad Palito de Palito	Ariel Narváez.
9	Yonnis Alencio	21926433	48		X	3116708962	Comunidad Palito de Palito	Yonnis Alencio
10	Fredy Goer	18'852.4102	39	X	X	30012114	Comunidad Palito de Palito	Fredy Goer
11	David Huñor	4102229489	28		X	322564422	Comunidad Palito de Palito	David Huñor
12	Jorge J. García	189855752	53		X	3225961542	Comunidad Palito de Palito	Jorge J. García

Observaciones:



**DNP**  
Departamento  
Nacional  
de Planeación

Fondo Adaptación



Presentación y consulta para la formulación de la propuesta: "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana"

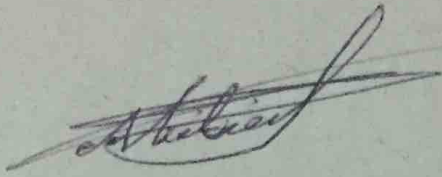
Actividad: *Comunicación Libe e informada - Cobros Lomas de Paila*

Lugar: *S. Baudo*

Fecha: *19-11-2016*

DATOS DE LOS ASISTENTES

Nº	Nombres y Apellidos	Numero de identificación	Edad	F	M	Teléfono	Comunidad/ Organización	Firma	
1	Nilson Vence	18856154	48		X	313412451	Lomas de Paila	Nilson Vence	
2	Amarely Tapia	8046580	49		X	3117259552	Lomas de Paila	Amarely Tapia	
3	Luis Olenas	9503242					Lomas de Paila	Luis Olenas	
4	Teina Caldera	23062034					Lomas de Paila	Teina Caldera	
5	Leonor Herrera	18955822				3145121110	Lomas de P.	Leonor Herrera	
6	Enadis Huñoz B	23063500				3012992812	Lomas de P.	Enadis Huñoz B	
7	Yolanis Zúñiga	1102230300	27	X		3044934081	Lomas de P.	Yolanis Zúñiga	
8	Miludys Rodríguez	23062825				3128692289	Lomas de P.	Miludys Rodríguez	
9	Carmen Martínez	1102231846				3008509492	Lomas de P.	Carmen Martínez	
10	Susy Huperlin Jarama	64749255	35	X		3104440654	Lomas de Paila	Susy Huperlin Jarama	
11	Luis Erasmo Pedraza	9309530	63		X	3106849688	Lomas de P.	Luis Erasmo Pedraza	
12	Observaciones:								



Acta del proceso de conocimiento, libre, previo e informado para la formulación de la propuesta "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de las comunidades más vulnerables en La Mojana"

Cabildo Montegrando

Fecha: noviembre 23 2016

Agenda: Bienvenida, presentación, socialización propuesta al GCF, acta de proceso de conocimiento, expresión de compromiso.

Saludos y presentación de asistentes:

Presentación institucional. Quienes son; PNUD, DNP y FAN:

Presentación de la propuesta: "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana"

Preguntas:

¿Consideran ustedes que este responde a necesidades de la población, relacionadas con los impactos que está generando la variabilidad climática y el cambio climático en la comunidad? **Si**

¿De qué manera? porque este proyecto generara Beneficio no solo a la Comunidad sino al medio ambiente

¿Consideran ustedes que la estrategia presentada en esta propuesta se ajusta a las características culturales de su comunidad? Si

¿Porqué? el solo hecho de Trabajar con especies nativas estamos cumpliendo con los exigencia de nuestra comunidad.

¿Qué estrategia de fortalecimiento de capacidades puede implementar el proyecto que responda a sus características culturales?

Capacitación en la parte ambiental  
educar a la población campesina.  
capacitación en el cuidado de recurso hídrico -  
el papel fundamental de la Mujer

¿Cuáles son los recursos naturales de los que dependen y como serían afectados por el proyecto?

Los Arrollos. Aguas Vivas. los humedales  
Flora. fauna Suelo.

¿Cuáles son sus recomendaciones a la propuesta para garantizar una mayor inclusión y un enfoque diferencial, que garantice la plena participación de la comunidad?

ser los veedores del proyecto y participación en el mismo. Tener en cuenta a toda la población

Preguntas y comentarios

mantener informada a la comunidad sobre el proceso del proyecto

y que sea la Comunidad la que maneje los recursos, de todo lo que se realice en la zona por el proyecto.

Recomendaciones:

(CERTIFIED TRANSLATION OF A DOCUMENT WRITTEN IN SPANISH)

(Signed)

Minute of the free, prior, and informed knowledge process for the formulation of the proposal “Comprehensive management of water resources as a climate change adaptation strategy for the most vulnerable communities of *La Mojana*”

(Handwritten text) *Monte grande* Council

Date: (Handwritten text) November 23<sup>rd</sup>, 2016

Agenda: (Handwritten text) welcome, introduction, presentation of proposal to GCF (Acronym: Green Climate Fund), preparation of knowledge process minute, expression of commitment.

Greetings and introduction of attendees:

Institutional presentation: Who are UNDP, DNP (Acronym in Spanish: National Planning Department) and FAN (Acronym in Spanish: National Adaptation Fund):

Presentation of proposal: “Comprehensive management of water resources as a climate change adaptation strategy for the most vulnerable communities of *La Mojana*”

Questions:

Do you think that the proposal meets the needs of the population regarding the impacts generated by climate variability and climate change on the community?

(Handwritten text) **Yes.**

How?

(Handwritten text) Because this project would not only benefit the community but also the environment.

Do you think that the strategy presented in the proposal fits the cultural features of your community?

(Handwritten text) Yes.

Why?

(Handwritten text) Simply by working with native species, we are complying with the requirements of our community.

What capacity strengthening strategy can the project implement to respond to your cultural features?

(Handwritten text)

To receive training on environmental issues.

To educate the peasant population.

To receive training on how to preserve water resources.

To acknowledge the fundamental role of women.

What natural resources do you depend on and how would they be impacted by the project?

(Handwritten text) Brooks, white waters, wetlands, flora, wildlife, soil.

What are your recommendations to the proposal to guarantee greater inclusion and a differential approach in order to ensure the full involvement of the community?

