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Project Information Document/ Integrated Safeguards Data Sheet (PID/ISDS)

Concept Stage | Date Prepared/Updated: 17-Mar-2017 | Report No: PIDISDSC21361

BASIC INFORMATION

A. Basic Project Data

Country	Project ID	Parent Project ID (if any)	Project Name
Haiti	P162908		Resilient Productive Landscapes in Haiti (P162908)
Region	**Estimated Appraisal Date**	**Estimated Board Date**	**Practice Area (Lead)**
LATIN AMERICA AND CARIBBEAN	Jul 31, 2017	Dec 22, 2017	Agriculture
Lending Instrument	**Borrower(s)**	**Implementing Agency**	
Investment Project Financing	Ministry of Economy and Finance	Ministry of Agriculture, Natural Resources and Rural Development (MARNDR),Ministry of Environment	

Proposed Development Objective(s)

The project Development Objectives is:
(i) to enhance the resilience of agriculture and ecosystems in selected watersheds; and (ii) to enable the Government to respond promptly and effectively to an eligible emergency.

Financing (in USD Million)

Financing Source	Amount
Global Environment Facility - IBRD as Implementing Agency	7.00
IDA Grant	15.00
Non-Government Organization (NGO) of Borrowing Country	5.00
Total Project Cost	**27.00**

Environmental Assessment Category	Concept Review Decision
B-Partial Assessment	Track II-The review did authorize the preparation to continue

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Other Decision (as needed)

B. Introduction and Context

Country Context

Haiti's geography, people, and history offer many opportunities. The third largest Caribbean nation by area and population (10.4 million), Haiti shares the island of Quisqueya with the Dominican Republic. In addition to an illustrious early history as the first independent nation in the region, Haiti benefits from proximity and access to major markets, a young labor force, a dynamic diaspora, and substantial geographic, historical, and cultural assets. The country possesses untapped markets and unmet demand for the private sector to explore, including agribusiness, light manufacturing, and tourism.

Yet Haiti remains the poorest country in the Western Hemisphere and one of the poorest countries in the world, with a GDP per capita of US$820. Almost 60 percent of the population lives below the national poverty line and inequality is high, with wealth and economic opportunity concentrated around Port-au-Prince. Access to basic services is limited, particularly in rural areas, which has translated into low human development indicators (Haiti ranks 168th out of 187 countries in the Human Development Index).

Seven years after the catastrophic earthquake of 2010, reconstruction efforts have yielded tangible progress. The earthquake killed an estimated 230,000 people and displaced 1.5 million, causing damages and losses of 120 percent of GDP. Reconstruction followed in the wake of the humanitarian effort, and progress has been made in several areas. Extreme poverty fell to 24 percent, infrastructure and private sector activity have expanded, and health and education indicators have improved over the same period, thanks in part to substantial expansion of donor assistance after the earthquake and to sustained levels of remittances from the Haitian Diaspora.

Nevertheless, Haiti remains extremely vulnerable to natural disasters. In addition to earthquakes, these include droughts, floods, hurricanes, cyclones, tropical depressions and landslides, with 96 percent of the population at risk. Climate change is expected to intensify the impact of natural disasters in Haiti. Although ranked 140th in carbon emissions on the world ranking of GHG emitters, Haiti bears the brunt of climate-induced natural disasters. On average, each disaster costs 2 percent per GDP per year, and occasionally much more: on October 3, 2016, Hurricane Matthew, a category IV hurricane, landed in Haiti and caused a large scale disaster affecting over 2.1 million people (almost 1/5 of the population) and leaving almost 1.4 million people in need of lifesaving assistance in the southern part of the country. Winds speeds up to 140 mph and torrential rain for 48 hours (around 1,016 mm) triggered widespread flooding and numerous landslides and caused severe damage to all sectors - water, electricity, education, health, food security, and livelihoods - particularly in the Sud, Grand-Anse, and Nippes departments.

The disaster also resulted in heavy damage to road infrastructure and buildings with thousands of houses flooded and without roofs as well as destruction of major bridges and roads. Substantial damage was also sustained in the agricultural sector with up to 80 to 90 percent losses of crops in some areas, including staple food, tree crops, and livestock. An upward of 500 schools are also estimated to have been destroyed and approximately 3,000 schools damaged, thus disrupting school for over 470,000 children of ages six to fourteen. According to preliminary estimates, damages and losses caused by Matthew amount 22 percent of GDP.

In addition to increasing the impact of natural disasters, climate change is also expected to change broader weather patterns with negative impacts for agriculture, ecosystems, and people, such as change in rainfall patterns leading to increased periods of draughts and intense rainfalls, but also higher temperature oscillation with higher peak temperatures. These changes in weather patterns will require an adaptation of agricultural practices and natural resources management at the farm level – and beyond. To increase the resilience of agricultural production systems, rural economies, and ecosystems, an integrated management approach may be need that considers interactions between environment and agriculture. In particular, this would entail the promotion of transfer and adoption of adaptation technologies. Increasing the adaptive capacity of farmers and institutions to respond to the impacts of climate change is expected to also create positive knock-on effects for other external shocks, such as commodity price changes and other production influencing parameters.

While these developments are further hampering domestic resources mobilization and increase Haiti's reliance on official development assistance and remittances, they also indicated a clear policy direction and the need to build resilience to climate-induced natural disasters in rural areas. In this context agriculture is seen as a major provider of food, nutrition, jobs, and export earnings, but also as key to improving stewardship of the environment, adapt to the increased risk of climate change, and to build resilience. The widespread adoption of climate-smart agriculture and sustainable management practices in efforts to secure the triple win of higher agricultural productivity, increased resilience to climate change, and improved management of natural resources is now high on the government priority list.

