



# PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: Full-sized Project

TYPE OF TRUST FUND: GEF Trust Fund

For more information about GEF, visit [TheGEF.org](http://TheGEF.org)

## PART I: PROJECT INFORMATION

<b>Project Title:</b>	<b>Ecosystem Approach to Haiti's Cote Sud</b>		
<b>Country(ies):</b>	Haiti	<b>GEF Project ID:</b>	5531
<b>GEF Agency(ies):</b>	UNEP	<b>GEF Agency Project ID:</b>	01167
<b>Other Executing Partner(s):</b>	*Ministry of Environment *Ministry of Agriculture and Natural Resources *Organisation pour la Réhabilitation de l'Environnement(ORE) *Société Audubon d'Haïti (SAH) * Service Maritime et de Navigation D'Haïti (SEMANAH)	<b>Resubmission Date:</b>	01/11/2013
<b>GEF Focal Area (s): CCA1-3, CC-2, CC-5, SFM/REDD++, BD-1, LD-2,</b>	Multi-focal Areas	<b>Project Duration(Months)</b>	60
<b>Name of parent programme (if applicable):</b>		<b>Agency Fee (US\$):</b>	\$590,520

### A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK:

Focal Area Objectives	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
CCA-1	LDCF	\$2,236,500	\$7,300,000
CCA-2	LDCF	\$409,500	\$1,300,000
CCA-3	LDCF	\$472,500	\$2,315,000
CCM2	GEFTF	\$1,207,500	\$1,060,000
CCM5	GEFTF	\$561,750	\$1,090,000
SFM/REDD+1	GEFTF	\$698,250	\$2,370,000
SFM/REDD+2	GEFTF	\$52,500	\$780,000
BD1	GEFTF	\$320,250	\$4,165,000
LD-1	GEFTF	\$257,250	\$670,000
<b>Total Project Cost</b>		<b>\$6,216,000</b>	<b>\$21,050,000</b>

### B. INDICATIVE PROJECT FRAMEWORK

<b>Objective: Increasing resilience to climate change risks and decreasing disaster risk <u>using an ecosystem management approach</u> targeting protected areas and fragile ecosystems in the Southwestern Peninsula of Haiti</b>					
Component	Outcome	Outputs	Trust Fund	Indicative Grant Amount	Indicative Co-financing

<p>1. Ecosystem sustainability and resilience in the identified Protected Areas of South Department in Haiti's South-western Peninsula</p>	<p>1.1 Establishment and effective climate resilient management of Ile a Vache National Park and Port Salut Protected Landscape (20,253 hectares).</p>	<p>1.1.1 Climate adapted management plans for National Park Ile a Vache ,Port Salut Protected Landscape, 5 managed habitat / species protected areas, and one national monument developed and conditions in place for sustainable management of biodiversity</p>	<p><b>GEFTF</b> <b>LDCF</b></p>	<p><b>\$1,595,000 (Total)</b> <b>GEFTF</b> \$1,055,000 <b>LDCF</b> \$540,000</p>	<p><b>\$6,750,000 (Total)</b> \$4,464,734 \$2,285,266</p>
	<p>1.2 Improved <u>forest</u> and land use climate resilient practices in five protected areas (9910 hectares) resulting in GHG emission reduction of 408,226 CO2 tons/year. Potential total carbon benefit of 2,041,128 CO<sub>2</sub> over 5 years.</p> <p>Additional restoration of 460 hectares of woodlands, resulting in GHG emission reduction of 10,102 CO<sub>2</sub> tons/year. Potential total carbon benefit of 505,508 tons CO<sub>2</sub> over 5 years.</p>	<p>1.2.1 Good management practices in Land Use, Land-Use Change and Forestry (LULUCF) adopted both within the forest land and in the wider landscape in 44,690 ha of La Cahouane, Port Salut, Ile a Vache, St Louis du Sud and Aquin* to restore ecosystems, reduce GHG emissions, and promote sustainable and resilient livelihoods) (focus on terrestrial ecosystems)</p> <p><i>(*) Both St Louis du Sud and Aquin areas will be developed in close synergies with Norway funded CSI projects within Terre Sud and Mer Sud programmes</i></p> <p>1.2.2 Improved charcoal production and use technologies and establishment of non-mangrove sources of wood for charcoal production provided in La Cahouane</p> <p>1.2.3 Standards and norms related to production and trade of environment sensitive goods (eg. charcoal, lime) extracted from vulnerable areas and protected areas are applied in the south-western peninsula</p>			
<p>Component 2: Disaster Risk Reduction through an ecosystem management approach in the broader Southwest Peninsula landscape (Departments of Sud, Grande Anse and Nippes)</p>	<p>2.1 Increased ecosystem and livelihood resilience through an Eco-DRR approach in 2,500 hectares along the southern coast landscape. Restoration of 400 hectares of mangrove will result in GHG emission reduction of 2,928 tons/year. Potential total carbon benefit of 14,640 tons CO<sub>2</sub> over 5 years.</p>	<p>2.1.1 Rehabilitated and resilient coastlines (150kms) providing local communities with protective and healthy coastal ecosystem (including disaster risk reduction services) in the South-western Peninsula</p> <p>2.1.2 Good ecosystem management practices are implemented in Port Salut , La Cahouane and Ile a Vache to promote alternative and resilient coastal livelihoods (focus on marine and coastal ecosystems for economic purposes)</p>	<p><b>GEFTF</b> <b>LDCF</b></p>	<p><b>\$2,370,000 (Total)</b> <b>GEFTF</b> \$40,000 <b>LDCF</b> \$2,330,000</p>	<p><b>\$7,000,000 (Total)</b> \$118,143 \$6,881,857</p>

	2.2 Strengthened local capacity to anticipate and rapidly respond to extreme weather events	2.2.1 Early warning and disaster preparedness is in place for 10 extremely vulnerable and heavily populated small islands and cays in the Departments of Sud, La Grande Anse and Nippes			
3. Reducing Land degradation and climate change impact by introducing improvements in the vetiver value chain	3.1 Improved land use practices adopted in the Vetiver value chain within the Port Salut Protected Landscape (7000 ha), leading to significant carbon sequestration	3.1 GHG emissions reduced through land management interventions in the vetiver value chain	GEFTF LDCF	\$1,955,000 (Total) GEFTF \$1,855,000 LDCF \$100,000	\$6,000,000 (Total) \$4,904,319 \$1,095,681
	3.2 GHG emission reduction benefits through vetiver supply chain efficiencies, inc new use of by-products	3.2 Private Sector engaged in GHG emissions-responsible production of vetiver oil factories in the broader South West Peninsula <sup>1</sup>			
		Sub-Total		\$5,920,000	\$19,750,000
		Project Management Costs	GEFTF LDCF	\$296,000 (Total) GEFTF \$147,500 LDCF \$148,500	\$1,300,000 (Total) \$647,804 \$652,196
		<b>TOTAL</b>			<b>\$6,216,000</b>

**C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)**

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount (\$)
National Government	Ministry of Environment (CSI)	Grant	13,500,000
National Government	Ministry of Environment	In-Kind	650,000
Multilateral Agency	UNEP	In-Kind	1,200,000
Multilateral Agency	UNDP <sup>2</sup>	Grant	5,700,000
<b>Total Cofinancing</b>			<b>21,050,000</b>

**D. INDICATIVE TRUST FUND RESOURCES (\$) REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY**

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount (\$) (a)	Agency Fee (\$) (b) <sup>2</sup>	Total (\$) c=a+b
UNEP	LDCF	CCA	Haiti	\$3,118,500	\$296,258	\$3,414,758
UNEP	GEFTF	CC	Haiti	\$1,769,250	\$168,079	\$1,937,329
UNEP	GEFTF	SFM	Global	\$750,750	\$71,321	\$822,071
UNEP	GEFTF	BD	Haiti	\$320,250	\$30,423	\$350,673
UNEP	GEFTF	LD	Haiti	\$257,250	\$24,439	\$281,689
<b>Total Grant Resources</b>				<b>\$6,216,000</b>	<b>\$590,520</b>	<b>\$6,806,520</b>

<sup>1</sup> Preliminary calculations show that through energy efficiency and improved practices adopted in the Vetiver value chain within the Port Salut Protected Landscape (7000 ha), could lead to additional carbon sequestration values of up to 66,500 tC per annum.

<sup>2</sup> UNDP Project entitled "Reduction of vulnerability of population and infrastructures in the South" from Terre Sud funded by Norwegian Government, phase 2 valued at \$5.7M (as per Head of Environment Unit, UNDP-Haiti, see b. page 11.

**E. PROJECT PREPARATION GRANT (PPG)**

Please check on the appropriate box for PPG as needed for the project according to the GEF Project Grant:

	<u>Amount</u> Requested (\$)	<u>Agency Fee</u> for PPG (\$)
• (upto)\$200k for projects up to & including \$10 million	<b>200,000</b>	<b>19,000</b>

**F.**

Type of Trust Fund		Focal Area	Country Name/Global	Grant Amount (\$)	Agency Fee (\$)	Total (\$) c=a+b
LDCF	UNEP	CCA	Haiti	\$100,338	\$9,532	\$109,870
GEFTF	UNEP	CC	Haiti	\$56,926	\$5,408	\$62,334
GEFTF	UNEP	SFM	Global	\$24,155	\$2,295	\$26,450
GEFTF	UNEP	BD	Haiti	\$7,304	\$694	\$7,998
GEFTF	UNEP	LD	Haiti	\$11,277	\$1,071	\$12,348
<b>Total Grant Resources</b>				<b>\$200,000</b>	<b>\$19,000</b>	<b>\$219,000<sup>3</sup></b>

The Government of Haiti has requested that UNEP execute the PPG. During the PPG, project execution arrangements, including the possibility of UNEP execution, will be agreed in consultation with prospective executing partners.

**PART II: PROJECT JUSTIFICATION<sup>4</sup>**

**A. PROJECT OVERVIEW**

**A.1. Project Description.**

The project is proposed to be implemented in the three south westernmost departments of the country (Department du Sud, Nippes and Grande Anse), where there is an urgent need to address the impacts of climate change while protecting fragile remaining mangrove forests, dry forests, coastal and marine ecosystems, and impoverished coastal communities who are at regular yearly risk of hurricanes, cyclones, flash floods, strong winds and rains.

The proposed UNEP implemented project interventions are sited in prioritized areas in the vulnerable southern coast, which are complementary and do not duplicate to UNDP and IDB GEF funded intervention sites (see attached maps). The project builds specifically on UNEP’s significant presence in the South Department and its seminal role in baseline efforts in the area. Furthermore, it is worth mentioning that it is at the initiative of UNEP that UN agencies (currently UNEP, UNOPS, and UNDP) have formed a coalition accompanying the Government of Haiti in a concerted and decentralized manner for the sustainable development and the reduction of vulnerability of the South Department of Haiti. This UN decentralized coalition is called Cote Sud Initiative (CSI).

<sup>3</sup> PPG value maximized through corresponding reduction in original PIF project budget (CC-flexible country)

The added value and innovation of the UNEP proposed project interventions can be seen in the components which tackle the inefficient vetiver value chain, damaging charcoal and lime production practices and rehabilitation of critical mangrove areas. The project will also expand on proven ecosystem based adaptation methodologies to enhance resiliency and reduce disaster risk to address the vulnerable South Department - as prioritized by the Government of Haiti and indicated partners, including UNDP. The project is uniquely integrating ecosystem based adaptation operations with climate change mitigation interventions as well as sustainable forest management and biodiversity conservation activities -- made possible by synergies across multiple GEF focal areas

As part of ongoing efforts to ensure that development in the region is accelerated, a number of development efforts are underway to develop the tourism sector, to reduce the isolation of the area and to provide local populations with access to services and economic opportunities. This includes large-scale investments in energy and infrastructure, which will provide vital basis to sustain economic recovery and growth in the area. In addition, in order to ensure that this development is undertaken in a sustainable way, the government has been encouraged to establish protected sites in the Department du Sud through diligent interventions by the UNEP office under the Cote Sud Initiative. A decree declaring the 9 marine and coastal protected areas in the South Department was enacted on August 26, 2013. However, there currently exists no capacity within the government to manage protected areas or deal with the anticipated impacts of climate change on communities and the environment. Given the inherent fragility of the ecosystem, which, for the region, remains in a relative pristine state, the need to protect environmental resources is stark. There is an urgent need to build institutional capacity at local level to enforce and monitor protected areas, to implement sustainable natural resource management schemes and to protect remaining biodiversity and forests. This will help to ensure that the ecosystem services that provide a basis for local livelihoods and resilience are maintained.