(Handwritten text)

To be project supervisors and participate in it. Take into account the whole population.

Questions and remarks

(Handwritten text) Keep the community informed about the progress of the project. It should be the community the one that handles the resources of everything that is done in the area of the project.

Recommendations

(I, SANDRA MILENA PINILLA BARRERO, Sworn Certified Translator and Interpreter for the English-Spanish, Spanish-English languages, appointed pursuant to Competence Certificate No. 0324 by the National University of Colombia and duly registered before the Ministry of Foreign Affairs, do hereby certify that the above translation fully corresponds to the original document written in Spanish. In witness whereof, I have hereunto set my hand and affixed my Official Seal on this 1<sup>st</sup> day of December, 2016. Translator's Contact Information: (571) 6135182, (57) 3002315608, Calle 116 # 71 A 25 Of. 202, traducciones@angloservicios.com, www.angloservicios.com)



DNP Departamento Nacional de Planeación

Fondo Adaptación



Presentación y consulta para la formulación de la propuesta: "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana"

Actividad Socialización Propuesta fondo Verde del clima

Lugar El Tigre - San Marcos

FECHA 23-11-16 DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Numero de identificación	Edad	F	M	Telefono	Comunidad/Organización	Firma
1	Juis Herrera	10880552	45		✓	3107306408	Cabildo Monte grande	Juis Herrera
2	Hector Guerrero	13356790	65		✓	3105133646	Cabildo Monte grande	Hector Guerrero D.
3	Jeronimo castillo	6615822	85		✓		Cabildo Monte grande	
4	Manuel Cerafo	10840246	65		✓		Cabildo Monte grande	
5	Randy flores	10870219	52		✓	312658133	Cabildo Monte grande	Randy
6	DELIA PARETEL	34943810	38	✓		312619454	cabildo Monte grande	D.P.
7	Miguel Valdivino	3824115	54		✓	3146398077	Cabildo Monte grande	Miguel Bababino
8	Maria Valencio	34948114	53		✓	32189834	Cabildo Monte grande	Maria Valencio
9	Virginia Martinez	23064280	62		✓		Cabildo Monte grande	Virginia Martinez
10	Georgina Martinez	23064281	66		✓		Cabildo Monte grande	Georgina
11	María Quibez	23100998	59		✓		Cabildo Monte grande	María Quibez
12	Adalberto Oviedo	8691509	59		✓	3207190545	Cabildo Monte grande	Adalberto - OV

Observaciones:



**DNP** Departamento Nacional de Planeación

Fondo Adaptación



Presentación y consulta para la formulación de la propuesta: "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana"

Actividad: Socialización  
 Lugar: El Llano - San Marcos  
 Fecha: 23-11-2016  
 Propuesta fondo Verde del clima.

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Numero de identificación	Edad	F	M	Telefono	Comunidad / Organización	Firma
1	Juz Aída Viloria	22979454	56	✓	✓	3148495343	Cabildo Monte Grande	Juz Victoria
2	Jolio Castillo	110550401	67	✓	✓	3135417532	Cabildo Monte Grande	Julio Castillo S.
3	Justinauro Peña	6669526	80	✓	✓		Cabildo Monte Grande	
4	Manuel Mendoza	78293204	53	✓	✓	3008650351	Cabildo Monte Grande	Manuel
5	Aída Juz Arrieta	34940295	53	✓	✓	3126259122	Cabildo Monte Grande	Aída Arrieta
6	Josuífa Sicafo	34890258	57	✓	✓	3105427788	Cabildo Monte Grande	
7	Sodis A. Aguas	9195211	59	✓	✓	3136067481	Cabildo Monte Grande	Sodis A.
8	Franciso Oquendo	10845423	56	✓	✓	3126893698	Cabildo Monte Grande	
9	Josévardo Lopez	8173134	55	✓	✓	3205100526	Cabildo Monte Grande	Josévardo Lopez
10	Silvia Montiel	1005396004	22	✓	✓	3103563682	Cabildo Monte Grande	Silvia Montiel D.
11	Walter Arias	10880918	47	✓	✓	3106418418	Cabildo Monte Grande	Walter Arias.
12	José Luis Emery	959837	77	✓	✓		Cabildo Monte Grande	José Luis Emery

Observaciones:



DNP

Departamento Nacional de Planeación

Fondo Adaptación



TOPOS POR UN NUEVO PAÍS



PN UD

Presentación y consulta para la formulación de la propuesta: "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana"

Actividad: Socialización Propuesta Fondo Verde del Clivay  
Lugar: El Llano - Savanaveros  
Fecha: 28-11-2016

DATOS DE LOS ASISTENTES

Nº	Nombres y Apellidos	Numero de Identificación	Edad	F	M	Telefono	Comunidad/ Organización	Firma
1	Manuel Osorio	6809063	73		✓		Cabildo Monte Grande	Manuel
2	José Luis Osorio	1005679283	27		✓	3126290602	Cabildo Monte Grande	José Osorio
3	Yesica Oriedo	4104426242	23		X	3203372932	Cabildo Monte Grande	Yesica Oriedo
4	Pedro Oriedo	10865749			X	320542069	Cabildo Monte Grande	Pedro Oriedo
5	Donaldito Murata	10895601	61		✓	3116902941	Cabildo Monte Grande	Donaldito Murata
6	Davis Osorio	34944993	47		✓	3005638133	Cabildo Monte Grande	Davis Osorio
7	Fernan Osorio	3959266	70		✓	3136036904	Cabildo Monte Grande	Fernan Osorio
8	Walter Vergara	10887697	32		✓	3105167006	Cabildo Monte Grande	Walter Vergara
9	Herman Alvaron	8472827	68		✓	3137618798	Cabildo Monte Grande	Herman Alvaron
10	Jolito Bonzaez	3959247	63		✓	3114359728	Cabildo Monte Grande	Jolito Bonzaez
11	Elmer Rafael Rivin	18750145	60		X	3003144906	Cabildo Monte Grande	Elmer Rafael Rivin
12	Colon A. Orozco	10840196			✓		Indigeno	Colon A. Orozco

Observaciones:



DNP

Departamento Nacional de Planeación



Fondo Adaptación



MINAMBIENTE



Presentación y consulta para la formulación de la propuesta: "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana"

Actividad: Socialización con líderes comunitarios  
Lugar: El Llano - San Marcos  
Fecha: 28-11-2016  
PROPUESTA FONDO VERDE DEL CLIMA

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Numero de identificación	Edad	F	M	Telefono	Comunidad/Organización	Firma	
1	Billy Orozco	1080506037	37		X	3126594781	INDIGENA	Billy Orozco	
2	Alicia Rodríguez	10886598	35	X	X	3104149502	comunidad indígena	<i>[Signature]</i>	
3	José Cuadrado	10882466	35		X	3225205269	Indígena	José Cuadrado	
4	Isaac Rodríguez	9314693	53		X		Comunidad Guacanda	Isaac Rodríguez	
5									
6									
7									
8									
9									
10									
11									
12	Observaciones:								

Acta del proceso de conocimiento, libre, previo e informado para la formulación de la propuesta "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de las comunidades más vulnerables en La Mojana"

Lilío F. Mustaco D.M. - Cabildo Santo Domingo Vidal

Fecha: 23-NOV-2016

Agenda: Bienvenida, presentación, socialización propuesta, acta de proceso de conocimiento, expresión de compromiso.

Saludos y presentación de asistentes:

Presentación institucional. Quienes son; PNUD, DNP y FAN:

Presentación de la propuesta: "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana"

Preguntas:

¿Consideran ustedes que este responde a necesidades de la población, relacionadas con los impactos que está generando la variabilidad climática y el cambio climático en la comunidad?

Esta la mayoría si responde a las necesidades de la población.

¿De qué manera?

¿Consideran ustedes que la estrategia presentada en esta propuesta se ajusta a las características culturales de su comunidad?

Rta: Si creemos que si se ajusta a nuestras necesidades

¿Porqué? responde a las practicas productivas, y el rescate de nuestros humedales que estan afectados y a la vez tambien al manejo de nuestra ganaderia

¿Qué estrategia de fortalecimiento de capacidades puede implementar el proyecto que responda a sus características culturales?

Rta: buenas practicas agricolas, rescate de semillas, rescate de artesanía, practicas culturales y a la vez la conservación de los ecosistemas. entre otros

¿Cuáles son los recursos naturales de los que dependen y como serían afectados por el proyecto?

El recurso natural mas importante es el agua y afecta en el proyecto positivamente.

¿Cuáles son sus recomendaciones a la propuesta para garantizar una mayor inclusión y un enfoque diferencial, que garantice la plena participación de la comunidad?

Preguntas y comentarios

BR: Tener en cuenta talleres Teóricos prácticos con la participación de todos. hombre, mujeres, Jóvenes, y niños. Es decir hacer participativa teniendo en cuenta el rescate agrícola, artesanal plantas medicinales para el Fortalecimiento cultural.

Lilío F Mustaco D H

Recomendaciones:

(CERTIFIED TRANSLATION OF A DOCUMENT WRITTEN IN SPANISH)

Minute of the free, prior, and informed knowledge process for the formulation of the proposal “Comprehensive management of water resources as a climate change adaptation strategy for the most vulnerable communities of *La Mojana*”

(Handwritten text) Lilio F Muslaco D H – *Santo Domingo Vidal* Council

Date: (Handwritten text) November 23<sup>rd</sup>, 2016

Agenda: (Handwritten text) welcome, introduction, presentation of proposal, preparation of knowledge process minute, and expression of commitment.

Greetings and introduction of attendees:

Institutional presentation: Who are UNDP, DNP (Acronym in Spanish: National Planning Department) and FAN (Acronym in Spanish: National Adaptation Fund):

Presentation of proposal: “Comprehensive management of water resources as a climate change adaptation strategy for the most vulnerable communities of *La Mojana*”

Questions:

Do you think that the proposal meets the needs of the population regarding the impacts generated by climate variability and climate change on the community?

(Handwritten text) Most of the proposal does meet the needs of the population.

How?

Do you think that the strategy presented in the proposal fits the cultural features of your community?

(Handwritten text) Answer: Yes, we believe the proposal fits our needs.

Why?

(Handwritten text) It responds to production practices and the recovery of our wetlands that have been affected, and at the same time, it responds to the management of our livestock.

What capacity strengthening strategy can the project implement to respond to your cultural features?

(Handwritten text) Answer: Good agricultural practices, seed recovery, recovery of handicraft traditions, cultural practices as well as the preservation of ecosystems, amongst others.

What natural resources do you depend on and how would they be impacted by the project?

(Handwritten text) The most important natural resource is water; and it is positively impacted by the project.

What are your recommendations to the proposal to guarantee greater inclusion and a differential approach in order to ensure the full involvement of the community?

Questions and remarks

(Handwritten text) Answer: Take into account theoretical-practical workshops with the participation of everyone in the community, men, women, young people, and children. In other words, good participation that takes into account the recovery of agriculture, handicrafts, and medicinal plants for cultural strengthening.

(Signed) Lilio F Muslaco D H

Recommendations:

(I, SANDRA MILENA PINILLA BARRERO, Sworn Certified Translator and Interpreter for the English-Spanish, Spanish-English languages, appointed pursuant to Competence Certificate No. 0324 by the National University of Colombia and duly registered before the Ministry of Foreign Affairs, do hereby certify that the above translation fully corresponds to the original document written in Spanish. In witness whereof, I have hereunto set my hand and affixed my Official Seal on this 1st day of December, 2016. Translator's Contact Information: (571) 6135182, (57) 3002315608, Calle 116 # 71 A 25 Of. 202, traducciones@angloservicios.com, www.angloservicios.com)



**DNP**

Departamento Nacional de Defensa

Fondo Adaptación



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Al servicio de la prevención

de las emergencias

Presentación y consulta para la formulación de la propuesta: "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana"

Actividad: Socialización  
Lugar: Cuenca - San Marcos (cabildo Verde del Climo Vital)  
Fecha: 23-11-2012