Sectoral and Institutional Context

The agriculture sector is adversely affected by harsh environmental conditions that are under increasing pressure from a less predictable climate. Production is highly dependent on unreliable rainfall, with less than 1 percent of farmers using irrigation (Jadotte 2007). Most farmers have poor access to tools, machinery, and purchased inputs including improved seeds and fertilizer. In a country that is already densely populated, steady population growth continues to put pressure on the natural resource base, and farm sizes have declined over time and become less productive (WB 2005). To compound matters, Haiti's exposure to frequent hurricanes and tropical storms, combined with high rates of soil erosion that have reduced soil fertility and adversely affected crop output, cause annual productivity losses in agriculture ranging from 0.5 to 1.2 percent (WB 2005).

Large-scale deforestation of Haiti has contributed to the degradation of watersheds. The lack of a protective vegetative cover has led to an increase in the rapidity of surface water runoff out of watersheds, reducing the ability of rainwater to recharge the aquifers, impacting rivers and changing water salination levels with detrimental effects on lake and ocean habitats. (Hotz and Christian 2015). The decline of a protective vegetative layer subjects Haiti's land to increased evapotranspiration—the drying of soil through direct exposure to sun and wind, which work together to wick away surface moisture, impacting both agriculture and rainfall patterns. And without trees' complex root systems to hold Haiti's mountainous terrain in place, Haiti suffers from increased vulnerability to the impacts of tropical storms and hurricanes, which are increasing with the effects of climate change. Individual trees are subject to higher exposure from wind than trees in forests, resulting in the widespread downing, and top soils are lost to runoff.

In Haiti, 80 percent of households engage in farming activities, with the average farm size of approximately 0.5Ha. The main food crops produced are rice, maize, bananas, yams, cassava, green beans, and millet, and important export crops including coffee and mangoes. Agriculture plays a dominant role in the Haitian economy, contributing over 25 percent of GDP. It also accounts for around 50 percent of overall employment,

66 percent of employment in rural areas, and 75 percent of employment in low income households. Agriculture income continues to contribute a large proportion of rural income (approximately 40 percent).

National demand for agricultural land is at direct odds with natural resource management goals. International best practice suggests that deforestation needs to be addressed by supporting economic opportunities for local communities, and that agricultural productivity relies on effective watershed planning and water resource management. In Haiti, these aspects have not been addressed in a fully integrated way. By strengthening the links between agriculture, natural resource management, and water source sustainability, this project proposes to examine the agriculture / environment nexus and apply a sustainable management approach across the landscape.
In 2015, Haiti suffered a severe drought, which had a severe impact on agriculture. In spring, 2015, an emergency food security assessment conducted by World Food Program (WFP) and the Haitian National Coordination for Food Security Office (CNSA) saw the majority of the households (81 percent) reporting that their 2015 spring/summer harvest was affected by the drought. Out of this, 89 percent reported losses in their agricultural production and 72 percent indicated that they lost more than 80 percent of their production. Immediately following the drought, the South of the country was devastated by the impacts of hurricane Matthew. The total estimated damage to the agriculture sector (including trees) was US$604 million, including US$213 million of losses and US$309 million of damages. Relief and recovery efforts are now focused on the South, and the World Bank through the Relaunching Agriculture Project (RESEPAG II) is supporting targeted efforts to salvage the winter bean planting season, however, much more focus is needed to restore watersheds, including forest cover, adapt to the effects of climate change, and build resilience for future events.

In 2015, the World Bank, together with the MARNDR, MoE, and other development partners held a workshop to discuss “resilient productive landscapes in Haiti” as a means of increasing adaptation to climate change. The World Bank invited Haitian experts to present their research and international experts to share experiences from other countries. As a result of this workshop, the team prepared a paper “Landscape-level Land Management Efforts in Haiti. Lessons Learned from Case Studies Spanning Eight Decades” to take stock of the landscape-level projects that have been done in the past. This paper identified some promising practices, and the need to do some additional analytical work – specifically on the relationship between charcoal production, vegetation and deforestation. The paper also provided consolidated lessons learned to help improve future projects, many of which have been internalized in project design.

In the context of relieving the agriculture and population pressure on forests and landscapes, and in the context of adapting to the effects of climate change, in 2015 a Haiti-based NGO, the Jenkins-Penn Haiti Relief Organization (JP/HRO), together with the Ministry of Environment (MoE) and Ministry of Agriculture Natural Resources and Rural Development (MARNDR) developed a proposal for a broad initiative – Haiti Takes Roots (HTR) – focused on watershed management and reforestation in key areas of Haiti. The HTR was intended to be a platform for engagement, coordination, learning, monitoring and programmatic approach to be governed by a steering committee and Secretariat chaired by the Prime Minister and including members from concerned ministries, institutional partners, international organizations, civil society and private sector. It was within the context of the HTR initiative that JP/HRO, the MoE, the MARNDR and the World Bank started discussions around the development of a new joint project to foster resilient productive landscapes at the watershed level.

Within this context, the proposed project builds on other existing donor-funded projects and Global Environment Facility (GEF) grants. Since the Earthquake, GEF has co-funded several projects in Haiti focused

on increasing the resilience of agriculture and ecosystems, and boosting food security through climate change adaptation. Several of them have also focused specifically on the Grand Sud (greater south area), given its increased vulnerability to climate shocks. In the same way that this proposed project will work in watersheds to increase the climate resilience of agriculture and ecosystems, previously, through funding from GEF (Star allocation 4) and the InterAmerican Development Bank (IaDB,) the Government implemented a project – "Sustainable Management of Upper Watersheds in South Western Haiti" aimed to address and contain the rapid environmental degradation in the upper watershed of the Southern part through the integration of sustainable land and forest management practices at the watershed level. In addition, together with the United Nations Environment Program (UNEP) and GEF (star allocation 5), a project Ecosystem Approach to Haiti Cote Sud sought to increasing resilience to climate change risks and decreasing disaster risk using an ecosystem management approach targeting protected areas and fragile ecosystems in the Southwestern Peninsula of Haiti. The proposed project will build on lessons learned from these similar projects, while coordinating with the ongoing IaDB and UNEP activities in the Grand Sud.