The communities concerned by this project are small, often isolated villages, who are living in and around the declared protected sites. These communities are living in a state of permanent extreme vulnerability due to their location (coastal zones, low-lying areas, small islands) as well as to their extreme poverty. Ensuring that their livelihoods are not only sustainable, but can be maintained in the face of anticipated climate change, is a major challenge. Failure to do so will mean that these communities risk disappearing or being dislodged by large-scale private sector development that is bound to arise as a result of the infrastructural developments in the area, who, if unmitigated, will over-extract remaining natural resources. Establishing a sustainable and resilient context for local livelihoods, in combination with stronger local structures for managing and enforcing rules on the exploitation of environmental resources, will become more important as this last vestige of Haiti's natural endowments are being opened up for development.

As it stands, Haiti is in a post-crisis situation and houses a large number of international organizations and projects. Many of the governmental institutions remain project- driven and long-term institutional capacity is scarce. The activities under this project are designed to promote the uptake and management by local institutional structures and communities. The proposed project takes an **Ecosystem-based Disaster Risk and Vulnerability Reduction** approach for the South Peninsula that combines interventions on biodiversity conservation and ecosystem services (through more effective management, rehabilitation and carbon sequestration efforts) , carbon emissions reduction especially from the significant vetiver value chain, and interventions designed to address the root causes of community vulnerability in coastal areas including unsustainable agricultural and fishing practices, intensifying the resiliency of ongoing initiatives and building institutional capacity development at the local level (for local government, CSO and private entities),

Moreover, by focusing the interventions in the three south-western departments, the project has a geographically and thematically targeted approach, is operating in an area that is very well understood by UNEP, and where UNEP is very well regarded by local stakeholders as a partner for development. Such an

integrated approach blends ecosystem-based adaptation principles with the key principles of Integrated Coastal Zone Management in and around protected sites, and therefore justifies a multi-focal area approach using funds from the LDCF, STAR allocations from four focal areas (LD, BD, CC), as well as funds from the SFM/REDD+ incentive.

#### **A.1.1. The global environmental problems, root causes and barriers that need to be addressed.**

##### ***Climate change and climate disasters***

Due to its location, the South-western coast of Haiti is exposed to extreme weather events and natural risks. These include hurricanes, cyclones, floods, droughts, landslides, earthquakes and tsunamis. The ability to plan, manage, adapt to and respond to these risks is very low and each year results in destruction of livelihoods, assets, illnesses and even deaths. These impacts affect fisheries and agriculture, the two main sources of livelihoods in the area, leading to severe negative impacts on food security and a general increase in poverty. Storms, hurricanes and floods are having major impacts, undermining economic growth and recovery efforts and causing widespread damage.

In terms of climate change predictions, it is indicated that temperatures will increase by 0.8-1 degree Celsius by the year 2030; and by 1.5-1.7 degrees Celsius by 2060<sup>5</sup>. Mean precipitation is anticipated to decrease with predictions that 50 percent of Haiti's surface area will become a dryland, while extreme weather events such as severe rainfall events leading to floods, are anticipated to increase in frequency. This is a dire warning as, in 2008 alone, Haiti was affected by four major hurricanes and storms. Communities often have barely recovered from one weather event when another one strikes again, and coastal sea-level communities, particularly on the South-western islands, are extremely vulnerable to these.

The impacts of these climate events can be managed. Communities that are not necessarily vulnerable to the vagaries of the climate without any recourse. In fact, climate impacts are in part exacerbated by human activity. With Haiti being the poorest nation in the Western hemisphere, most of the population derives its energy source from charcoal and fuelwood, which has provided an estimated 85% or more of the energy in Haiti for decades. Impoverished individuals have sought to sustain themselves by chopping down large amounts of forests, which leaves denuded mountains, resulting in high amounts of runoff and floods. In 1980, Haiti still possessed 25 percent of its forests, assisting the country to withstand rain events such as 1979's Category 3 Hurricane David without any loss of life. However, as of 2004 with only 1.5 percent of forests remaining, even strong tropical storms can cause devastating floods, leading to a large loss of life. For instance in 2004, 18 inches of rain caused floods that killed over 2500 people.

Precipitation is highly variable, with high levels of inter-annual variability, from excessive rainfall to water shortages. Floods are increasingly being recorded during the rainy months and rains marking the onset of the season arrive late, leading to a delay in the cropping time, which has a large impact on agricultural yield. Droughts during the dry season are longer and more acute.

In addition to precipitation-related climate change impacts, the communities in the low-lying coastal areas and islands of the South-western peninsula are also vulnerable to sea level rise (SLR), and it is anticipated that SLR could reach 16 to 62 cm by 2100<sup>6</sup>. This will likely lead to accelerated beach and coastal erosion, potentially leading to inundation of low-lying communities especially in areas lacking a vegetated buffer.

---

<sup>5</sup> Country Note on Climate Change Aspects in Agriculture, World Bank, 2009.

<sup>6</sup> as there is no reliable national data, these estimates are based on Cuban data.

Mangroves, who have traditionally assured some form of coastal protection, are also being depleted for charcoal production, and coral reefs are being depleted for lime production. This destruction of natural buffers is induced by a lack of livelihoods alternatives in the area, but is also aggravating the overall vulnerability of communities to coastal hazards.

According to an household survey done by UNEP in the South Department in 2011-2012, fuelwood is the main source of energy used, with 85% of the households reporting it as the primary source; 91% of households responded that it is either their primary or secondary source. Charcoal is a traditional fuel used for cooking by 52% of the households. While secondary to fuelwood, charcoal usage is still prevalent throughout southwest Haiti. Charcoal is mainly used in cities while in the country side the main source of domestic energy is fuel wood. Fuel wood extraction in the South Department communities is unsustainable and exponentially increasing. In addition, extractive practices are targeting mangroves and dry forest as the last remaining forest substantive stocks. The government plans for tourism development is based in the construction of road access to remote beaches, thus opening the access to mangrove and dry forest access. There are no regulations in place to control charcoal traffic. Of further concern are the inefficiencies in traditional production process for transforming wood to charcoal using archaic kilns. The process results low yields between 10% and 16%. Modern techniques could achieve a yield of up to 30% transformation, gaining more income for the producer with less wood.

Another contributing factor to deforestation and greenhouse gas emissions in the project's proposed area of intervention is the unsustainable production of vetiver, and in particular inefficiencies in the energy used for extraction of oil. The vetiver oil from southern Haiti is the worlds best in terms of quality. Selling the much sought-after roots, which are used to make perfume, vetiver harvesting and processing can provide an important source of income. According to sources, the vetiver industry directly or indirectly provides revenue to half of the population of the South Haiti department. However, poor vetiver farmers frequently harvest the crop during the rainy season or clear their entire field all at once. This has fatal consequences given that the plant's deep roots stabilize the steep slopes, and incorrect harvesting methods can trigger landslips that can sometimes bury inhabited areas and roads.<sup>7</sup> Vetiver distillation methods are particularly environmentally unfriendly and inefficient. Vetiver factories processes vetiver roots through a process of distillation. Vetiver roots are placed in large stills and steam is pumped into the chambers via a fuel oil fired boiler. The steam captures the oil from the roots, leaving an oil and water mixture that passes out of the stills in pipes. In addition to boilers and stills, the factory also has storage containers for the fuel oil necessary to run the boilers. The high prices of fuel oil contribute significantly to a high (and inefficient) production price of Haitian vetiver oil. Biomass waste from the harvested vetiver goes un-used and is commonly dumped in ravines or openly burnt. Regulations and environmentally-friendly distillation methods are lacking.

### ***Biodiversity loss***

Nine key biodiversity areas have been declared in the areas where this project will be implemented. Aquin, La Cahouane, and the Ile a Vache, house high levels of endemic and endangered flora and fauna. Haiti is home to nearly 245 species of birds, of which 73 are resident land birds and 155 are marine birds. Among the species of particular interest in the Southern peninsula, the Black Capped Petrell resides in the Macaya region with 1000 breeding pairs counted in 2008. Coral reefs, mangrove forests and sea grass beds also house marine biodiversity, including birds, that is currently under threat from habitat destruction. Coastal wetlands and mangroves support fisheries and as such form a basis for economic activities. A study undertaken in the context of the Mer-Sud Programme<sup>8</sup> performed a rapid ecological assessment of the marine environment around the Ile à Vache area and found that "heavy sedimentation is occurring in the

---

<sup>7</sup> [http://www.deza.admin.ch/en/Home/Projects/Selected\\_projects/Unique\\_opportunity\\_for\\_30\\_000\\_vetiver\\_producers](http://www.deza.admin.ch/en/Home/Projects/Selected_projects/Unique_opportunity_for_30_000_vetiver_producers)

<sup>8</sup> Ministry of Environment, UNEP, CSI, TNC. Habitat and Fisheries Baseline Assessment, September 2012.

coastal bays near the mainland and has significantly impacted remaining reefs. However, the reefs around Île à Vache experience fewer impacts of runoff and sedimentation associated with reefs closer to the main land.” In the less used areas, however, the study found signs of recovery in the reefs, particularly rebirth of the critically endangered coral reef, *Acropora palmate*. The study further indicates that recovery efforts in this area could be more successful thanks to the high nutrient content of waters, which indicates that the biodiversity of the South-western Peninsula remains viable, but threatened.

Fisher folk who do not have access to motorized boats or vessels that can support deep sea fishing, are using means that increase catches in smaller fish and that are leading to stock depletion in near-shore areas. Very few large fish, lobster, and conch can be observed close to shore; however, in areas slightly farther from the coast, fish numbers and coral cover increases. Unsustainable fishing practices include sunken “ghost” traps, and beach seine nets with a very small mesh size.<sup>9</sup> With the exception of a couple of communities, gillnets with a very small mesh size are the most common gear type in the South Department. Some communities use line, fish pots and beach seine respectively. This is a common pattern globally in artisanal (and commercial) fishing; as the fisheries resources decline and fish become fewer and smaller, ergo more difficult to find and harvest, gears used, and application thereof, are generally more effective but less selective in their capture. In many of the villages, important herbivores, such as parrotfish, are being caught in high numbers in very small sizes, which impacts on the ability of the fish to repopulate and also clean corals of algae, one of their most important ecological values. There is local evidence that points to the effectiveness of no-take zones for the restoration of stocks, however, with some areas showing a marked increase in the restoration of stocks following a period of “fallow”.

Mangrove forests are now being targeted for the extraction of timber, primarily for the production of charcoal, construction and bark for tanning. The remaining mangroves are composed of four species: *Rhizophora mangle*, *Avicennia germinans*, *Laguncularia racemosa* and *Conocarpus erectus*. Coastal areas also support “sea grape” (*Coccoloba uvifera*), Icaque (*Chrysobalanus icaco*), and “patate du bord de la mere” *Ipomoea pes-caprae*. The diversity of tree species in the mangrove and on the coast also supports diversity of bird and fish species, among which the most exploited, are crabs, langouste, *tritriss*, shrimp, kipper, pink fish, parrotfish, yellowtail snapper, sponge crab, ray, and Kong fish.