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Numero de Identificación	Edad	F	M	Telefono	Comunidad/Organizacion	Firma
1	Martinez Rivera Ricardo	1104424074	23	X		322 6953310	Santo domingo Cabildo verde	Martinez R.R.
2	Oswaldo Manuel Cruz	11105136	44		X	321 5387352	Cabildo Santo Domingo	OSWALDO CRUZ
3	mayibe Hondona B	64 695573	41	X		310 7439919	Domingo	Mayibe Hondona B.
4	Milady's Corpas	34 950779	32	X		312 4125501	Cabildo Santo Domingo	Milady's Corpas
5	Abadel Perez bonales	18 755204	60		X	320 5503456	Cabildo Santo Domingo	Abadel Perez
6	Leucadio Sarmiento	78 293356	53		X	320 5816873	Cabildo Santo Domingo	Leucadio Sarmiento
7	Francisco Regena	10 877401	52		X	320 9473389	Cabildo Santo Domingo	Francisco Regena
8	Damaso NRSRruza	39 660575	53		X		Cabildo Santo Domingo	
9	Andres Lopez Berdel	15044119	52		X	312 7252704	Cabildo Santo Domingo	Andres Lopez Berdel
10	Orlando Pacheco	10 881528	48		X	321 5802243	Cabildo Santo Domingo	Orlando Pacheco
11	Nelson Mosbaco Polo	11056289	70		X		Cabildo Santo Domingo	Nelson Mosbaco Polo
12	Doualdo Victoria Hercede	92.124.682	48		X	3005721200	Cabildo Santo Domingo	Doualdo Victoria Hercede

Observaciones:



**DNP** Departamento Nacional de Planeación

Fondo Adaptación



Presentación y consulta para la formulación de la propuesta: "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana".

Actividad: Socialización Propuesta Fondo Verde del Clima  
 Lugar: Guanda - San Marcos  
 Fecha: 23-11-2016.

DATOS DE LOS ASISTENTES

N°	Nombres y Apellidos	Numero de identificación	Edad	F	M	Telefono	Comunidad/ Organización	Firma
1	Carmen Ricardo	45 50 5604	45	X		3003320017	Santo domingo vidal	Carmen Ricardo
2	Ana Ospino	34 946 815	43	X		3108433918	Cabillo Santo Domingo	Ana Ospino
3	Guillermo Montalvo	10 886 676			X	3145280318	Cabillo Santo Domingo	Guillermo Montalvo
4	Jose Ramiro Albarado	3 960 282	70		X	314 903 8375	Cabillo Santo Domingo	Jose R. Albarado
5	Luz Daris Pequena	1104 406 139	31	X		321 881 3882	Cabillo Santo Domingo	Luz Daris Pequena
6	Jose Mustaco	11062 198	49		X		Cabillo Santo Domingo	Jose Mustaco
7	border de hoyos Peir	23-103462	65	X			Cabillo Santo Domingo	border de hoyos Peir
8	Nedy Luz vidal Rivera	1005622409	25	X		321 542 2802	Cabillo Santo Domingo	Nedy Luz vidal
9	crusita Mustaco	45553.679	34	X		321 693 8734	Cabillo Santo Domingo	crusita Mustaco
10	Katia Peña Pineda	1104404554	30	X		310 710 7509	Cabillo Santo Domingo	Katia Peña Pineda
11	Lilio Mustaco	11063504	43		X	321 591 5111	Cabillo Santo Domingo	Lilio Mustaco
12	Observaciones:							



San Andrés de Sotavento, Córdoba, Noviembre 25 de 2016

Señor,  
Martín Santiago Herrero  
Representante Residente  
UNDP Colombia

Asunto: Apoyo al proyecto titulado "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana"

Reconociendo la importancia estratégica que tiene para el país que sus comunidades sean más resilientes y cuenten con las condiciones necesarias para adaptarse a los efectos adversos del cambio y la vulnerabilidad climática, el Cabildo Mayor Regional del pueblo Zenú se complace en apoyar la propuesta programática integral que busca mejorar el manejo del recurso hídrico para incrementar la resiliencia climática de las comunidades vulnerables en La Mojana.

En la Región de la Mojana habita población perteneciente al Pueblo Indígena Zenú organizados en Cabildos Menores que han venido desarrollando su proceso organizativo en medio de un contexto territorial que se ha visto fuertemente afectado por el incremento en la frecuencia e intensidad de eventos climáticos extremos con prolongadas sequías e inundaciones que hacen particularmente vulnerables a los habitantes de esta planicie donde confluyen los principales drenajes de la región interandina de Colombia.

El Cabildo Mayor Regional del Pueblo Zenú considera fundamental la puesta en marcha del proyecto que contribuiría con el propósito de tener una sociedad sustentable y con mayor capacidad de adaptarse al cambio global. Adicionalmente, nos complace que las comunidades indígenas de la región de La Mojana aprueben la realización del programa, sean parte de las instancias de decisión del mismo y participen activamente durante su implementación.

Quisiéramos agradecer al Fondo Verde del Clima por la oportunidad de financiar los vacíos actuales que tiene Colombia para implementar las medidas de adaptaciones que permitirán salvar vidas y mejorar los medios de vida de las poblaciones más vulnerables del país.

Cordialmente,

  
**EDER EDUARDO ESPITIA ESTRADA**  
CACIQUE MAYOR REGIONAL

San Andrés de Sotavento, Córdoba, November 25th, 2016

Mr.,  
Martín Santiago Herrero  
Resident Representative  
UNDP Colombia

**Subject:** Support for the project titled “Integrated management of water resources as a climate change adaptation strategy for the most vulnerable communities in La Mojana”.

Recognizing the strategic importance for the country of its most vulnerable communities being more resilient and having the necessary conditions to adapt to the adverse effects of climate vulnerability and change, the Zenú People’s High Regional Council is pleased to support the proposed integrated program which aims to improve the management of water resources to increase the climate-related resilience of the vulnerable communities in La Mojana.

The region of La Mojana belonging to the Zenú indigenous people, organized into lesser councils, has been running its organizational processes amid a territorial situation that has been badly affected by the increase in the frequency and intensity of extreme events, concluding in prolonged droughts and floods than make the inhabitants of this floodplain – where the main drainage routes of Colombia’s inter-Andean region meet – particularly vulnerable.