The proposed project and overall program blend various sources of financing including IDA (US$15M,) Global Environment Facility (GEF) (US$7M Least Developed Countries Fund Resources – LDCF), and parallel financing from JP/HRO (US$5M). The project will aim to leverage additional resources from donors for the capitalization of the Caribbean Biodiversity Fund (CBF). The overall program of Haiti Takes Roots is envisioned to be a multi-donor, multi-year effort of over US$100M, including the French Development Agency, the Canadian Development Agency and the IaDB, among others.

Relationship to CPF

The proposed project is consistent with the World Bank Group's Haiti Country Partnerships Framework (CPF) 2016-2019. Objective 1 of the CPF aims to enhance economic activities and income-generation opportunities, including in the agricultural sector through improving agricultural productivity by reinforcing the ability of farmer's cooperatives to bring quality products to market. The proposed project will focus on institutional capacity building of watershed and farmer organizations for investments in resilient agricultural and natural resource management practices, including through the introduction of new technologies and practices. These farm-level investments will enhance agricultural opportunities through access to new and better markets and reduce production risks while decreasing vulnerability to the effects of shocks resulting from climate change.

The CPF's Objective 2 targets improving disaster prevention and strengthening climate resilience through a number of avenues, including the analysis of land management practices and definition of entry points for investment in the promotion of resilient productive landscapes. The proposed project will directly tackle the issue of improving disaster prevention, reducing the vulnerability to the adverse impacts of climate change, increase adaptive capacity to respond to the impacts of climate change, and strengthening climate resilience through the transfer and adoption of adaptation technologies. The project will target hydrological zones[1] hard-hit by Hurricane Matthew, closely examine landscape-level losses post-hurricane, and target watershed-level[2] and farm-level investments to help build agricultural and landscape resilience to extreme weather events,

[1] Hydrological zones refer to the major watersheds and hydrological basins in Haiti, as delineated by Smucker et al (2007), as described in Table 1 and Figure 1 shown below.
[2] Watersheds refer to individual watersheds and micro-catchments within larger hydrological zones.

helping to prevent future losses at the scale of Hurricane Matthew.

This project will work closely with other development partners through the established platform Haiti Takes Roots. Given the challenges with fragmented donor contributions to all sectors in Haiti as identified by the CPF, the Haiti Takes Roots platform will be crucial for the sector to bring all partners around critical development themes, and coordinate efforts for broader impact.

This project is consistent with the climate change action plan submitted to the UN Framework Convention on Climate Change (UNFCCC), submitted in advance of the Paris meetings in 2015 (Intended Nationally Determined Contribution – INDC).[3] The Action Plan specifically names natural resource management within watersheds, use of agricultural technologies adapted to climate change, use of drought-resistant crops, soil conservation, reducing disaster risk in areas most vulnerable to drought, reforestation of upstream areas, as priorities for adaptation within the plan. It responds directly to strategic objectives laid out in the GEF LDCF/SCCF Climate Change Adaptation Strategy. The project also supports the achievement of objectives set forth under the National Plan for Adaptation (2006), that serves as the basis for the plan submitted to the UNFCCC in 2015. Furthermore, the proposed project builds off of earlier work requested by the GoH completed in 2015 under the Resilient Productive Landscapes Dialogue (P158514), and it is informed by analytical work on "Landscape-level Land Management Efforts in Haiti. Lessons Learned from Case Studies Spanning Eight Decades". Project preparation is accompanied by PROFOR-funded work to develop a Resilient Productive Landscape Planning Methodology (P162352). Moreover, the project complements the Bank's Agriculture Project (RESEPAG II) (P126744) and Haiti Business Development and Investment Project (P123974).

C. Proposed Development Objective(s)

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The project Development Objectives are: (i) to enhance the resilience of agriculture and ecosystems in selected watersheds; and (ii) to enable the Government to respond promptly and effectively to an eligible emergency.

This will be achieved by strengthening the capacity for landscape-level interventions of national and local institutions, by providing grants for demand-driven investments in sustainable agriculture to boost productivity and resilience of ecosystems to the impacts of climate change in the areas of interventions and by financing the operational costs for management, monitoring and evaluation of the project. The project will have a duration of five years, and is expected to have significantly contributed to the climate resilience of agriculture practices and of ecosystems in the project areas, and to generate important lessons to inform the national policy for a potential scale up of the project interventions.

Key Results (From PCN)

The results of the proposed Project will be measured through the following set of indicators:

[3] http://www4.unfccc.int/submissions/INDC/Published%20Documents/Haiti/1/CPDN_Republique%20d'Haiti.pdf

- Land area under sustainable landscape management practices (SLM, see annex IV) (Ha) – Corporate Indicator
- Farmers adopting improved agricultural technology (number) – Corporate Indicator
- Agricultural yield (tons/ha) (increase from baseline)
- Direct project beneficiaries (number), of which female (percentage)
- (only if triggered) Time taken to disburse funds requested by Government for an eligible emergency

The first two are corporate indicators (a full explanation of the dimensions captured by indicator 1 is provided in Annex 4), and the last indicator will only be measured in case an eligible emergency is triggered.