The extraction of sand from beaches for construction is worsening erosion and impacting the hydrology and morphology of the coastal ecosystem. It is also negatively impacting the possibility of ecotourism, which, with the impending opening of the area through major roads, would provide a unique economic alternative for residents of the area. Coral mining for lime production has also been observed, a growing trend that will negatively impact marine biodiversity.

One of the challenges in Haiti is that the National Biodiversity Strategy Action Plan was never completed due to the suspension of activities by the World Bank in May 2000. There is also no complete inventory of endemic flora and fauna. While the key biodiversity sites have been identified, further work is necessary to document all the species at risk and their role in supporting local communities.

### **Land Degradation**

Land degradation poses a further significant challenge to livelihoods in the southwestern peninsula. The problem is due to a combination of natural and human factors: with most of Haiti classified as having high erosion risk due to the nature of soils, cultivation on slopes, deforestation and severe weathering lead to increased and accelerated land degradation. Erosion rates in the broad hydrographic basin of Aquin/St-Louis show rates of 12 to 100 tons per hectare per year<sup>10</sup>. Despite this fact, in the areas concerned by this

---

<sup>9</sup> Ministry of Environment, UNEP, CSI, TNC. Habitat and Fisheries Baseline Assessment, September 2012.

<sup>10</sup> Plan de co-gestion de l’unité hydrographique Aquin/St-Louis du Sud, 2012.



project, only 12% of land parcels currently implement some form of soil conservation (including vegetative barriers or structures to impede erosion). Land fragmentation exacerbates erosion by creating disincentives for smallholders to implement anti-erosion measures. While soil fertility appears not to be a major constraint<sup>11</sup> in the area, the main problems are related to deforestation or removal of soil cover, leading to a decrease in nutrient content and soil moisture retention.

Almost 73% of the area is under some form of agricultural production, including annual food cropping (pigeon pea, maize, sorghum, plantain, and black bean), agroforestry, and pasture. The percentage of parcels located on the sides of hills averages 44%. Furthermore, the proliferation of multiple, small sized parcels, often far from the households, contributes to a landscape of fragmented parcels that is challenging for larger-scale sustainable land management and landscape planning. The lack of land management practices and the over-exploitation of small parcels, often located on hillsides, contribute to both low yield rates and susceptibility to erosion. This is particularly true in the cultivation of food crops as well as cash crops such as vetiver. One of the most widespread agricultural practice inside and outside the protected areas in the region (central municipalities of the South Department) is vetiver production, which is unsustainably extracted (extraction targets the roots, where the oil is concentrated, which leaves the soil vulnerable to erosion). When planted and harvested properly, vetiver is beneficial for the soil and will assist in reforesting denuded lands; as a potentially important cash crop, it possesses great potential for income generation in Haiti (Haiti is already the largest producer of vetiver oil). While vetiver has the potential for erosion control when planted by conservationists, it also has the potential to upturn hillside soil when planted for essential oil production. Much of this erosion possibility depends on the period of harvest, the rainy season (also the low season) being much more damaging than the dry season. Planters are aware of the environmental impacts of this business, evidenced by multiple strategies employed to maintain the soil on the hillsides from which it is harvested. The decisions of how and where vetiver is planted are intimately related to the commodification of vetiver, and the geographic proximity to areas of oil production. Vetiver harvesting is potentially environmentally damaging due to: inappropriate timing of harvesting; harvesting entire patches at same time; hilly planting areas; loss of topsoil.

Reversing the trend of forest cover loss will be a key target for the region, as only 4% of the land area has dense forest cover. The initial challenge will be to increase productive and sustainable forms of land use on slopes greater than 15%. These include primarily forest cover, agro-forestry, woodlots, or open woodland. In addition, the ongoing rates of deforestation and the removal of land vegetative cover contribute to creating unsustainable levels of emissions for Haiti, which could be addressed under sustainable forest management schemes.

### **A.1.2. The baseline scenario and any associated baseline projects**

The baseline situation in the Southwestern Peninsula is characterized by the following conditions:

**Small, isolated, very poor communities** extracting their livelihoods from agriculture and fisheries, at the expense of the natural ecosystems. The poverty levels are high in this area and in 2009; the GDP per capita was estimated at \$330, which is half of the national average. Food insecurity is also very high in this area, at 45.8 percent. Haiti's food production has not been noted to increase since the 1960s and yield rates are 50% lower than neighbouring Dominican Republic. An estimated 90% of the population in the region reports lacking adequate food for at least one month, despite the predominance of agriculture (40%) and fisheries (30%) in local livelihoods. Agriculture faces tremendous challenges, including lack of access to land and inputs, low yields and productivity, and environmental degradation; fisheries also face similar challenges

---

<sup>11</sup> Integrated Baseline Study, 2012

with overfishing near the costs due to unavailability of appropriate tools for off-shore fishing. Access to basic services is low, including access to clean water, with a large majority of households using contaminated water sources. This leads to a high burden of diseases, particularly waterborne diseases and diarrhoea, and particularly among children. In addition, the difficult terrain and lack of roads makes access to medical services also difficult in the area. In low-lying areas, particularly small islands, communities are lacking even the most basic assets for self-protection in cases of environment-related disasters, leading to unnecessary losses of life and property at every event.

There are **low levels of investments and infrastructure**, in the area of proposed interventions, leading to limits on economic development. This is due to the high concentration of infrastructural investments in and around urban centers, and a history of investment concentration in the central part of the country. Though there are many initiatives in the country to assist with recovery and economic growth, the area has long been ignored by development efforts. As a result, while it has remained somewhat untouched by large scale touristic or agricultural development, any future opening up of the region for development runs the risk of damaging an already fragile environment. Recent investments by Norwegian and other donors include the dissemination of small-scale village solar energy mini-grids, village-level investments in water and sanitation, and the construction of major new roads opening up the inaccessible areas of the Southwest peninsula. In the absence of local government and community capacity to take charge of their own development, large private investors could dislodge local communities by over-exploiting natural resources, rather than sharing development benefits. There are nevertheless opportunities for non-agricultural growth in the area, particularly tourism that, if well managed, could lead to significant opportunities for development for communities.

There is a **very high natural vulnerability** to hurricanes, floods and earthquakes due to the country's location and physical features. The hilly terrain of the area is a major contributor to erosion risk, which is compounded by poor soil management practices, deforestation and unsustainable agricultural methods. In response to the numerous natural disasters that have affected the country over recent years, and the recognition of the country's vulnerability to these disasters and to climate change, there are numerous investments and interventions on the ground, although these are not operating in chosen sites. Most of the projects are addressing urgent development and recovery needs including the rehabilitation of basic infrastructure.

The baseline upon which this project will be building is established by the Cote Sud Initiative (CSI), funded by the Norwegian government with UNEP support. The CSI is a large-scale programmatic framework comprised of a number of sub-programmes and projects. Conceived as a 20-year sustainable development initiative for the South Department of Haiti, the CSI was launched in January 2011 and is coordinated by a Partnership of organizations including government institutions. Investments are planned and coordinated using a programmatic approach, with ongoing activities aimed at promoting food security, access to basic services such as water, sanitation, health, and energy, as well as some support for sustainable natural resources management, particularly in the food crop and livestock sub-sector.

Its overarching goal is to improve the coordination, quality and targeting of international sustainable development investments in the Sud Department it is implemented through the coordination of UNEP, UNDP and UNOPS. At the national level, CSI operates under the Ministry of Planning and External Cooperation (MPCE) and accompanies sector ministries in fulfilling their mandates (Environment, Agriculture and Energy Security). On the international level, CSI works in collaboration with the European Union and Norwegian government. CSI is built on sub-programmes which include: CSI Mer Sud, CSI Terre Sud, CSI Route Sud, CSI Energie Sud, and CSI Gouvernance Sud. Together these programmes provide a baseline of 13.3 million US\$ in programmes and projects implemented by UNEP. CSI is a programme which was developed in the context of a 20 year vision but is not funded for 20 years. The UNEP implemented segment of CSI phase 1 was costed at US\$ 8 million (2011-2012) and phase two US\$ 13,3 (2013-2015). At

present there are no ongoing activities supported to promote sustainable charcoal. The CSI project is providing biodigester construction: training to the University of Notre Dame Les Cayes and the Atelier Ecole Camp Perrin <http://aecp-haiti.org/ancien/index.htm>. Additionally there is a project for biodigester construction in schools. With respect to solar energy, full electrification of 10 hospitals with solar panels was already completed in the South Department. Hybrid micro-grids (solar and other sources) is planned for 3 municipalities of the South Department.

**a. Mer Sud** seeks to promote marine ecosystems regeneration and sustainable management of marine resources while improving the fisheries market, diversifying fisheries products and developing coastal community-based eco-tourism approach. This project is based on the ecosystems based approach to support rural and coastal communities to evolve from unsustainable livelihoods to more economic and sustainable livelihoods. It is implemented through two sub-projects: “MerSud project” (US\$, 66 million) whose objective is to help rural coastal communities make the switch from poverty and unsustainable livelihoods to more economically productive livelihoods; and “Promoting Improved Ecosystem Management in Vulnerable Countries for sustainable and disaster resilient development”, a multi-country project on Eco-DRR led by UNEP with demonstrations on integrated coastal zone management in Haiti (US\$300,000 in Haiti).

**b. Terre Sud** seeks to reduce the risks to infrastructure and development assets posed by natural hazards and environmental degradation in the southwestern watersheds. This programme is coordinated by UNDP to accompany the Ministries of Environment and Agriculture. It is implemented through two sub-projects: “Reduction of vulnerability of population and infrastructures in the South” (UNDP) (US\$6,8 million in phase 1 and US\$ 5.7 million in phase 2), and “Agro-forestry and Landscape Rehabilitation” (UNEP) US\$(1.23 million). The Reduction of vulnerability of population and infrastructures in the South project is intending to perform some infrastructural rehabilitation and land reclamation initiatives, such as gully reclamation, water retention dykes, dredging and cleaning of irrigation canals, along with land use planning in agricultural and agro-sylvo-pastoral areas, some reforestation (50ha) and the creation of community-based watershed management committees. This latter project is providing direct co-financing to this proposed initiative.

**c. Energie Sud** seeks to increase access to energy for rural communities. This programme promotes access to portable energy sources, enhances educational awareness and seeks to develop electricity grids and the production of renewable energy. The programme is coordinated by UNEP, with the Ministry of Energy Security and is implemented through one project “Haiti Sustainable Energy – South Department NMFA Project”. (US\$7.6 million)

**d. The Route Sud** programme is coordinated by UNOPs and seeks to build and rehabilitate main roads to increase access to remote and isolated communities. The programme also rehabilitates docks and secondary roads to protect people from floods and increase access to services and markets. It is mainly implemented through the “Emergency Interventions and Infrastructure reconstruction in the South Department” project. (US\$ 3 million).

**e. Governance Sud:** The Development Cooperation Platform, coordinated by UNEP, seeks to support the Ministry of Planning and municipalities in coordinating their activities, monitoring development progress in the South Department, establishing a platform for discussion on funding activities for donors. It is mostly implemented through one project, the “Development Cooperation Platform Project”. This platform provides a useful avenue through which development partners regularly meet and discuss their ongoing and planned initiatives (US\$700,000).

**A.1.3. The proposed alternative scenario, with a brief description of expected outcomes and components of the project.**

The proposed project aims to promote climate resilience and sustainable management of ecosystem services in the South Department of Haiti. With the value added of this project: (1) resilience and sustainability will be built into the investments being made by the baseline projects; (2) enforcement and monitoring systems will be enhanced in protected areas; (3) sustainable options to charcoal production will be put in place as new infrastructure, roads and development opens up the areas of La Cahouane and Aquin; (4) mitigating for and adapting to climate change impacts will be made possible through recognition and safeguarding of ecosystem services ; and (5) vulnerability of local populations acknowledged and addressed.