The Zenú People’s High Regional Council considers the implementation of the project to be fundamental, as it would contribute to a sustainable society with a greater capacity for adapting to global change. Additionally, we are pleased that the indigenous communities of the La Mojana region will approve the project’s implementation, form part of the decision-making process and actively participate in its implementation.

We would like to thank the Green Climate Fund for the opportunity to finance the gaps that Colombia currently has regarding the implementation of adaptation measures that will allow lives to be saved and improve the livelihoods of the most vulnerable sector of the population

Yours sincerely,

EDER EDUARDO ESPITIA ESTRADA  
HIGH REGIONAL CHIEF

Calle 12 No. 8-23 Casa Indígena – San Andrés de Sotavento Telephone 7799660  
Email: [indiozenu@yahoo.com](mailto:indiozenu@yahoo.com)  
Website: [resguardoindigenazenu.com](http://resguardoindigenazenu.com)

Cabildo Montegrando 23-NOV-2016

Señor,  
Martín Santiago Herrero  
Representante Residente  
UNDP Colombia

Asunto: Expresión de compromiso al proyecto del Fondo Verde del Clima titulado "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana"


Reconociendo la importancia estratégica que tiene para el país que sus comunidades sean más resilientes y cuenten con las condiciones necesarias para adaptarse a los efectos adversos del cambio y la vulnerabilidad climática, la comunidad Cabildo Montegrando se complace en apoyar la propuesta programática integral que busca mejorar el manejo del recurso hídrico para incrementar la resiliencia climática de las comunidades vulnerables en La Mojana.

La Región de la Mojana se ha visto fuertemente afectada por el incremento en la frecuencia e intensidad de eventos extremos concluyendo en prolongadas sequías e inundaciones que hacen particularmente vulnerables a los habitantes de esta planicie inundable donde confluyen los principales drenajes de la región interandina de Colombia.

Por su parte, el/la Cabildo Montegrando se encarga de aprobar y participar en la propuesta. En relación con lo anterior, la Comunidad del Cabildo Montegrando considera fundamental la puesta en marcha del proyecto que contribuiría con el propósito de tener una sociedad sustentable y con mayor capacidad de adaptarse al cambio global, objetivos que son de alta prioridad en la gestión adelantada por esta institución. Adicionalmente, nos complace saber que las medidas propuestas por el proyecto promueven un enfoque integral en el manejo de un recurso esencial para la vida como es el agua y propenden por crear las condiciones necesarias para hacerlas sostenibles en el tiempo.

Quisiéramos agradecer al Fondo Verde del Clima por la oportunidad de financiar los vacíos actuales que tiene Colombia para implementar las medidas de adaptaciones que permitirán salvar vidas y mejorar los medios de vida de las poblaciones más vulnerables del país. Especialmente de la población vulnerable dependiente de sectores sensibles al clima como la agricultura, la ganadería, el ambiente y las prácticas ancestrales

Cordialmente,

  
Nombre Completo: Alcibiades Ariete  
Entidad Cabildo Montegrando

Cabildo Santo Domingo vidal. Nov. 23-2016

Señor,  
Martín Santiago Herrero  
Representante Residente  
UNDP Colombia

Asunto: Expresión de compromiso al proyecto del Fondo Verde del Clima titulado "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana"

Reconociendo la importancia estratégica que tiene para el país que sus comunidades sean más resilientes y cuenten con las condiciones necesarias para adaptarse a los efectos adversos del cambio y la vulnerabilidad climática, la comunidad indígena Santo Domingo v. se complace en apoyar la propuesta programática integral que busca mejorar el manejo del recurso hídrico para incrementar la resiliencia climática de las comunidades vulnerables en La Mojana.

La Región de la Mojana se ha visto fuertemente afectada por el incremento en la frecuencia e intensidad de eventos extremos concluyendo en prolongadas sequías e inundaciones que hacen particularmente vulnerables a los habitantes de esta planicie inundable donde confluyen los principales drenajes de la región interandina de Colombia.

Por su parte, la comunidad Santo Domingo se encarga de participar en la propuesta del proyecto

En relación con lo anterior, la comunidad indígena Santo Domingo vidal considera fundamental la puesta en marcha del proyecto que contribuiría con el propósito de tener una sociedad sustentable y con mayor capacidad de adaptarse al cambio global, objetivos que son de alta prioridad en la gestión adelantada por esta institución. Adicionalmente, nos complace saber que las medidas propuestas por el proyecto promueven un enfoque integral en el manejo de un recurso esencial para la vida como es el agua y propenden por crear las condiciones necesarias para hacerlas sostenibles en el tiempo.

Quisiéramos agradecer al Fondo Verde del Clima por la oportunidad de financiar los vacíos actuales que tiene Colombia para implementar las medidas de adaptaciones que permitirán salvar vidas y mejorar los medios de vida de las poblaciones más vulnerables del país. Especialmente de la población vulnerable dependiente de sectores sensibles al clima como la agricultura, ganadería, prácticas culturales como artesanías entre otras.

Cordialmente,

Lilío F. Mostaco de H

Nombre Completo: Lilío F. Mostaco de Hoyas C.C. 11063.504  
Entidad: Cabildo Santo Domingo vidal.

Cabildo El Pital 23-NOV-2016

Señor,  
Martín Santiago Herrero  
Representante Residente  
UNDP Colombia

Asunto: Expresión de compromiso al proyecto del Fondo Verde del Clima titulado "Manejo integral del recurso hídrico como estrategia para la adaptación al cambio climático de comunidades más vulnerables en La Mojana"

Reconociendo la importancia estratégica que tiene para el país que sus comunidades sean más resilientes y cuenten con las condiciones necesarias para adaptarse a los efectos adversos del cambio y la vulnerabilidad climática, la comunidad indígena del Pital se complace en apoyar la propuesta programática integral que busca mejorar el manejo del recurso hídrico para incrementar la resiliencia climática de las comunidades vulnerables en La Mojana.