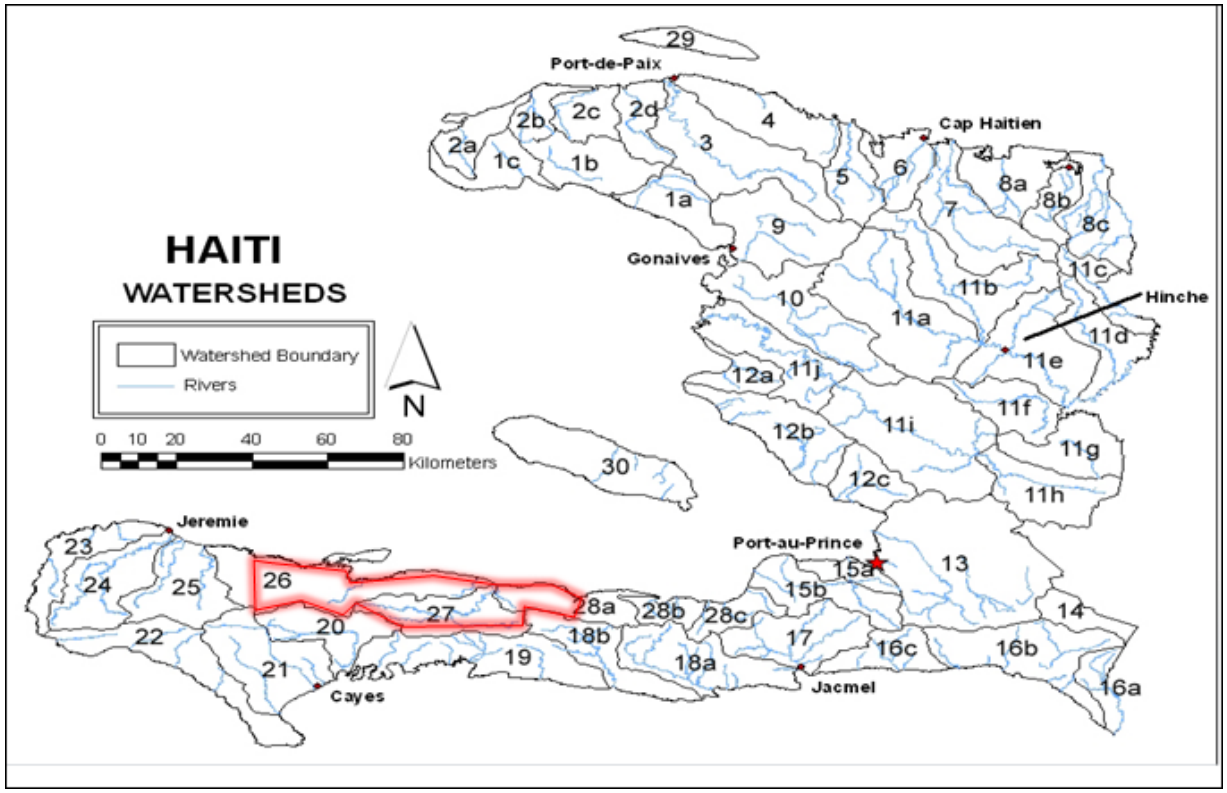
D. Concept Description

1. Description

Proposed Intervention Areas

Given the increased need in the Southern departments after hurricane Matthew, all of the intervention areas will be in this region. The hydrological zones selected span the departments of the Grande Anse and Nippes. Specific preliminary selection criteria have been discussed following field visits and government consultations (see Annex 1). The project will target the hydrological zones of: (i) Corail/Anse à Veau (Watershed N^{o}26 according the official classification); (ii) Grande Rivière de Nippes (N^{o}27); and (iii) Petite Rivière de Nippes (N^{o}28a) as shown in the Figure below (areas circled in red). Final validation of these hydrological zones and selection of specific watersheds or micro catchments within these hydrological zones will be done during project preparation.

Figure 1. Major rivers and hydrological basins of Haiti (54)



Proposed Approach

The proposed project will apply a sustainable landscape management approach at watershed level consistent with adaptation needs identified in the NDCs. The approach will consider people as central elements of the landscape; take an integrated, spatial approach to the management of land, water and vegetation within a particular geographical area, taking account of upstream and downstream impacts; combine measures to support sustainable intensification on the most fertile land with landscape restoration and soil and water conservation on degraded land; aim to create resilience in agriculture through a balance of environmental, social, and economic benefits from the use of land, water, forests and trees within a broader pattern of land and water use; and monitor impact and take into account lessons learned. These measures combined will target to achieve reducing the vulnerability to the adverse impacts of climate change and increasing the adaptive capacity to respond to the impacts of climate change.

As a Least Developed Country, Haiti is highly prone to the effects of climate change (including natural disasters); rapid population growth, poverty, environmental degradation, inadequate infrastructure, and a large agricultural sector create and exacerbate the vulnerability of Haiti. Missing or poorly managed water infrastructure makes the agricultural regions and hence, the livelihoods that depend on them, particularly vulnerable to a changing climate. High deforestation rates, coupled with intense rainfall make landslides commonplace and particularly dangerous in the steep sloping lands. Widespread deforestation in the upper reaches of these valleys, coupled with inadequate drainage infrastructure creates an environment conducive to flooding. More erratic and unpredictable rainfall patterns arising from climate change will place greater strain

on planting choices and timing. Projected increases in temperature, coupled with decreases in rainfall during the critical summer months (June-August), are likely to intensify drought conditions in the center of the country.

Building resilience in the agricultural sector to address increased evapotranspiration and water scarcity during these months will be critical to support food security. Changes in soil quality and rain-storm frequency have already forced farmers to change their methods, but much more strategic climate planning is required. In order to support adaptation of farmers to the detrimental effects of climate change, this project will help farmers to address soil erosion and damaging floods and landslides by strongly promoting reforestation initiatives; will help to secure livelihoods by mainstreaming disaster risk management activities into agricultural interventions; will provide plans and technical assistance to farmers to halt land degradation and to engage in sustainable practices, such as the planting of appropriate crops for steep sloped land; will promote livelihood diversification; and improve small-scale irrigation infrastructure to agricultural areas at the watershed level.