The long-term solution to address challenges in the South-western districts is to ensure that healthy ecosystems support livelihoods and provide protection from disasters and climate change. This starts with a network of formally protected terrestrial and marine areas where natural resource extraction is carefully calibrated and managed, to establish a first line of buffering. The next step is to address unsustainable natural resource uses in the broader ecosystem (i.e. beyond protected sites) so that the whole area is sustainable and so that practices outside protected areas do not have undue impact on the protected systems. This system must naturally be achieved with the full participation of, and in benefit to, local vulnerable communities. The ideal solution therefore promotes an integrated approach that addresses the vulnerability of local populations to climate disasters and climate change, seeks opportunities for investing in environmental goods and services and reducing GHG emissions, and preserves the role of ecosystems in mitigating and adapting to climate change. The Ecosystem-based Approach to Disaster Risk and Vulnerability Reduction proposed in this project provides an integrative framework for addressing multiple interrelated global and local challenges, and therefore for generating global environmental benefits and adaptation benefits.

The **barriers** to achieving this solution are:

1. *Low/no capacity to establish, manage, monitor and enforce protected areas.* A system of well managed protected areas in the south department and in the southwest region could serve as an important tool for reducing poverty, vulnerability to disasters, and vulnerability to climate change. Such a system would also serve as a mechanism to maintain ecosystem services that will support continued livelihoods, including agriculture and fisheries. In the longer term, a well-managed system of protected areas could also serve as a basis for supporting non-agricultural growth in the area, through the exploration of nature-based tourism. The potential areas for protection have been identified, and the Haitian government is taking the necessary steps for their legal establishment.

However, there is currently limited capacity within the Haitian government to go beyond this formal designation. At an institutional level, the Ministry of Environment and other ministries concerned all need to make provisions for supporting the development and implementation of protected areas: this could include designating and recruiting skilled staff, allocating funding, revising mandates and agreements. Enforcement and monitoring capacity are also lacking to make the protection of the sites effective: this includes technical capacity for monitoring as well as the availability of means to establish proper participatory enforcement systems in collaboration with local populations. In particular, the ministries and local authorities participating in the management of protected areas require added support to address challenges posed by the opening up of the sites through ongoing infrastructural development, to avoid creating favourable conditions for the unsustainable exploitation of protected area resources (wood, coral, sand).

In addition, the government and the local population need assistance in devising sustainable natural resource use practices within the protected areas, to ensure continued and sustainable livelihoods, and to avoid competition over resources. This applies mostly to smallholder agricultural producers (food and cash crops, e.g. vetiver), as well as to users of forest products, whose unsustainable practices could undermine

the viability of the protected ecosystems. Local capacity for sustainable land and forest management is very low, due to the high costs and risks of implementing different practices on small plots or at the household level, or to the high costs of alternative sources of energy and construction materials.

*2. Lack of access to sustainable, resilient development options in the broader ecosystem.* The barrier above is compounded in areas outside of the protected areas by the extreme poverty and destitution in which local communities are currently living. High levels of dependency on ecosystem-based and climate-sensitive livelihoods have maintained local populations in a situation of precariousness, while the natural vulnerability of the region exacerbates their exposure to disasters. As a result, populations are limited to the unsustainable uses of natural resources for basic livelihoods. This has resulted in environmental degradation, which in turns undermines any possibilities for growth from the ecosystem. Furthermore, the environmental degradation has the accelerated effect of increasing physical vulnerability by removing buffer areas.

Local populations living in vulnerable sites beyond the protected areas mentioned above have no capacity to explore alternative livelihoods sources due to the high level of risk they are already facing. Reducing immediate threats to lives and livelihoods by regenerating the coastal ecosystem, ensuring proper early warning, and basic emergency infrastructure would help provide a first level of safety, while the exploration of alternative development options that seek to invest in environmental goods and services and reduce GHG emissions, will help ease pressures on the natural ecosystems and on communities themselves. Communities at present lack the organizational structures, the technical tools and know-how, and the opportunity to explore alternatives and the rare promising private sector ventures (e.g., pharmacocosmetics, tourism) that could contribute to growth in this area are also constrained by technical and institutional challenges.

This project will promote the sound management of coastal ecosystems in the South-western Peninsula of Haiti in order to reduce local communities' vulnerability to climate change, protect and conserve remaining ecosystem services and biodiversity, reduce GHG emissions, and sustainably manage coastal lands and forests. Interventions under this project are designed and coordinated so as to leverage multiple global and local environmental and adaptation benefits in the targeted areas, and to ensure that future development in the area is undertaken along a sustainable and resilient pathway. The project therefore proposes to address these barriers as follows:

**Component 1 – Ecosystem Sustainability and Resilience in the identified protected areas of the South Department (CCA-1 -2, CCM-5, SFM1-2, BD-1, LD-1)**

In line with the Ecosystem-based Approach to Disaster Risk and Vulnerability Reduction, the first component of the project aims at creating and protecting ecological buffer areas that will support economic growth as well as resilience in the South Department. This front line zone will be comprised of a protected areas system comprising eight terrestrial and marine areas of national and global significance, which was identified and delineated in 2012-2013 with the support of UNEP. UNEP supported the Government in legally declaring these protected areas based on extensive ecosystem and socio-economic assessments (e.g. Habitat and Fisheries Baseline Assessment, September 2012 & Integrated Baseline Study – Ten Communes of the Southwest Coast, South Department, September 2012). The following protected areas have been prioritized for GEF intervention due to their high biodiversity value, economic relevance and vital role in disaster risk reduction: the Ile à Vache National Park, Port Salut Protected Landscape, 5 habitat/species managed protected areas, and one National monument. Protected area marine and coastal biodiversity conservation objectives and restoration/preservation of ecosystem services will be achieved through improved management practices. This component is complemented by vetiver harvesting improvement, within the Port Salut Protected Landscape outlined in Component 3. It is of note that with the exception of

Ile a Vache National Park with restricted productive activities, the other protected areas fall under IUCN categories IV and V which are flexible management categories and include productive activities.

**Outcome 1.1 Establishment and effective management of Ile a Vache National Park and Port Salut Protected Landscape** will be achieved through the development and implementation of management plans and supplemented by cross-site strategies to protect key biodiversity hotspots that also provide protective ecosystem services (reefs, mangroves, sea grass beds, dunes) by acting as barriers against sea level rise and coastal erosion. Based on assessments of climate vulnerability and impacts on the protected areas, the project will support the development of management plans that include resilience-related targets and criteria. The project will support the government in making the necessary institutional changes to support the good management of these protected sites in consultation with local communities living within their boundaries.

**Outcome 1.2 Improved forest land practices in the terrestrial sector of the five marine/coastal protected areas resulting in GHG emissions reductions.** There are remnants of riverine forest which are located among vetiver fields in Port Salut as well as in the areas of La Plaine de La Cahuane and Ile a Vache (where additional unsustainable agricultural practices have reduced forest cover). The project will introduce sound Land Use, Land-Use Change and Forestry (LULUCF) management practices both within the forest land and in the wider landscape. This will include working with local smallholders to support the creation of producer cooperatives, so as to facilitate larger-scale anti-erosion and SLM investments. Vetiver and Fruit trees will be planted to deforested areas and a system of rotation will be established to maintain anti-erosion values and carbon stocks, which will be specifically measured. In addition, 460 hectares of fast growing climate resilient native trees will also be planted in deforested areas for the sustainable harvesting of wood for charcoal production. While baseline efforts continue towards rural electrification, and in the absence of a viable sustainable alternative, charcoal will be produced while avoiding complete deforestation. Project supported activities are directed to kilns technology improvement and also more important promoting the establishment of fuel wood plantations using fast growing native species in neighboring areas of the recently declared protected areas which harbor the most important mangroves ecosystems in the South Department and also restoring mangrove ecosystems. No take zones and protection plans will be developed with communities and the private sector for mangroves, the remaining strands of coastal forests, along with the appropriate community-based enforcement capacity. In order to identify viable alternatives to mangrove deforestation and coral mining, the project will also explore the production of affordable combustibles made from agricultural wastes and alternatives sources for lime production and lime use in protected areas.

The project will also seek to develop sustainability standards and norms to govern the collection and transportation of goods and services extracted from the vulnerable and protected areas, as these areas become increasingly open through new roads and infrastructure. Enforcement and monitoring capacity will be strengthened in partnership with the ministries responsible for enforcement of protected areas. Awareness campaigns will be organized to target the formal and informal private sector, to limit extraction of natural resources in newly accessible areas. This activity will also be supported by incentives provided to communities for sustainable livelihoods under Component 2.

**Component 2 Disaster Risk and Vulnerability Reduction through Ecosystem management in the broader southwest peninsula landscape (CCA1-3, CCM-2, CCM-5, LD-1)**

Whereas the first component uses protected areas as a first line in the maintenance of ecosystem services (protective and provisioning), the second components targets the vulnerable communities living within and outside protected sites to address disaster risk and vulnerability to climate change.

**Outcome 2.1 Increased ecosystem and livelihood resilience** will be achieved through rehabilitation of degraded coastal ecosystems. This will include the rehabilitation of forests, mangroves and reefs, and the development of community-based management and enforcement schemes. This will help ensure that ecosystem continue to provide protection against floods and erosion, while supporting key productive functions in the broader ecosystem, such as soil moisture retention, erosion control and nutrient cycling. This area of the Southern peninsula inclusive of the landscapes and seascapes in coastal zones of the Departments of Sud, La Grande Anse and Nippes is the most exposed territory to hurricanes in Haiti. These areas harbor a substantive number of highly vulnerable communities such as fishermen living in isolation in remote coastal areas and in small islands and cayes, living in precarious houses at sea level. These interventions will be based on detailed coastal vulnerability assessment (see Outcome 2.2).

The project will also support good ecosystem management as a way to support sustainable and resilient livelihoods in communities of Aquin, La Cahouane, Pointe Abacou, Fonds des Cayes, Marie-Jeanne and St-Louis du Sud. Building on activities undertaken under Outcome 1.3 to promote sustainable charcoal production from sustainable woodlots, the project will also support similar community-based plantation management, in addition to exploring alternative sources of livelihoods and energy. This will include exploring avenues such as:

- Value added in the fisheries sector as well as training for sustainable fisheries,
- Eco-tourism (through development of ecotourism investment plans in and around the marine protected areas of Ile a Vache and surrounding Islands, St-Louis du Sud and La Cahouane,
- Bee-keeping and other ecosystem-based alternatives, including diversification in and out of climate-sensitive sectors.

**Outcome 2.2 Strengthened local capacity to anticipate and rapidly respond to extreme weather events** targets the extremely vulnerable communities living in low-lying coastal areas and small islands of the southwestern peninsula. In support of future development efforts, the project will undertake a detailed community-based coastal climate/disaster vulnerability assessment using methods such as Data-Interpolating Variational Analysis (DIVA), to provide recommendations on short-, medium-, and long-term adaptation and disaster risk reduction measures (including Ecosystem-based disaster risk reduction measures) that can be integrated into local development plans. The project will also support training for communities, local authorities, and the Department of Civil Protection in DRM, Climate Risk management and specifically in Eco-DRR for coastal and island environments. This will allow the project to strengthen these stakeholders capacity to disseminate and react to early warning information which, to date, has not been made available to local communities in a timely fashion. Disaster management and communications protocols will be updated to include issues specific to small islands and cays and local communities will be trained in early warning procedures and response.

Executing arrangements that take into consideration the capacity constraints and priorities of the Haitian government at national and local level will be developed during the project preparation phase.