La Región de la Mojana se ha visto fuertemente afectada por el incremento en la frecuencia e intensidad de eventos extremos concluyendo en prolongadas sequías e inundaciones que hacen particularmente vulnerables a los habitantes de esta planicie inundable donde confluyen los principales drenajes de la región interandina de Colombia.

Por su parte, el Cabildo Mayor El Pital se encarga de aprobar y participar en la propuesta. En relación con lo anterior, la Comunidad del Cabildo Mayor El Pital considera fundamental la puesta en marcha del proyecto que contribuiría con el propósito de tener una sociedad sustentable y con mayor capacidad de adaptarse al cambio global, objetivos que son de alta prioridad en la gestión adelantada por esta institución. Adicionalmente, nos complace saber que las medidas propuestas por el proyecto promueven un enfoque integral en el manejo de un recurso esencial para la vida como es el agua y propenden por crear las condiciones necesarias para hacerlas sostenibles en el tiempo.

Quisiéramos agradecer al Fondo Verde del Clima por la oportunidad de financiar los vacíos actuales que tiene Colombia para implementar las medidas de adaptaciones que permitirán salvar vidas y mejorar los medios de vida de las poblaciones más vulnerables del país. Especialmente de la población vulnerable dependiente de sectores sensibles al clima como la agricultura, la ganadería, el medio ambiente, las artesanías entre otros.

Cordialmente,

Olga Lucía Vertel

Nombre Completo: Olga Lucía Vertel

cc: 25.869.415

Entidad Cabildo Mayor El Pital

PHOTOS OF MEETINGS WITH INDIGENOUS PEOPLES IN LA MOJANA

VISITA A CABILDO MONTEGRANDE – SAN MARCOS



VISITA A CABILDO SANTO DOMINGO VIDAL – SAN MARCOS



VISITA A CABILDO MAYOR EL PITAL



**REUNIÓN CON CABILDO INDÍGENA CUIVA (JUNTA DIRECTIVA) – SAN BENITO ABAD**



VISITA A CABILDO AGUA FRÍA – CAYO DE LA CRUZ SAN MARCOS



## **ANNEXURE THREE: ENVIRONMENTAL AND SOCIAL CODE OF PRACTICE FOR RAINWATER HARVESTING TANKS**

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This Environmental and Social Code of Practice has been established for the purposes of the construction, operation, maintenance and where necessary, although unlikely, the decommissioning of the rainwater tanks.

### **Construction of Rainwater Harvesting Tanks**

The rainwater tanks will be prefabricated to reduce waste. Any waste that is produced should follow the procedures as established by the Environmental and Social Management Framework.

All rainwater tanks will be constructed on a sand based and/or concrete ring beam footing and/or crusher dust pad. It is imperative to ensure foundations and civil works for the site are adequate and that the civil works do not impact offsite. The preparation of the pad that the rain water tank will be constructed on:

- (a) Prepare a sand/cracker dust/concrete pad approximately 2 metres larger in diameter than that of the chosen tank. The pad should be at least 150mm deep. The area should be free of vegetation, tree roots, etc, to ensure there is no possibility of them growing back;
- (b) Ensure the sub soil has adequate compaction (minimum 50 kpa). The preferred base material is free draining sand, level over the entire area (to within approximately 10mm) and free of any sharp objects, clay lumps, stones. Important: the pad must be level (within 10mm); and
- (c) If the site has been cut into an incline and filled to form the base of the tank, ensure that there is adequate compaction (to a minimum allowable capacity of 50kPa) of the sub soil to avoid subsidence. Adequate drainage must be installed to divert water run of away from the tank.

The water tanks will be engineered for hurricane/cyclonic regions. The water tanks must be tied down thereby reducing the impacts of hurricanes/cyclones and floods moving the tanks. This will also reduce the potential for the release of the water contained within the tanks during an event.

There will be a need to retro fit buildings to accommodate the flow of water to the rainwater tanks. The current building have uncontrolled overflow and as such, the roof of each building will need to be retrofitted with gutters and downpipes. Gutters should be fitted with steel mesh to stop leaves entering the gutters. This will have a two-fold benefit. Firstly, accumulated leaves can result in the rusting of the gutters over time. By not allowing the leaves to enter the gutters, this will significantly reduce this impact. Secondly, by not allowing leaves to accumulate in the gutters and decompose, this will provide better quality water into the rainwater tanks.

Within the downpipe at a height easily accessible to a person, first flush diverters will be installed on all guttering to remove residue that might accumulate on roof of buildings over time. To further ensure good quality water, UV sterilization and purifications systems will be installed on the final tank thus providing high quality drinking water. Discussion on the operation and maintenance of the first flush diverters and sterilization and purification systems is provided below.

Overflow pipes from the rainwater tanks should drain into existing groundwater wells to recharge groundwater aquifers directly rather than through leaching. This will have a significant beneficial impact on the groundwater ecosystems that are currently stressed.

The tanks must have an internal liner so the water does not heat up as it does in normal concrete tanks. The liner shall have a state of the art food grade, UV treated, multi layered film to provide extra layers of strength and durability.

All tanks will be fitted with filters. The filters would include both a cartridge type approach as well as a as an ultra violet sterilization and purification treatment system. Ultraviolet water disinfection systems present the safest method to sterilize water. Water needs to be free of harmful micro-organisms to safeguard health and the environment. The benefits of having cartridges included in the filtration and sterilization process is that ultraviolet water treatment systems don't use chemicals and don't produce harmful by-products, they are an economical way to eliminate health risks from unsafe drinking water; they will guarantee delivery of safe and clean water; and importantly they deactivate and remove pathogens and parasites such as salmonella, E coli and giardia. The cartridges will then remove any material that the UV systems may not be able to remove (extremely limited). These systems have been used internationally to provide clean safe drinking water.

### Operation of Rainwater Harvesting Tanks

The activity will involve the provision of water to households/individuals. To ensure the operation does not have environmental and social impacts, it is necessary to ensure that people collecting water have clean containers. Where necessary, a small amount of water should be placed in a bucket and then poured into the container and the container cleaned. The disposal of this water should be undertaken to ensure there is no release of any chemicals or residue into the environment.