The project will offer broad support to the Haiti Takes Roots (HTR) platform, helping to strengthen the platform and the MoE's capacity to drive it. In the context of post-Matthew Haiti, there is renewed commitment from donors to work at the landscape and watershed levels to help improve natural resource management and increase resilience and adaptation. These commitments include a US$6.2M United Nations Environment Program (UNEP) project launched in the South Department in February, 2017, "Ecosystems Approach on the South Coast of Haiti" intended to increase resilience to climate change risks and reduce disaster risk through an ecosystem management approach, targeting protected areas and fragile ecosystems in the Greater South; a project under design with the Global Alliance for Clean Cookstoves with roughly US$50M of committed Canadian funds to develop a comprehensive strategy and national action plan for catalyzing the market for clean and efficient cookstoves in Haiti, including focus on fuels and fuel supply chains; and others.

In this context, the proposed project will build partnerships with these and others through the Haiti Takes Roots initiative with the larger objective of all working toward common goals of: a) improving the quality of soil and vegetation, b) increasing tree canopy cover, c) promoting the use of sustainable agro-forestry and renewable energy, and d) strengthening the overall preservation and protection of forests through alleviation of poverty and development of alternative livelihoods for communities.

The project will specifically work to build capacity at all levels:

- *At the national level*, the project will improve the policy and institutional frameworks and capacity of the MARNDR and MoE to manage the evolving risks related to climate change and to take effective advantage of opportunities in modernizing agriculture and natural resources management. It will also support the Government to take leadership of the HTRs initiative and assume the coordination role of bringing donors together around HTR's common themes. The project will assist the Government in developing a "National Sustainable Development Plan and National Policy for Sustainable Development" and the capacity to implement it. With the project investments in infrastructure, training and human capital, after the 5 year project the MoE will have the capacity to lead larger donor-funded projects.

- *At the watershed level*, the project will assist community-level organizations to develop watershed management plans. Prior to project effectiveness, JP/HRO, with a grant from PROFOR, will design and pilot a highly participatory and localized "Watershed Management Planning Methodology," which will include international best practice and lessons learned, technical analysis and GIS-based mapping of

various physical, social, economic and governance aspects, with the purpose of bring used to develop sustainable, community-led watershed management plans (Description of this work can be found in Annex II). After these tools are designed and piloted, they will be used in project watersheds to develop community-led watershed management plans.

- *At the farm level*, it will empower farmers to plan for comprehensive use of their land. Internalizing lessons learned from the World Bank's flagship Natural Resources Development Project in Albania (P082375), the JP/HRO PROFOR work will also undertake detailed diagnostics in each watershed to develop a menu of "investment-ready" options such as the Sustainable Land Management practices (cf. Annex IV), based on the developed watershed management plans. These "investment-ready" options will comprise the list of possible investments for the farm-level interventions through sub-projects, and be coordinated to collectively support the objectives of the watershed management plans. Farmers cooperatives obtaining a sub-project will receive accompanied technical assistance to aid them in organizing their own farms as part of the larger watershed management plan.

In considering how to ensure the sustainability of the project and the continuation of the objectives supported under Haiti Takes Roots, the MoE has considered becoming party to the Caribbean Biodiversity Fund (CBF). The CBF is a regional endowment fund whose objective is to provide a sustainable flow of resources to support activities that contribute substantially to the conservation, protection and maintenance of biodiversity of its participating countries4.

Proposed Components

The proposed project will include four components: (i) strengthening of institutional and organizational capacity for landscape level interventions; (ii) Investments to promote agriculture and ecosystems resilience in the areas of interventions; (iii) Project management, monitoring and evaluation, and (iv) Emergency Response Mechanism.

Component 1: Strengthening of institutional and organizational capacities for landscape level interventions (US$10M total - US$3M JP/HRO, US$3M IDA, US$4M GEF)
This component will support national efforts to create landscape approaches to resilient agriculture ecosystems by building capacity at the national level with the MoE and MARNDR and at local level with the branches of line ministries and farmers' organizations. The project will also support a national level program for sustainable agriculture under a landscapes approach, including coordination with key line Ministries and other strategies and programs. Specifically the component will support:

- *Institutional capacity building*: to strengthen capacities within key line Ministries, including MARNDR and MoE, as well as work with their associated regional and departmental branches. Capacity building will focus on improving working infrastructure, investments in human capital, development of assessment tools and building resilience. It will support: (i) targeted technical training activities for Ministries; (ii) field schools, exchange visits and workshops for landscape restoration and protection (planning, implementation and monitoring); (iii) the creation of comprehensive mapping tools, specifically to be applied to the project

[4] Currently, the participating countries include Antigua and Barbuda, the Bahamas, the Dominican Republic, Grenada, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines.

intervention area; and (vi) linkages with national climate modeling, forecasting and early-warning systems, helping strengthen climate adaptation capacity. Opportunities will be explored to link to the World Bank project HT Strengthening Hydro-Met Services (P148259).

- *Support a national level sustainable landscape management approach to agriculture and watershed management*: to provide structure and support the coordination of a national level platform to adopt a landscape approach to agriculture and watershed management, helping define and support appropriate roles for departmental and municipal authorities in preparing participatory land-use plans for targeted landscapes. Specifically, it will do two things: (i) support the development of a national "National Sustainable Development Plan and National Policy for Sustainable Development" to be jointly designed by MoE and MARNDR and (ii) provide support to the Haiti Takes Roots platform.

- *Support to farmer organizations*: to strengthen capacities of cooperatives and other types of farmers' organizations in technical and financial management, and support them to meet the legal and institutional requirements for managing investments from the RPL project or other initiatives.