### **Component 3. Reducing land degradation and climate change impact by introducing improvements in the vetiver value chain.**

With the vetiver industry directly or indirectly providing revenue to half of the population of the South Haiti department, unsustainable harvesting and processing techniques provide substantial opportunities for efficiency improvements as well global environmental benefits in the areas of land degradation and climate change.

#### **Outcome 3.1 Improved Practices Adopted in the Vetiver Value Chain within the Port Salut Protected**

**Landscape.** As part of efforts to sustainably manage resource extraction within protected sites, the project will work with local producers to promote sustainable production and extraction of vetiver, including vetiver harvesting improvement, land and water use efficiency through larger cultivation units in pilot agricultural sites within the Port Salut Protected Landscape outlined in Component 1. Support will be provided for planting vetiver for improved soil conservation in areas under management by cooperatives. A Study to study the carbon sequestration values of vetiver cultivation will also be included.

**Outcome 3.2. Vetiver Supply Chain Efficiencies and GHG Emission Reduction.** In an effort to curb large-scale unsustainable uses of natural resources in the broader ecosystem of the southwest peninsula, the project will also engage with the larger vetiver producers to help review practices in factories and to recommend methods for improved production, to promote sustainability and resiliency. These will include methods to reduce energy use through energy efficiency and the use of renewable energy sources. In a pilot initiative the project will identify volunteer vetiver producers who wish to renew their installations and production equipment, to demonstrate sustainable production practices. The project will also conduct a feasibility study on new uses of vetiver by-products and wastes, including energy generation.

**A.1.4. Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF/SCCF and co-financing.**

The incremental and additional benefits to be generated by this project cut across the Climate Change, Land Degradation and Biodiversity Focal areas, as follows:

**Component 1 – Ecosystem Sustainability and Resilience in the identified protected areas of the South Department.** Under the business as usual scenario, the 8 sites identified as priorities for protection in the baseline Cote Sud projects outlined<sup>12</sup> will be established officially but lack the capacity and resources to effectively manage the protection of the sites. The Government of Haiti will not be able to enforce their protection, and the sites will be gradually left to the unsustainable exploitation of local communities and the informal private sector, who will gain increasing access thanks to the opening of new roads in the area. As a result, the communities residing in the sites will not be able to implement sustainable natural resource management practices, leading to a further degradation of the environment, and as a result, to their subsequent impoverishment and increased exposure to climate change. The region will miss an important opportunity for sustainable economic development. Land use practices will continue to lead to unabated land degradation, soil fertility loss, erosion, and to the emission of GHGs through deforestation and removal of soil cover.

Under the GEF alternative, with GEF financing, the 8 sites will benefit from appropriate management plans and the government will acquire the capacity to monitor and enforce the protection of the sites. This will include an analysis of the impacts of climate change on the proposed sites, to ensure that their management is in line with anticipated climate change, and is adaptive. In addition, the project will develop cross-site management strategies for targeted ecosystem features, such as reefs, mangroves, sea grass beds and sand dunes, all of which serve as ecological buffers against sea level rise and climate induced disasters. The government, communities and local authorities will acquire the necessary tools, knowledge, data and awareness to adequately manage the 8 sites, and to take advantage of sustainable and resilient economic development opportunities within their boundaries.

Also under this component, alternatives to the most unsustainable land use practices, including mangrove deforestation for charcoal production and coral mining for lime production will also be explored. Codes of use for land management and logging, as well as a charter governing the use and transport of goods from

---

<sup>12</sup> Not to be confused with the UNDP-GEF project intervention areas, which are different.



protected areas will also be developed, in an attempt to raise awareness among local producers and to curb illegal and unsustainable natural resources extraction within the protected areas. This component is linked to Component 3, whereby conservation of vegetative cover through sustainable tree and vetiver harvesting activities, will enhance sustainable land use practices in the areas in and around the 8 sites.

Under the Adaptation alternative, strengthened enforcement capacity and management effectiveness of coral reefs, mangrove forests, sea grass beds and sand dunes will enhance ecological buffering against Sea Level Rise (SLR) and climate induced disasters. The establishment of climate adapted management plans will ensure that resilience is built into development efforts at the medium and long-term. Restoration of deforested areas with fast growing species will provide alternatives to conventional charcoal production. Altering plant/tree diversity, row spacing, planting time, introducing species resistant to climate stress, and increasing soil cover will also enhance the resilience of land-based ecosystem services to climate change. Vulnerable communities will also benefit from increased efforts to include them in the existing early warning system, and to construct basic emergency sheltering structures, so as to protect lives and livelihoods assets in cases of emergencies. This will also increase the level of climate-related information that is transmitted to the local communities, enabling better preparedness.. The Civil Protection Department, and other DRM stakeholders will be trained to ensure that disaster management protocols and communications tools are inclusive of the most vulnerable communities.

## **Component 2 - Disaster Risk and Vulnerability Reduction through Ecosystem management in the broader southwest peninsula landscape**

Under the business as usual scenario, vulnerable communities living beyond protected areas will continue to be isolated and extremely exposed to natural hazards, disasters and the impacts of climate change. Livelihoods will continue to dwindle while the ecosystem becomes increasingly degraded, leading to further vulnerability. This will also encourage communities to draw upon the protected areas for resources, further undermining the system that is meant to create an ecological buffer for their protection. Remaining coastal forests and mangroves, shorelines and reefs will continue to degrade, leaving the entire area entirely exposed to the impacts of climate change, including floods, landslides, erosion, and sea level rise. Basic protection from hurricanes and storms will become eroded, leaving local low-lying communities no other choice but to join the millions of internally displaced people in the country. Without GEF intervention, livelihoods will continue to provide very little income and nutrition, the productivity of agriculture and fisheries will continue to diminish, leading to a further cycle of impoverishment. Communities living in the areas targeted will continue to be excluded from early warning system, which at the moment does not relay warning information.

Under the GEF alternative of this component, community planning will ensure full participation in the management and enforcement aspects of coastal forest ecosystems which will result in both GEF and Adaptation benefits.

Under the Adaptation alternative the local communities living in the coastal areas of the three southwestern districts will benefit from risk reduction measures that will also re-generate the ecological services that form the basis of their livelihoods. The project support for the rehabilitation and management of mangroves, and forests will serve both protective and productive functions. The communities in Aquin, La Cahouane, Point Abacou, Fonds des Cayes, Marie Jeanne and St-Louis du Sud will also benefit from project support in exploring alternative sources of livelihoods that generate increased income and nutrition while protecting environmental resources. This could include providing value-added for sustainable fisheries products, agro-forestry, beekeeping, eco-tourism and other alternatives identified in consultation with the communities.

Under the adaptation alternative, investments in natural structures will lead to dynamism where structures

can adapt to changing climate conditions. While hard engineering defense structures (such as sea walls) may not be adequate in safeguarding communities, particularly during hurricanes and cyclones, investing in ecosystems and Eco-DRR can buffer against climate hazards while being more sustainable and cost-effective in the long-run. Coastal vegetation, coral reefs and sand dunes can protect against hazards such as wave impact. Wetland ecosystem restoration can reduce the risk of floods and regulate water flow. Mangrove restoration will lessen the negative impacts of sea level rise and coastal storms. ECO-DRR investments under the adaptation alternative would also help reduce people's vulnerability in that agriculture and water resources would be less prone to saline intrusion and coastal infrastructure less vulnerable to storm surges.

**Component 3 - Reducing Land degradation and climate change impact by introducing improvements in the vetiver value chain.** Vetiver is one of the most important traditional agriculture practices in the project intervention area and one of the main drivers of soil depletion and land degradation. Sustainable vetiver production has the potential to become a beacon of soil conservation practices and industrial supply chain sustainability if properly conducted.

Under the business as usual scenario, land management practices will continue to result in unnecessary erosion. Oil production factories will continue to operate in an energy efficient manner and the potential of biomass produced as a by-product of the industrial process go unrecognized.

Under the GEF alternative, support will be provided for the creation of agreements with land users, in particular vetiver cultivators, on the improvement of land use practices that can help conserve soils and mitigate GHG emissions. Degraded productive lands will be rehabilitated using agro-forestry approaches, and a system will be developed for sustainable tree and vetiver harvesting, that conserves vegetative cover. Partnerships between the public and private sector will enable local producers to establish production cooperatives that will enable economies of scale for land use planning and management, and will assist with the introduction of resilient and sustainable agricultural practice (including for vetiver production) that will reduce wastes, limit energy use, and promote sustainable waste management. Incremental financing will be provided to innovate new technologies, in this case, focusing on the vetiver value chain, which is one of the most promising economic sector in the region, to move from unsustainable production practices to low-emissions, energy efficient and land-efficient practices. This will entail working with qualified volunteer industrial producers to acquire and install emissions reduction equipment, and to work with local communities to devise more sustainable land use practices in vetiver cultivation. Low carbon vetiver will be a combination of improved planting and harvesting practices, improving energy efficiency in factories and promoting the use of enormous amounts of biomass currently wasted that will be used as fuel for biomass power generation. This will bring sustainability as a new source of energy that up to now is not used. Essentially, this will open new markets, create green jobs and as stated in the project document, regulations will support those positive changes.

Under the Adaptation alternative, support will be provided to cooperatives to plant vetiver for soil conservation purposes in management areas. Planting vetiver will also prevent soil erosion, provide soil cover and contribute to soil conservation. Soil and organic particles can also be accumulated behind vetiver hedges to capture run-off and prevent excessive soil erosion. This will help ensure the resilience of ecosystem services against flooding and conserving soils

#### **A.1.5 global environmental benefits (GEFTF, NPIF) and adaptation benefits (LDCF/SCCF);**

**Climate Change Adaptation:** The project will provide additional adaptation benefits to the communities living in and outside of protected areas in the three southwest districts. Adaptation benefits will be derived from ecosystem rehabilitation and Eco-DRR measures, whereby the coastal ecosystem's protective functions will be restored and protected. The rehabilitation of mangroves, beaches, shorelines, reefs and forests are

all expected to lead to increased resilience and reduced exposure to extreme events. In addition, communities will benefit from added adaptive capacity through the promotion of sustainable agricultural practices, that will lead to increased productivity, and through the exploration of alternative livelihoods that will diminish their reliance on climate-sensitive sectors (pharmaco-cosmetics and eco-tourism) or through interventions designed to increase the productivity of existing livelihoods (fisheries, crop and livestock). Activities to target men's and women's livelihoods will be pursued differentially so that benefits can be accrued by both and that gender-specific vulnerabilities can be addressed.

**Climate Change mitigation:** By working with the sectors that have the most potential to mitigate emissions in the areas concerned the project expects to lead to carbon benefits of 421,255 tC Co<sub>2</sub> annually with total potential of 2,106,276 tons CO<sub>2</sub> over 52 years. The project will create carbon sinks through intensified management of 9,910 hectares of forest lands, establishment of woodlots in 460 ha and restoration of mangroves in 400 ha. Alternatives to high GHG emissions caused by charcoal production practices will also be explored with local communities to reduce local emissions. Preliminary calculations show that through energy efficiency and improved practices adopted in the vetiver value chain within the Port Salut Protected Landscape (7000 ha), could lead to additional carbon sequestration values of up to 66,500 tC per annum. Emissions will be reduced by working with vetiver producers to increase energy efficiency and to identify alternative sources of energy for use in the production process. Studies conducted in other countries<sup>13</sup> show that the soil carbon stock under vetiver cultivation can reach 71.2 tons C/ha and that the carbon sequestration potential under vetiver cultivation can reach 95.6 tons C/ha. The project will explicitly measure carbon stocks in existing and remaining forests and in vetiver cultivated lands, with a view of assessing the carbon sequestration potential of these areas.