Water should be made available during daylight hours only. This will ensure there is no uncontrolled release of water. When make water available, two people should manage this process. One should control the release of water from the rainwater tank itself and the second person should control the release of water from the sterilization and purification system. By having two people undertake this task, it reduces the potential for an uncontrolled release of water into the environment.

### Maintenance of Rainwater Harvesting Tanks

The following maintenance regime has been established for the rainwater harvesting tanks. A register should be established for each location based on that provided below to ensure maintenance is undertaken at the recommended period.

The use of the rainwater tanks has been based on the need for limited maintenance. The maintenance requirements are as follows:

- (a) Water quality check;
- (b) Cleaning of UV sterilizer and purification systems;
- (c) Changing cartridges annually or as required;
- (d) Cleaning and checking of guttering and downpipes;
- (e) Cleaning of first flush diverters and mesh screen on top of the rainwater tanks;
- (f) Periodic inspection of the tank itself, including viewing through the inspection hole; and
- (g) Assessment and where necessary, the replacement of sacrificial anodes.

The water within the tank should be visually inspected weekly. A small glass jar should be used to analyse the clarity of the water. Simple water quality testing should also be conducted include pH etc. Water quality should be laboratory tested every three months to ensure it meets appropriate standards.

Once every three months, depending of the final infrastructure, the sterilization and purification system will require cleaning. The UV sterilization and purification system should be dismantled and cleaned every three months. Only mild soap should be used in the cleaning process. Following cleaning, the system should be triple rinsed to ensure it is clean. Seals and o rings should be checked as to whether they are perished, cracked and/or have any breaks. Where a break is found, the seal and/or o ring should be replaced.

Cartridges should be replaced annually months to maintain drinking water standards. It is preferred that a carbon filter be used as the final cartridge before drinking. Funding for the cartridges has been included in the budget.

First flush diverters will need to be periodically checked (weekly). This will require dust, leaves to be removed, if not automatically done so by the first flush diverter. This period may be extended where no rainfall occurs. Likewise, the fine mesh screen should be checked weekly and as required.

Prior to the beginning of the wet season, all gutters and downpipes should be checked. This check will include ensuring there is no damage to gutters including holes that would allow water to escape, and no building up of decomposing matter. Where necessary, the downpipes should be disconnected from the rainwater tanks and the gutters cleaned with fresh water. The water will only contain organic material and therefore can be easily released into the environment. Downpipes should also be checked for any cracks or leaks. Where a crack or leak is observed, depending on the damage, the section of the downpipe can be replaced or bandaged.

Annually, and prior to the wet season, a visual inspection of the whole tank should be undertaken. This should include an internal inspection from the inspection door on top of the tank. When undertaking any inspection, given the height of the tank, appropriate safety procedures should be followed. This should include that anyone undertaking an inspection should have an appropriate safety harness. At no time should a person enter the tank until such time as it has been fully ventilated for a period of twenty four (24) hours to ensure that any lack of oxygen due to the tank being sealed in improved to safe levels.

### Decommissioning of Rainwater Harvesting Tanks

In the unlikely event that a rainwater tank requires decommissioning, the first priority is the controlled release of water. Where practicable, the release of water should be first to groundwater aquifers. Where this is not possible, the water should be released in such a way to not have any environmental and social impacts.

Once the water is released, the tank can be dismantled. Where practicable, all materials should be recycled and where not possible, placed at a licensed landfill. The tank pad should also be removed and the site revegetated.

## ANNEXURE FOUR: GUIDANCE FOR SUBMITTING A REQUEST TO THE SOCIAL AND ENVIRONMENTAL COMPLIANCE UNIT AND/OR THE STAKEHOLDER RESPONSE MECHANISM

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*Empowered lives.  
Resilient nations.*

### Guidance for Submitting a Request to the Social and Environmental Compliance Unit (SECU) and/or the Stakeholder Response Mechanism (SRM)

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#### Purpose of this form

- **If you use this form, please put your answers in bold writing to distinguish text**
- **The use of this form is recommended, but not required. It can also serve as a guide when drafting a request.**

This form is intended to assist in:

- (1) Submitting a request when you believe UNDP is not complying with its social or environmental policies or commitments and you believe you are being harmed as a result. This request could initiate a 'compliance review', which is an independent investigation conducted by the Social and Environmental Compliance Unit (SECU), within UNDP's Office of Audit and Investigations, to determine if UNDP policies or commitments have been violated and to identify measures to address these violations. SECU would interact with you during the compliance review to determine the facts of the situation. You would be kept informed about the results of the compliance review.

and/or

- (2) Submitting a request for UNDP "Stakeholder Response" when you believe a UNDP project is having or may have an adverse social or environmental impact on you and you would like to initiate a process that brings together affected communities and other stakeholders (e.g., government representatives, UNDP, etc.) to jointly address your concerns. This Stakeholder Response process would be led by the UNDP Country Office or facilitated through UNDP headquarters. UNDP staff would communicate and interact with you as part of the response, both for fact-finding and for developing solutions. Other project stakeholders may also be involved if needed.

Please note that if you have not already made an effort to resolve your concern by communicating directly with the government representatives and UNDP staff responsible for this project, you should do so before making a request to UNDP's Stakeholder Response Mechanism.

**Confidentiality** If you choose the Compliance Review process, you may keep your identity confidential (known only to the Compliance Review team). If you choose the Stakeholder Response Mechanism, you can choose to keep your identity confidential during the initial eligibility screening and assessment of your case. If your request is eligible and the assessment indicates that a response is appropriate, UNDP staff will discuss the proposed response with you, and will also discuss whether and how to maintain confidentiality of your identity.

### Guidance

When submitting a request please provide as much information as possible. If you accidentally email an incomplete form, or have additional information you would like to provide, simply send a follow-up email explaining any changes.

### Information about You

Are you...