- *Sustainable Financing of Resilient Productive Landscapes and Environmental Investments*: The project will facilitate the participation of Haiti in the Caribbean Biodiversity Fund (CBF). The creation of the CBF was realized through a Bank-led GEF project that closed in December 2016. The project would use IDA resources support Haiti to meet the legal and administrative requirements needs to set up associated national Trust Fund, such as the "Haitian Fund for Biodiversity" (Fond Haïtien pour la Biodiversité); and gain membership to the CBF in line with the existing 5 member countries of the CBF. This would also include activities to develop and endorse (inter alia) the criteria for selecting eligible investments to be supported by the fund in Haiti. Given the project's emphasis on building climate resilience, the determined investments will be limited to investments supporting climate adaptation in watersheds and support for building climate resilient agriculture and ecosystems. The Bank and GEF have partnered in several countries to establish similar mechanisms, and the experience of Mexico, Peru' and Panama among others will be taken into account. Some initial funds are available from donors and other stakeholders (such as the Audubon company) to capitalize such fund. Additional capitalization amounting to no more than US$3M will be funded through the GEF-LDCF

Component 2: Investments to promote agriculture and ecosystems resilience (US$14M total - US$2M JP/HRO, US$9M IDA, US$3M GEF)

This component will provide support to farmers and their organizations within selected watersheds in the targeted hydrological zones to increase productivity, diversify agricultural production and boost landscape resilience to the impacts of climate change. This will be done in the form of watershed management plans and sub-projects to qualifying producers' organizations. Specifically this component will *Support the development of community-led sustainable watershed management plans with integrated climate adaptation measures in multiple watersheds in the selected hydrological zones*. The methodology for developing these participatory plans is currently being developed by JP/HRO with PROFOR financing according to the National Adaptation Plan. It will also *invest in farm-level interventions through sub-projects to producers' organizations*. This will involve open calls for proposals and allow qualified farmers groups to develop sub-project proposals in accordance with the watershed management plans. During preparation, the team supported by NGO JP/HRO will create detailed plans for tailored potential investments in each target watershed. Sub-project proposals will be based on a positive list of potential end eligible interventions. However, a preliminary assessment suggests

that investments channeled through this component may include:

- *Investments in resilient, sustainable agriculture*: Investments that focus on increasing the climate resilience and sustainability of agricultural production systems though the application of climate smart agricultural practices and land management tools. This will include investments and training in: (i) conservation agriculture, (ii) promotion of agroforestry systems; (iii) water and soil conservation; (iv) promotion of water harvesting and small-scale irrigation techniques allowing water stewardship; (v) sustainable grazing and livestock management; (vi) plantations and re-afforestation; etc. ;
- *Intensification, diversification and commercial agriculture*: To improve access to markets and support the development of commercial agriculture value chains, through innovative technologies for production, storage and processing, and a stronger enabling environment at the site level. Activities will be decided based on preliminary assessments of the watersheds, but may include: (i) support to market-driven supply chains; and (ii) dissemination of technologies for sustainable agricultural intensification and diversification; and ;
- *Build Landscape Resilience*: Investments that will focus on building the climate resilience of the landscape through targeted interventions. These will potentially include: (i) protection of key public infrastructures (bridges, access roads, canal and drains, etc.) and watersheds by reducing erosion and sedimentation through soil restoration works and techniques; and (ii) strengthen the management of natural resources to improve the environment and living conditions.

Component 3: Project Coordination and Monitoring and Evaluation (US$3M – IDA)

Project Management: This component will finance goods, equipment, incremental operating costs, studies, and in general eligible expenses associated with the overall management of the project implementation. It will also provide resources to monitor progress and evaluate results and impact. For this purpose, an impact evaluation baseline will be established by project effectiveness.

Component 4: Emergency Response Mechanism (US$0.0)

A component with zero allocation will be created to allow the Government to respond quickly in case of an eligible emergency under a harmonized Response Mechanism across the Bank portfolio in Haiti. If an eligible emergency occurs, the inclusion of this component it would provide a conduit for the use of uncommitted funds under the project to implement key activities by the appropriate agencies to respond to the emergency. The component will include triggers and conditions for the use of funds. This provision is included in most investment projects in Haiti in keeping with the recommendations of the 2011 World Development Report (WDR) on Conflict, Security and Development and with the operational experience acquired in Haiti since the 2010 earthquake. A harmonized IRM Operational Manual used for other projects in Haiti with the same component will be adopted and will clearly outline the triggers, eligible expenditures and procedures for tapping into the contingency.

Beneficiaries: Nationally, the labor force relying on Agriculture is approximately 4 million people[5]. In the selected hydrological zones spanning the departments of Nippes and Grand Anse, the total number of farmers is estimated to be approximately 300,000. The primary beneficiaries of this project are currently estimated in the range of 15,000 to 20,000 organized farmers in selected watersheds within the target hydrological zones. A more detailed assessment will be done during the incoming stages of the project preparation.

[5] Size of the Haitian labor force 4,594,342 (World Bank, 2014), with 87 percent of the workforce relying on agriculture (Haiti Country Partnership Framework, 2016.)

Gender Considerations: Gender assessments conducted by the World Bank under the RESEPAG projects find that while women are responsible for a large share of agricultural activities and participate in productive organizations, they remain disadvantaged in areas like decision-making, control of assets, and access to economic benefits. Reasons for these include higher levels of illiteracy among women, lack of formal legal documentation, traditional division of labor and social norms. The World Bank Haiti Poverty Assessment 2014 and Country Partnership Framework 2016 found that in rural areas agricultural responsibilities at the household level are traditionally delineated by gender and that female-headed households have lower access to agricultural inputs (such as seeds and fertilizers), negatively impacting productivity, further adding to gender gaps in income.

The RESEPAG II project has made great strides in gender inclusion through hiring a gender coordination, and adding incentives to the matching grant facility for those sub-projects presented by women groups. The proposed project will incorporate these lessons learned, and specifically tailor interventions to the unique needs of women farmers and target woman's groups in project intervention areas.

Climate and Disaster Risk Screening: The proposed project was screened at the PCN level for climate and disaster risk. The summary of results showed that within the Project's focus on crops and land management, the major risks are extreme temperature, extreme precipitation and flooding, drought, strong winds and geophysical and other hazards, and specifically earthquakes. There are high overall potential impacts, both current and future, on soil and land, given the current state of Haiti's landscapes. However, the project services - capacity building, long-term strategic planning and emergency response component - are all helping to reduce the impact of climate change on the target area.