**SFM-REDD:** the project will lead to the restoration and sustainable management of 9,900 ha of forests, restoration of 400 ha of mangrove and reforestation in 460 ha of denuded lands, as well as the sustainable management of agricultural lands under vetiver cultivation (in the Port Salut Protected Landscape, approximately 7000 ha). The project will also lead to the development of sustainable land and forest management practices by local communities and the private sector, in and outside protected sites.

**Biodiversity:** The Project will assist in moving forward in the program to implement sustainable management of National Parks through: (i) supporting the formulation of protected areas management plans; (ii) supporting the development of capacity and an implementation mechanism to manage the sites, (iii) providing the tools for inventorying, managing and monitoring; and (iv) and the construction of basic park infrastructure. Gains in capacity will be measured through increases METT scores over project timeline. Select ecosystem service/biodiversity indicators (eg. indicator species) will be selected and monitored. The resulting protected area management models and experiences are intended to be shared and replicated in other parts of Haiti. The project will also help protect endangered species and local biodiversity through the protection and rehabilitation of fish breeding sites, coral reefs and other marine biodiversity hotspots. The total area of intervention encompassed effective management of Ile a Vache National Park and Port Salut Protected Landscape totals 20,253 hectares (see maps in Annex 1). The expected global benefits of the GEF Alternative include: (i) improved participatory management and protection of globally significant

---

<sup>13</sup> Carbon Sequestration and Carbon Dioxide Emission in Vetiver Grass Cultivation Areas in Thailand, Prapa Taranet, Kamalapa Wattanapapat, Isariya Meesing, Pornpat Nopmalai Land Development Department, Thailand.  
[http://www.ddd.go.th/web\\_ord/ORDMain/Data%20new%20Library/2555update/fpd/A02.Carbon%20Sequestration.pdf](http://www.ddd.go.th/web_ord/ORDMain/Data%20new%20Library/2555update/fpd/A02.Carbon%20Sequestration.pdf) (last accessed 1 august 2013)

biodiversity in the area to be declared, and (ii) demonstration of a participatory management and enforcement systems that would be replicable elsewhere in the country.

**Aichi Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society** will benefit from project activities to support the establishment of woodlots, and replanting of mangroves affected by current charcoal production practices. The project will further contribute to **Aichi Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use** by addressing unsustainability in the vetiver supply chain. **Aichi Strategic Goal C: Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity** will benefit from project actions to support the increases in effective management of protected areas. The project will contribute to **Aichi Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services** through project activities aimed at both reducing vulnerability and increasing adaptive capacity to climate change as well as targeted interventions with direct benefits to biodiversity and ecosystem services.

**Land Degradation:** The project will rehabilitate degraded lands and forests and promote sustainable land management practices in a total of approximately 30,000 ha in various sites, including protected areas and the surrounding non-protected communities, using various techniques including the introduction of sustainable vetiver harvesting practices, sustainable agricultural practices for food crops, anti-erosion measures, as well as reforestation and the setting up of dedicated woodlots for charcoal production.

**Socio-economic benefits** will also be derived from this project through the combined efforts above. Restoration of ecosystem's productive services, in particular in agricultural lands and fisheries, will lead to increased productivity and therefore food security for the communities living in and outside protected areas. Additional socio-economic benefits will be accrued from the exploration of alternative sources of income and livelihoods, using sustainable ecosystem-based products, including sustainable fisheries, construction, energy production, as well as agro-forestry and the production of honey, essential oils, and handicrafts. Promising but climate-sensitive sectors, including the pharmaco-cosmetics and eco-tourism sectors will also be explored, so that local communities stand ready to invest and benefit from these upcoming ventures. Livelihoods benefits will be explicitly measured through gender-disaggregated indicators that will be developed during the Project Preparation phase.

#### **A.1.6 Innovativeness, sustainability and potential for scaling up**

The ecosystem-based approach to disaster risk and vulnerability reduction is not in itself an innovative approach, but it is innovative in the context in which it will be implemented. Elements of the Eco-DRR approach have been implemented in Haiti and there is growing awareness of the role that healthy ecosystems can play in protecting lives and generating sustainable livelihoods. Given the general lack of interventions focused on the environment in the three southwestern most districts of Haiti, the approach promoted provides a unique avenue for generating and leveraging multiplied benefits for people and the environment by:

- a) developing a fully integrated multi-focal area approach at the community level (which is still innovative for GEF despite multiple MFAs in existence), and
- b) innovating with a value chain approach for developing new technologies for investment in environmental goods and services that simultaneously reduce GHG emissions and promote SLM and SFM.

The project also integrates various technical innovations to the specific local context, including by seeking alternatives for energy generation, for agricultural production (particularly in the vetiver sector), and for managing protected areas and resources. The project intends to seek innovative ways to support local enforcement capacity and will work with the private sector to demonstrate good practices in the use of

protected and fragile environmental resources.

Activities in the project are designed to leave behind incrementally improved levels of capacity among all stakeholders, including governmental authorities, local government, communities and NGOs. These levels of capacity will create the conditions for long-term sustainability, and the demonstration of immediate benefits for local communities, in terms of livelihoods, will serve to establish the motivation for continued action after the project is completed. Replication and scaling up strategies to enhance long term sustainability of barrier removals, both financial and technical, will be developed during project appraisal.

Some initial concepts on sustainability include:

- Exploring options for raising funds for protected area management from the tourism sector in the region, particularly for the marine and coastal PAs.
- A strong focus on upfront development of many smallholder woodlots on degraded land, which when coppice harvested, will both contribute to land rehabilitation and provide a steady annual income.
- Creation of fishing cooperatives, which will self enforce government endorsed fisheries regulations in their areas of control, provide improved cold chain facilities and finance more advanced and sustainable fisheries methods.
- Creation and support of vetiver farming cooperatives to enable sustainability improvements, collective bargaining for an equitable floor price and long term sales contracts direct to the distillers;
- Organic and sustainability certification for the improved vetiver smallholder farms and supply – linked to the collective bargaining and generating a price premium for the entire supply chain.

UNEP will extend its existing work and lessons learned on the development of rural electricity cooperatives in the South to the other sectors.

Some initial concepts on replicability include:

- Building initial vertically integrated supply chains for sustainable charcoal, fisheries and vetiver within distinct geographic areas and communities, delivering visible and solid examples of the possible benefits, and then using these model communities as the basis for large scale efforts based on the cooperative model.
- Supporting one vetiver distillation upgrade, selected via a competitive bidding process linked to an agreed vetiver floor price . The resultant economic benefits and competitive advantage generated is expected to drive the remainder of the industry to follow the model (or risk losing market share).

## **A.2. Stakeholders.**

The main stakeholders involved in this project, from design to implementation, are as follows:

- **Government institutions** such as the Ministry of Environment (MDE), the Ministry of Agriculture, Natural Resources and Rural Development (MARNDR), and the Maritime and Navigation Service (SEMANAH), as well as the National Office for Protected Areas Management (ONAGAP). Local governments in the three districts of Nippes, Sud and Grande Anse will also benefit from capacity development. The project will be nationally executed through MDE.
- **Local communities** in the 8 protected sites and in the targeted sites of the three districts will be fully engaged in the project development and implementation and all activities will be undertaken in collaboration with them. Men and women will be targeted specifically to ensure that benefits accrue to both groups, along with the most vulnerable groups in the communities (children and the elderly) for disaster risk reduction activities.

- **Non-governmental organization and the private sector** will also be involved in the project, as beneficiaries as well as partners. NGOs and CBOs will benefit from targeted capacity building, particularly in terms of organizing local communities, awareness raising and skills development in areas related to Eco-DRR. The private sector (formal and informal) will be particularly targeted for capacity development and awareness raising on sustainable production patterns (particularly in the agriculture and pharmaco-cosmetics sectors), emissions reduction, sustainable land management, and the sustainable extraction of resources from protected areas. The private sector in particular will be fully engaged in the project in order to build on the local entrepreneurship and to take advantage of local development opportunities that are emerging.

### A.3 Risk.

Risk	Level	Mitigation Strategy
<b>Environmental risks</b> due to both the natural vulnerability and to climate change, could impact the project and the communities within the project sites	High	The project will move as rapidly as possible with the implementation of Eco-DRR measures, that are designed to provide added protection benefits for local communities. This includes mangrove rehabilitation, reef rehabilitation, reforestation on slopes, shoreline stabilization, as well as the construction of emergency shelters and protective infrastructures in very vulnerable communities.
<b>Operational risks</b> , due to limited government capacity and central and local level, could impact project delivery.	Medium	The project will work using a capacity development approach so as to strengthen skills, tools, knowledge and awareness for all stakeholders, including non-governmental partners. The project will work with local communities to clearly demonstrate the security and livelihoods benefits of interventions, which will provide incentives for continued participation and engagement. Project execution arrangements that take into consideration the limitations of government capacity as well as the potential contributions of non-state actors and the possibility of UNEP Execution, will be designed during the project preparation phase.
<b>Project management risks</b> , due to potential difficulties in coordination between GEF funded projects	Low	Ongoing coordination is pursued through UNEP's continued role in the coordination of donors in the South, through the CSI initiative, the Platform de Governance du Sud, and through monthly development partner meetings and discussions around thematic and programmatic issues. UNDP, IADB, UNEP and other development partners currently participate in these venues. Coordination of the GEF funded projects through IADB and UNDP has occurred through concept development, and is expected to continue throughout full project design and implementation
<b>Sustainability risks</b> , owing to the high prevailing levels of poverty, which could prevent local communities and the private sector, from definitively ceasing their unsustainable natural resources extraction practices.	Medium	The project will implement a two-pronged approach to this risk. First by demonstrating the benefits of its interventions in terms of safety and livelihoods, the project will contribute to creating local engagement and commitment. Second, the project will also promote innovative tools and systems for enforcement of standards in and outside of protected sites, combined with a targeted awareness raising campaign and the engagement of local

		communities. The long term commitment of the CSI will ensure continuity and sustainability
--	--	--

**A.4. Coordination.**

In the southern region in general, and the southwest peninsula in particular, a number of initiatives are planned or underway with which this project will seek close coordination. As mentioned in A.1, it is at the initiative of UNEP that UN agencies (currently UNEP, UNOPS, and UNDP) have formed a coalition accompanying the Government of Haiti in a concerted and decentralized manner for the sustainable development and the reduction of vulnerability of the South Department of Haiti. This UN decentralized coalition is called Cote Sud Initiative (CSI).

At site level, through the multi-focal FSP 3132, the IADB executing a project on land management of the upper watersheds of southwestern Haiti. This project, which is an additional component to the IADB Loan “Natural Disaster Mitigation Program”, targets the upper watershed of the Macaya Park. UNEP is participating in this project as responsible for the activity related to the development of the management plan of National Park Macaya. A small portion of the southern lower coastal watershed of the Macaya Park is concerned in this current proposal, under Component 2, where this proposed initiative will work with local communities to enhance ecosystem-based resilience and livelihoods.

The proposed project will also work in close coordination with the planned UNDP-GEF project “increasing resilience of ecosystems and vulnerable communities to CC and anthropic threats through a ridge to reef approach to BD conservation and watershed management”. This project, which is under preparation, targets, among other areas, the northern part of the southwest peninsula, through the Iles Cayemites and Macaya National Park. The project proposes a Ridge to Reef approach that integrates national parks management with ecosystem based adaptation and will support the development of protected areas governance frameworks, ecosystem rehabilitation and watershed management. This proposed UNDP-implemented project proposes an approach focused on the whole of the northern watersheds and coastlines, and will implement a set of anti-erosion measures, sustainable land management in the upper watershed and mountainous area of Macaya Park, as well as reforestation in watersheds and mangroves. This UNDP proposal foresees a number of interventions that are not included in this project concept, which focuses on coastal areas. However, opportunities for collaboration include the provision of information to mutually inform planning processes, particularly the definition of spatial planning frameworks; tools, lessons and best practices on ecosystem rehabilitation, including perhaps the definition of joint or harmonized ecosystem monitoring methodologies for cost savings and synergy; and site-to-site community forums to share the benefits of EBA and Eco-DRR approaches.