1. A person affected by a UNDP-supported project?

Mark "X" next to the answer that applies to you:                      Yes:                      No:

2. An authorized representative of an affected person or group?

Mark "X" next to the answer that applies to you:                      Yes:                      No:

*If you are an authorized representative, please provide the names of all the people whom you are representing, and documentation of their authorization for you to act on their behalf, by attaching one or more files to this form.*

3. First name:

4. Last name:

5. Any other identifying information:

6. Mailing address:

7. Email address:

8. Telephone Number (with country code):

9. Your address/location:

10. Nearest city or town:

11. Any additional instructions on how to contact you:

12. Country:

### **What you are seeking from UNDP: Compliance Review and/or Stakeholder Response**

You have four options:

- Submit a request for a Compliance Review;
- Submit a request for a Stakeholder Response;
- Submit a request for both a Compliance Review and a Stakeholder Response;
- State that you are unsure whether you would like Compliance Review or Stakeholder Response and that you desire both entities to review your case.

13. Are you concerned that UNDP's failure to meet a UNDP social and/or environmental policy or commitment is harming, or could harm, you or your community? Mark "X" next to the answer that applies to you:    Yes:                      No:

14. Would you like your name(s) to remain confidential throughout the Compliance Review process?

Mark "X" next to the answer that applies to you:    Yes:                      No:

If confidentiality is requested, please state why:

15. Would you like to work with other stakeholders, e.g., the government, UNDP, etc. to jointly resolve a concern about social or environmental impacts or risks you believe you are experiencing because of a UNDP project?

Mark "X" next to the answer that applies to you:    Yes:            No:

16. Would you like your name(s) to remain confidential during the initial assessment of your request for a response?

Mark "X" next to the answer that applies to you:    Yes:            No:

If confidentiality is requested, please state why:

17. Requests for Stakeholder Response will be handled through UNDP Country Offices unless you indicate that you would like your request to be handled through UNDP Headquarters. Would you like UNDP Headquarters to handle your request?

Mark "X" next to the answer that applies to you:    Yes:            No:

If you have indicated yes, please indicate why your request should be handled through UNDP Headquarters:

18. Are you seeking both Compliance Review and Stakeholder Response?

Mark "X" next to the answer that applies to you:    Yes:            No:

19. Are you unsure whether you would like to request a Compliance Review or a Stakeholder Response?  
Mark "X" next to the answer that applies to you:    Yes:            No:

**Information about the UNDP Project you are concerned about, and the nature of your concern:**

20. Which UNDP-supported project are you concerned about? (if known):

21. Project name (if known):

22. Please provide a short description of your concerns about the project. If you have concerns about UNDP's failure to comply with its social or environmental policies and commitments, and can identify these policies and commitments, please do (not required). Please describe, as well, the types of environmental and social impacts that may occur, or have occurred, as a result. If more space is required, please attach any documents. You may write in any language you choose

23. Have you discussed your concerns with the government representatives and UNDP staff responsible for this project? Non-governmental organisations?

Mark "X" next to the answer that applies to you:    Yes:            No:

If you answered yes, please provide the name(s) of those you have discussed your concerns with

Name of Officials You have Already Contacted Regarding this Issue:

First Name	Last Name	Title/Affiliation	Estimated Date of Contact	Response from the Individual
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24. Are there other individuals or groups that are adversely affected by the project?

Mark "X" next to the answer that applies to you:    Yes:                  No:

25. Please provide the names and/or description of other individuals or groups that support the request:

First Name	Last Name	Title/Affiliation	Contact Information
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Please attach to your email any documents you wish to send to SECU and/or the SRM. If all of your attachments do not fit in one email, please feel free to send multiple emails.

### Submission and Support

To submit your request, or if you need assistance please email: [project.concerns@undp.org](mailto:project.concerns@undp.org)

**ANNEXURE FIVE: EROSION, DRAINAGE AND SEDIMENT CONTROL  
MANAGEMENT PLAN AND CONTAMINATED SOIL DISPOSAL  
MANAGEMENT PLAN OUTLINE**

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## **Project Description**

- a. Provide a comprehensive description of the project; and
- b. Include an overview of the pre-construction, construction, and operational phases of the project.

## **Purpose, Scope and Objective**

The section should include:

- a. Scope of the Erosion, Drainage and Sediment Control Management Plan (EDSCP) and Contaminated Soil Disposal Management Plan (CSDMP) ;
- b. Establish objectives for general EDSCP and CSDMP;
- c. Establish specific objectives for site specific EDSCP and CSDMP;
- d. Relationship to specific mitigation measures

## **Statutory and Regulatory Requirements**

- a. Legislative requirements as prescribed in the Project Environmental and Social Management Framework (ESMF) and Environmental and Social Management Plan (ESMP)

## **Potential Impacts**

- a. Overview of impacts identified in ESMF and ESMP;

**Erosion and sediment control impacts and mitigations**

<b>Source Impact</b>	<b>of</b>	<b>Potential Impact and Relevant Management Plan Objective</b>	<b>Mitigation and Management (Design Feature/ Specific Measure)</b>	<b>Mitigation Measure</b>	<b>Activity/ Monitoring</b>	<b>Frequency</b>	<b>Duration</b>	<b>Responsibility</b>	<b>Evidence</b>

**Project Implementation** (human resources, partners, and organisational responsibilities)

- a. Describe human resources for implementation of the plan and component programs/interventions;
- b. Clearly define roles and responsibilities and organisational structure;
- c. Discuss training that will be provided; and
- d. Describe potential partners (NGOs, government, etc.) and their respective roles and responsibilities.

**Resources**

- a. Equipment requirements including erosion and sediment control devices (sediment fencing, silt curtains, etc) water quality monitoring equipment; and on-site weather monitoring station;
- b. Staff involved including Construction Environmental Officer; Environmental Coordinator; Monitoring Officer; Environmental and Regulatory Manager; and
- c. Registers including water quality monitoring record; and non-conformance register.

**Schedule**

- a. Multi-year schedule of implementation for the component programs/ interventions and the overall plan.

**Monitoring and Evaluation**

- a. Overall monitoring and evaluation framework that integrates the monitoring and evaluation requirements for the component programs/ interventions.

**Reporting and Notification**

- a. Contractor's monthly report including results of the surveys and inspections; and number and results of verification inspections, including but not limited to landform stability inspections, sediment control structure and stockpile inspections and control measures implemented to manage failing sediment control structures and stockpiles.

**Budget**

- a. Budgets for the component programs/ interventions and the total cost of the plan.