1. Overall Risk and Explanation

The overall preparation risk is Substantial. There are several areas of Substantial risk for this project:

1. Macroeconomic risk and Governance. In terms of macroeconomic stability, although the GoH has managed to maintain stability since 2011, future uncertainties like the low government revenues, low prices of oil impacting revenues from PetroCaribe, and slowing economic growth leads to risk for macroeconomic stability in the coming years. The Governance will be determined after the new government is fully in place, but uncertainties around this could pose a risk to the enabling environment.

2. Political and Governance. Politically, the situation is volatile and the outcome of the recent elections is uncertain. However, the new President appears to be a big proponent of agriculture, and has specifically touted landscape approaches at a watershed level. The recent elections provide some assurance that the government may remain stable for some time.

3. Institutional. The project proposes to create a technical Project Implementation Unit (PIU) that is a fully blended unit merging the coordination efforts of the Ministries of Agriculture and Environment. The project proposes to build on the capacity of the existing PIU of the current agriculture project to leverage investments in human capital, but create a separate PIU for the technical direction of the project. Although project design is taking measures to mitigate the institutional risk by relying on an established PIU and minimizing the implementation responsibilities of MoE, the current donor projects managed by the PIU in MARNDR still face delays due to the implementation capacity. This arrangement is being used by the World Bank HYDROMET

project and although it has been successful, still faces coordination challenges between the two PIUs. The proposed project will mitigate this risk through emphasizing the need for strong coordination.

4. Technical design and sector policies and strategies. Although the project design has been developed over a two year collaboration with public and private experts from across the sector and it is perfectly aligned with the new President's policies for watershed interventions in the South, it still faces challenges. For example, given the influx of money into the South after the 2016 hurricane, many other donors are engaging in similar activities and coordination will be a challenge. In addition, the model of applying landscape-level interventions at a watershed level has not been done before by the Bank in Haiti and as such the model is untested. At the same time, the Bank is resuming engagement with the Ministry of Environment is resuming after a long period of disengagement. The team will mitigate these risks through upfront coordination and collaboration with other donors, applying tailored lessons learned from other similar Bank projects elsewhere and relying on the capacity within the Ministry of Agriculture while simultaneously building the capacity within the Ministry of Environment.

5. Fiduciary. General lack of financial and procurement capacity, coupled with high levels of staff turnover make the fiduciary risk substantial. These risks will be mitigated through intensive training to project staff.

Other Risks:

6. Endogenous shocks. Three-quarters of Haitians and 95 percent of the poor suffer from at least one economically damaging shock per year. In 2004, floods aggravated the ongoing political crisis, causing damage to the economy estimated at 5.5 percent of GDP. In 2008, Haiti was hit by four hurricanes, causing a contraction in agricultural production by more than 7 percentage points and a rise in domestic food prices. The 2010 earthquake was destructive and led to significant loss of human life and displacements, as well as damage to infrastructure, dwellings, and, to a lesser extent, jobs. In 2012, the country was hit by two hurricanes (Isaac and Sandy) and one drought, leading to negative growth of 1.3 percent in the national agricultural sector. The endogenous shocks in Haiti are real, frequent and devastating. They have the potential to severely impact or derail a project's implementation. Although these shocks are precisely why this project is so necessary, ironically they may also pose a risk to implementation if the project areas are affected. The project's objective is to build resilience of agriculture and ecosystems in the target watersheds and if successful, will, by design, help to mitigate the risks that an endogenous shock will have on the landscape.

B. Economic Analysis

1. Briefly describe Project's development impact in terms of expected benefits and costs

The Resilient Productive Landscape Project is designed to restore ecosystem services at a watershed level to safeguard and enhance agricultural production, reduce vulnerability of economic and ecological systems to external shocks, and to strengthen capacities for the long-term sustainable management of those landscapes beyond the project intervention area. The investment will result in the provision of environmental services, private and public goods, including enhanced watershed services encompassing soil conservation, hydrological services, and biomass supply. Co-benefits of these interventions, including important climate co-benefits, will be carbon sequestration and mitigated/avoided greenhouse gas emissions, the conservation of biodiversity, reduction in forest loss and forest degradation, improved sustainable livelihoods for local communities and

improved climate change resilience.

The proposed project intends to include US$7M of GEF Least Developed Country Resources (LDCF). The objectives of the project perfectly align with the GEF-6 focal area objectives of climate change, biodiversity and land degradation. It responds directly to LDCF/SCCF Climate Change Adaptation Strategy by reducing the vulnerability to the adverse impacts of climate change, increase adaptive capacity to respond to the impacts of climate change, and the transfer and adoption of adaptation technologies. The incremental GEF support will generate environmental benefits by promoting the uptake of sustainable land use management and biodiversity conservation practices by agro-pastoral communities in order to reduce land degradation and support sustainable development. The global co-benefits of the project activities will include climate change mitigation in the form of carbon sinks due to watershed-level reforestation, conservation of biodiversity, including rate and important flora and fauna, and soil conversation and restoration to prevent run-off into the ocean.

2. Rationale for public sector provision/financing, if applicable

Historically, public sector finance has invested in land-level land management projects, often within the geographic delineation of a watershed, providing a catalogue of lessons learned and best practices. One of the most salient being that carefully targeted public sector investment is needed at the watershed level to facilitate investments in landscapes for reducing degradation and increasing resilience. After Hurricane Matthew, the need for investment in early warning systems, agricultural resilience and institutional capacity for a response, was again highlighted.