The project will also build on the lessons learned and information generated by the ongoing implementation of the LDCF supported project “Strengthening the adaptive capacity of coastal communities in Haiti”, implemented through UNDP support. This NAPA implementation project has supported the development of studies on coastal vulnerability to sea level rise, a climate change profile for the entire country, and is working on developing agricultural vulnerability studies. The project intends to implement some pilot interventions in the Southeast portions of the country to address water-related vulnerability, and is mobilizing communities in the Southeast, north and north-east for awareness raising on the impacts of climate change.

In addition to these baseline projects located in the South, a number of large-scale national-level initiatives are being implemented by various development partners in Haiti, including:

Programmes implemented by the World Bank cover all sectors of the economy, with long-term and large-scale lending. Of particular relevance to this proposed initiative, the World Bank supports:

- The Pilot Programme for Climate Resilience (PPCR), which is focused on the Central Plateau and the Arc of the Gulf of Gonaive, and which will generate models for climate resilience and integrated watershed management for nationwide application;
- The “Haiti - Disaster Management and Vulnerability Reduction” project, whose objective is to support the country in improving disaster response capacity, enhance the resiliency of critical transport infrastructure, ensure proper planning of all stages of the involuntary resettlement of families and ensure the development of a clear and timely participatory process of the affected families;

The IADB is also implementing a set of large national projects, in various sectors including Agriculture, Energy, Education, Governance and public sector institutional strengthening, roads and infrastructure, water mobilization and sanitation, none of which have specific applications in the southwest. Of particular relevance to this proposed LDCF initiative, the IADB is implementing a project on Capacity Building for Sustainable management of the Flood Early Warning System (US\$440,000), and is also implementing a US\$13 million project with US\$9 million of GEF support on Sustainable Land and Forestry Management in the Macaya National Park. UNEP has been requested by IADB to develop the management plan for the Macaya Park.

Norwegian Cooperation, in coordination with the United Nations Development Programme (UNDP), the UN Environment Programme (UNEP) and World Food Programme (WFP), is also funding the US\$3.5 million trans-boundary “Green Border” project, which operates in the northeast and south east of the country, in areas adjoining the border with the Dominican Republic. UNEP has provided support to the municipalities of Fort Liberté and Caracol through the project “Management and protection of the coast of Caracol, Dérac and Fort-Liberté”, protecting these coastal areas through the planting of mangroves in degraded areas, removing accumulated solid wastes, with a view towards development of tourism activities capable of generating employment and income.

The UNDP-supported “National Programme of Support to the Disaster Risk Management System” project which has supported the government in developing a disaster risk reduction roadmap, and revisions to the construction codes specifically targeted towards the risk of earthquakes. That project is also supporting the installation and acquisition of hydro-meteorological monitoring equipment, which will provide a stronger basis for climate early warnings in the future.

Investments by the Government (through the Ministry of Environment) in the National Protected Areas System are complemented by the support received from the European Union to the Caribbean Biological Corridor (CBC). With the additional support provided by GEF project 3616 “Establishing a Financially Sustainable National Protected Areas System”, under the baseline scenario the SNAP will have a basic operational and financial framework necessary for its long term sustainability; local communities will increasingly participate in PA management; and the area of the PA estate will be expanded, allowing economies of scale and the development of models of income generation, contributing incidentally to the ecosystem coverage of the NPAS.

USAID is funding a project “Improved Cooking Technologies Program” to reduce the demand for charcoal in Port au Prince, through the subsidization of LPG cylinders and stoves for the street restaurant sector and new settlements. The project is also providing technical assistance in the reform and expansion of the national LPG sector.

## **B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:**



**B.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NCSAs, NIPs, PRSPs, NPFE, Biennial Update Reports, etc.:**

Haiti ratified the United Nations Framework Climate Change Convention, the United Nations Convention to Combat Desertification and the United Nations Convention on Biological Diversity on September 25 1996.

The project is in line with Haiti's current environmental legislation which provides the basic framework for the conservation and sustainable use of biodiversity and ecosystems. The Government has developed an array of legal measures to facilitate the management of the environment, initiated by several sectoral Ministries. The General Decree on Environment, prepared by the Ministry of Environment, was approved in November 2005 and promulgated to the Official Journal of the Haitian State on January 26, 2006 (161st Year, Number 11).

The project is also consistent with the **National Environmental Action Plan (NEAP)** of 2009. The NEAP is the major policy that offers guidance on all aspects of environmental management and its' priorities are to "strengthen and rationalize the management of the National System of Protected Areas; restore the ecological balance of watersheds through the implementation of exploitation norms and best practices; improve the quality of life through a better management of urban and rural areas as well the valorization and conservation of natural and cultural heritage; and provide a framework to reach a better coherence among plans and programmes within the environmental sector". This project contributes directly to these priorities

The project is also in line with the **National Action Plan for Integrated Management of Watersheds and Coastal Areas (IMCAWA)**, developed by the Ministry of the Environment (MoE), The IMCAWA plan covers four strategic areas: I: Restoration of critical coastal ecosystems and associated watersheds, II : A new Institutional and Legal framework to address Integrated Management of Watersheds and Coastal Areas, III : Reduction of Communities' Vulnerability to Natural Disasters and IV : Transboundary Cooperation in Integrated Management of Watersheds and Coastal Areas with Dominican Republic.

This project also directly supports the implementation of the **National Adaptation Programme of Action (NAPA)** of 2006, which determines areas of vulnerability and sets priorities for adaptation. This project directly contributes to the implementation of priorities 2: Strengthening and enforcement of the environment legal framework; 5: Preservation and strengthening of food security; 6: Valuation and conservation of natural resources; and 7. Coastal Zone management, while contributing indirectly or to a lesser degree to the four other options.

**B.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities:**

This project is specifically structured to meet the following GEF-5 objectives:

- **CCA 1 and CCA 2:** "Reducing vulnerability: reduce vulnerability to the adverse impacts of climate change including variability, at local, national, regional and global level", and "Increasing Adaptive Capacity".
- **CCM 2 and 5:** "energy efficiency: promote market transformation for energy efficiency in industry and the building sector", focusing on the commercial vetiver industry in the Sud Department, and "LULUCF: promote conservation and enhancement of carbon stocks through sustainable management of land use, land use change and forestry"
- **SFM/REDD+ - 1:** "forest ecosystem services: reduce pressures on forest resources and generate sustainable flows of forest ecosystem services"
- **BD 1:** "improve sustainability of protected area systems"

- **LD1, 2 and 3:** “Agriculture and rangeland systems: maintain or improve flows of agro-ecosystem services sustaining the livelihoods of local communities”, “Forest landscapes: generate sustainable flows of forest ecosystem services, including sustaining livelihoods of forest dependent people”, and “integrated landscapes: reduce pressures on natural resources from competing land uses in the wider landscape”.

The project meets the eligibility criteria and programming priorities of the LDCF. It fits with the strategic objective of the LDCF to “meet the urgent and immediate adaptation needs of the Least Developed Countries, as identified in their NAPAs” (Decision 7/CP.7), by focusing on extremely vulnerable communities and priorities identified in Haiti’s NAPA.

### **B.3 The GEF Agency’s comparative advantage for implementing this project:**

UNEP’s comparative advantage stems from its mandate to coordinate UN activities with regard to the environment, its ability to engage with different stakeholders to develop innovative solutions and its capacity to transform these into policy- and implementation-relevant tools. UNEP’s comparative advantages in the GEF are aligned with its mandate, functions and Medium Term Strategy and its biennial Programme of Work (2012- 2103).

The proposed project is consistent with the Ecosystem management and Climate Change thematic priorities expressed in UNEP’s MTS. The proposed project is consistent with the expected UNEP accomplishment to support increased carbon sequestration occurs through improved land use, reduced deforestation and reduced land degradation and to support country policymakers and negotiators, civil society and the private sector in their access to relevant climate change science and information for decision-making. This proposed project is in line with UNEP’s role in the GEF to catalyze the development of scientific and technical analysis and advancing environmental management in GEF-financed activities.

UNEP has a very strong relationship with the Haiti government and has been very active in the region concerned by the project, as can be seen from its involvement in the baseline programming which serves as a basis for this project. In developing the NAPA and National Communications with Haiti, UNEP has fostered positive working relationships with national teams and various stakeholders.

UNEP has considerable expertise in working around protected areas in general and in Haiti in particular and has recently been requested by IADB to develop the management plan for the Macaya National Park.

The project will also benefit from the presence and oversight of the **UNEP Country Office**, established in the field since 2008. The personnel in Haiti are located in two Offices: one **main Office** in the city of Port Salut (where most of the staff is located including the Country Programme Manager, following a decentralization decision taking by UNEP in 2011, and supported by UNOPS). The concentration of the UNEP field activities with the exception of governance strengthening initiatives at the central level, are in the Southern Peninsula of Haiti. There is also one small Liaison Office based in Port-au-Prince. UNEP is the only UN agency based outside the capital city. The value of the completed and ongoing projects managed by UNEP in the South Department is currently US\$19 million and rising, hence together with its many (15+) partners it has substantive local operational capacity.

In addition, UNEP personnel will support this project through technical and administrative staff in Geneva, Switzerland; Panama City, Panama; Nairobi, Kenya; and Washington DC.


**PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)**

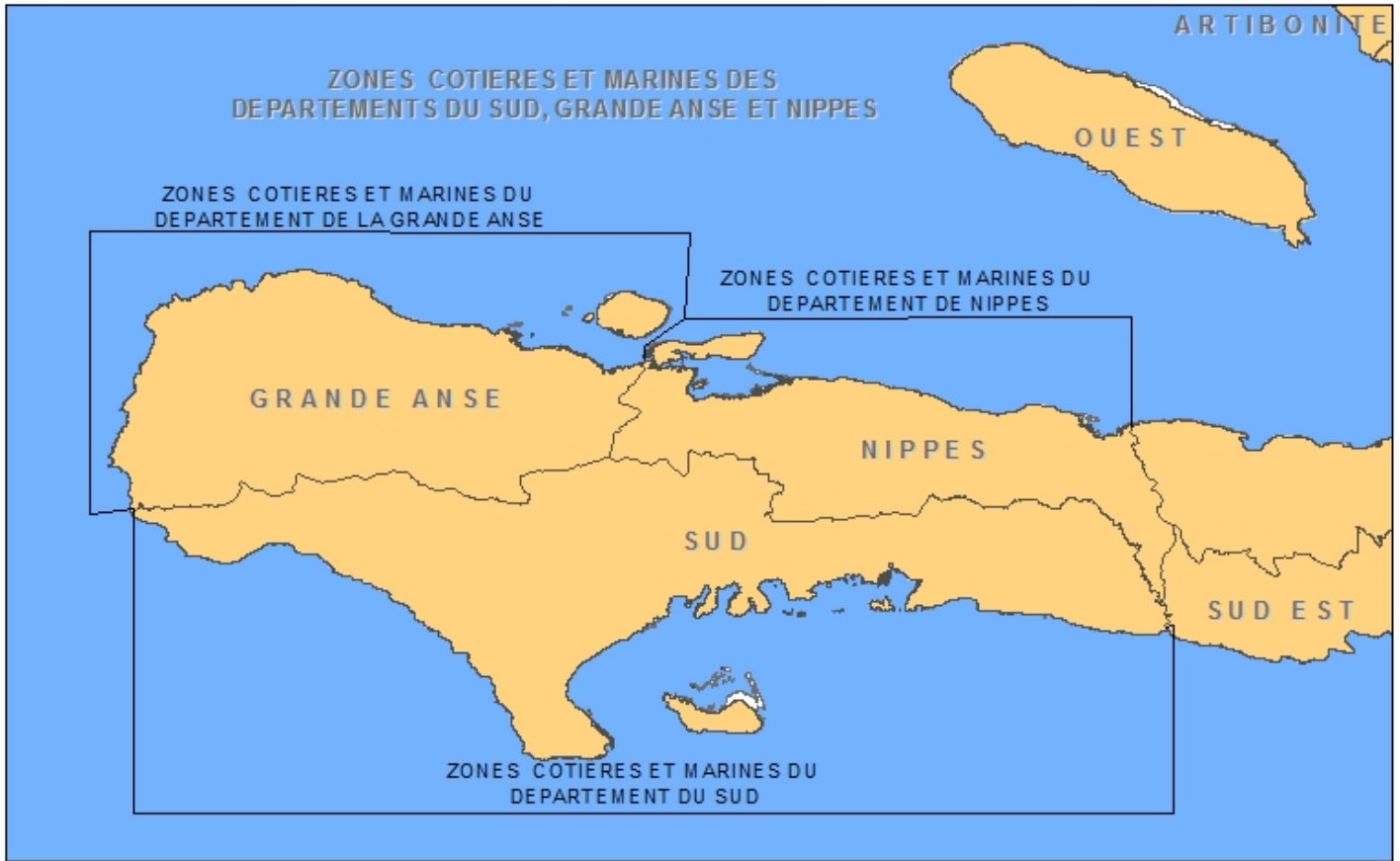
**A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):** (Please attach the Operational Focal Point endorsement letter(s) with this template. For SGP, use this OPF endorsement letter).



NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
DR. JEAN FRANCOIS THOMAS, MINISTER OF ENVIRONMENT	GEF OPF	MINISTRY OF ENVIRONMENT	06/27/2013

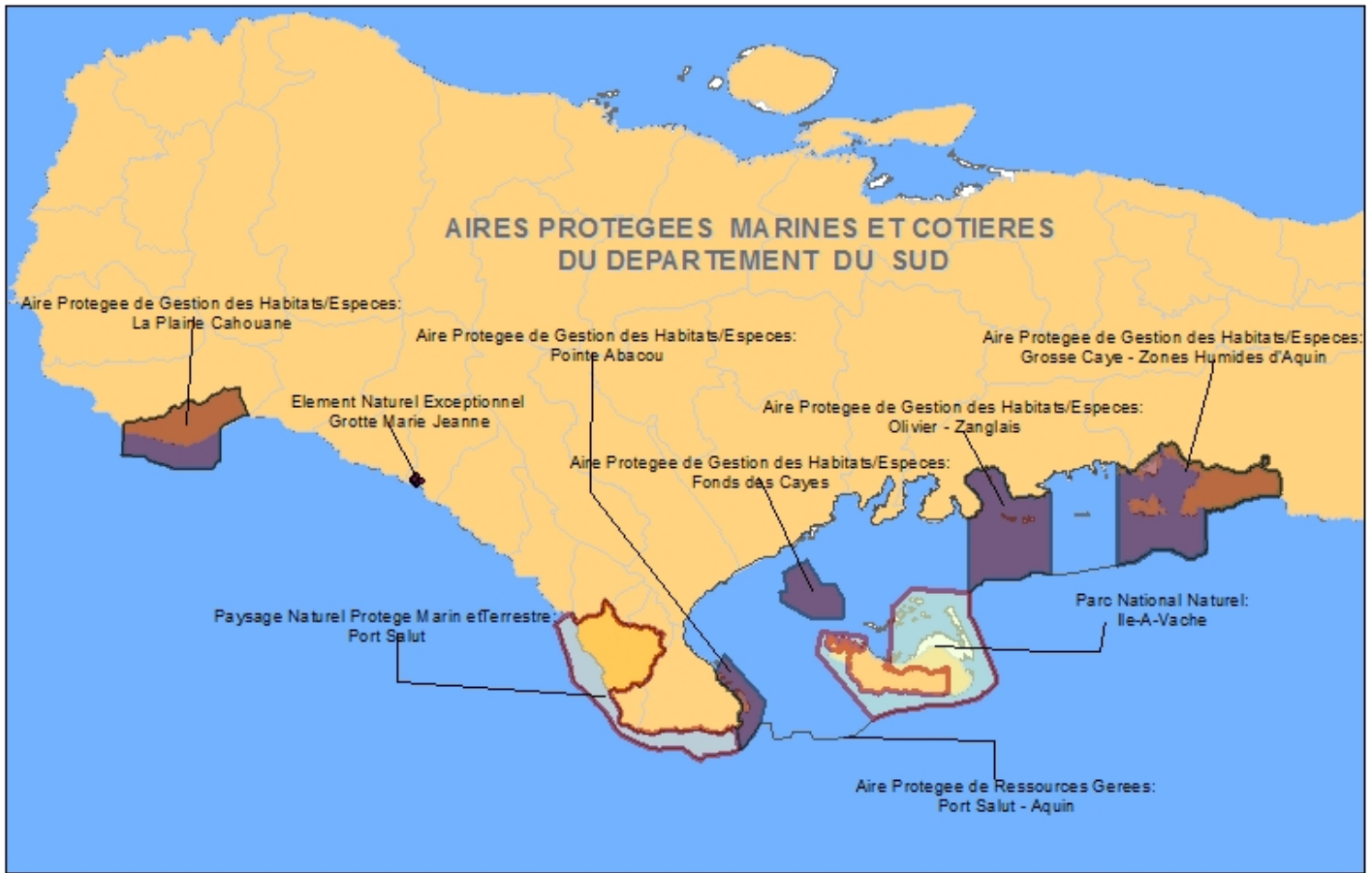
**B. GEF AGENCY(IES) CERTIFICATION**

**This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for project identification and preparation.**

Agency Coordinator, Agency name	Signature	DATE (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Maryam Niamir-Fuller, Director, GEF Coordination Office, UNEP		11/01/2013	Kristin Mclaughlin Task Manager	+1-202-974-1312	Kristin Mclaughlin



 <p>REPUBLIQUE D'HAÏTI</p> <p>Echelle: 1:600,000</p> <p>0 0.1 0.2 0.3 Kilomètres</p>	<p>ZONES COTIERES ET MARINES DES DEPARTEMENTS DU SUD, GRANDE ANSE ET NIPPES</p> <p>Coordinate System: Geographic Coordinate System Datum: WGS84</p> <p>Realisation Cartographique: COTE SUD INITIATIVE (CSI)</p>	 <p>UNEP</p>  <p>COTE SUD INITIATIVE</p>	
---	--	---	---





REPUBLIQUE D'HAÏTI

Echelle: 1:90.000

0 0.1 0.2 0.3  
Kilometres



### AIRES PROTEGEES MARINES ET COTIERES DU DEPARTEMENT DU SUD

Coordinate System: Geographic Coordinate System  
Datum: WGS84

Realisation Cartographique: COTE SUD INITIATIVE CSI



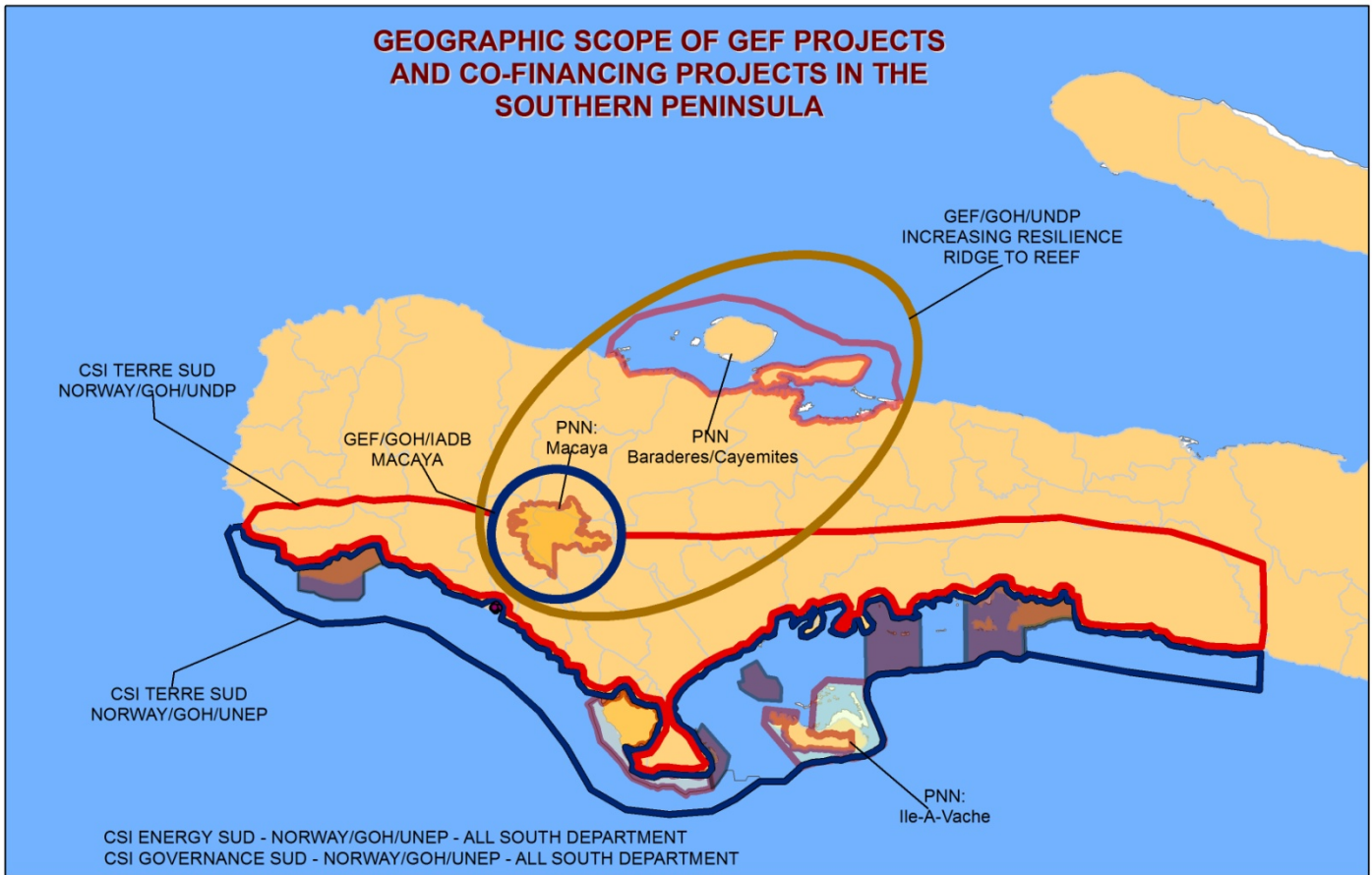
UNEP



COTE SUD  
INITIATIVE



## GEOGRAPHIC SCOPE OF GEF PROJECTS AND CO-FINANCING PROJECTS IN THE SOUTHERN PENINSULA



 <p>REPUBLIQUE D'HAÏTI Echelle: 1.750.000</p> 	<p><b>Legende</b></p> <ul style="list-style-type: none"> <li> Aire Protegee</li> <li> Limite Commune</li> <li> Mer</li> </ul>	<p style="text-align: center;"><b>GEOGRAPHIC SCOPE OF GEF PROJECTS AND CO-FINANCING PROJECTS IN THE SOUTHERN PENINSULA</b></p> <p>Coordinate System: Geographic Coordinate System Datum: WGS84 Realisation Cartographique: COTE SUD INITIATIVE CSI</p>	<div style="display: flex; justify-content: space-around; align-items: center;">    </div>
			<p><b>PNN:</b> Parc National Naturel <b>CSI:</b> Initiative Cote Sud</p>