This project proposes to enhance the resiliency of agriculture and natural resources in selected watersheds in hydrological zones in the Grand Sud (the greater south), while building the capacity of stakeholders at the national, departmental and community levels and establishing a source of revenue for continued work. It will help to support important and much needed field-level investments in the form of matching-grants for sub-projects. These investments will be focused on building the resiliency in the upper and lower watersheds, and will be beneficial not only to the farmers' organizations receiving the sub-projects, but also to the food security and livelihoods of the region. Investments in simple applied technologies will help to reduce erosion, improve soil quality, minimize sapling loss, increase reforestation, and minimize agricultural losses in extreme weather events.

Public sector financing will not only facilitate field-level improvements at the watershed level, it will also help build the capacity to implement and sustain these activities. Resources to help build the capacities at the national level - within the MoE, MARNDR– and at the departmental and local level – in regional offices and community groups – will help to improve coordination, strategic planning, and service delivery for landscape-level services, with potential nation-wide benefits. The project's support to the national initiative Haiti Takes Roots will bring donors together around themes of supporting reforestation, investments in improved sources of household fuels, and investments in nation-wide landscape level approaches. If strengthened, the platform Haiti Takes Roots could have the potential to mobilize Haiti's many donors to act together towards the same objectives.
There is also an important public role in ensuring the sustainability of actions taken to protect and improve watersheds. The project proposes to help ensure financial sustainability in a novel way – through Haiti's participation in the Caribbean Biodiversity Fund. Supporting Haiti to become party to this Fund and leveraging

other donor funding to capitalize it will ensure sustainable financing for MoE and MARNDR to support resilience of agricultural and natural resource. In addition, it will establish and fund a public unit to channel the revenues, resulting in additional capacity for the GoH.

3. Value added of Bank's support

The proposed project is the continuation of work undertaken by the World Bank together with the MoE and MARNDR, specifically the Resilient Productive Landscape Dialogue, where the Bank together with GoH hosted global experts to spur a dialogue on global best practices for landscape management and building resilience. During this workshop, partners agreed that it was necessary to do a literature review to catalogue lessons learned and best practices from Haiti's own vast experience with donor funded landscape-level land management projects. The Bank supported the production of a literature review – "Landscape-level Land Management Projects in Haiti: Cases Spanning Eight Decades." Through this analytical work, trends and policy options emerged to develop a strong initiative. Out of the analytical work and ongoing dialogue with GoH, the Bank and JP/HRO developed a proposal for PROFOR to develop watershed assessment tools to determine community needs related to watershed management and building resilience in target watersheds. The outcome of this ongoing work will inform preparation and implementation of the proposed project.

The challenges that face natural resource management in Haiti require international expertise and experience. The completed analytical work pointed to several best practices and lessons learned, but also showed significant failures that have plagued the sector for decades. International expertise and lessons learned from across the Bank in integrated landscape approaches from places like India, China, Madagascar and others, will be critical for developing tailored approaches and avoiding historical downfalls. In addition to having the international expertise, the Bank's convening power will bring donors and partners together around the Haiti Takes Roots Initiative.

In the Agriculture sector, the Bank has a long-standing collaboration with MARNDR, focused on increasing productivity for small-holder farmers through access to improved inputs and processing technologies. In the Environment sector, the Bank is just now establishing a new relationship – one which will benefit from the capacity building and institutional strengthening provided through the project. The project is also closely linked to the RESEPAG II project and the RESEPAG II additional financing. The geographic areas will overlap, and while the RESEPAG projects provide assistance to farmers and farmers groups for improved production and access to markets, this project will provide complementary service to improve agricultural resilience and associate natural resource management for more resistant crops and better growing conditions. In addition, the project preparation stage will explore linkages with the World Bank project HT Strengthening Hydro-Met Services (P148259), which aims to strengthen Haiti's hydro-meteorological and climate information services.

4. Brief description of methodology/scope and next steps

An economic analysis will be conducted to determine With and Without project situation as used for estimating incremental benefits generated by the project. The proposed project will support demand driven initiatives from organized producers engaged in production systems and productive chains, including dairy/bovine, roots/tubers, maize, artisanal fishing, pulses, specialty coffee, plantain, sugarcane, apiculture, fruits (pineapple, mango, banana, etc.), and poultry. Benefits would be derived mainly from the support to their demand driven livelihood proposals and from the improvement of market access for environmentally friendly production systems in the

project's areas. Primary beneficiaries of these subprojects are expected to benefit in terms of income gains due to increased value addition through sustainable production and sale of goods and services along with the broader social and environmental benefits of adopting sustainable production systems. Taking into account the baseline situation, if the environmental as well as livelihood situation in the project areas were to continue to decline, slowing a negative trend would also represent a project benefit. For example, slowing a negative deforestation and forest degradation trend would be a benefit that can be quantified by the amount of incremental carbon that is not emitted into the atmosphere compared to the without project situation. Likewise, if household incomes remained stable under a with-project situation compared to a possible negative trend due to declining agricultural productivity, deforestation, climate change, and other possible impact factors, the incremental benefit achieved could be accounted by the project.

Net Present Value (NPV) and Benefit-Cost Ratio (B/C-Ratio) would be used as criteria to assess the economic feasibility of the project. However, not having determined yet the specific watersheds of project intervention, it is presently difficult to calculate the return on investment of the project, as there is not yet accurate information for each hydrological zone on the value of the prevailing economic production activities, or the income of farmers; nor the valuation of ecosystem services currently being generated at those sites. Therefore, during the final selection of specific watersheds of intervention within the identified hydrological zones, baselines for these variables lines will be established, and used to calculate the return on investment.

C. Implementing Agency Assessment

The project will be implemented jointly by the MARNDR and the MoE. A Project Implementation Unit (PIU) will be created, pursuing the following objectives: (i) having a joint technical coordination MARNDR/MdE; and (ii) capitalizing on the MARNDR's existing capacity and experience with World Bank projects' management, especially on the fiduciary aspects.

MARNDR began implementing the US$5M RESEPAG project in 2009. Within MARNDR, the project will leverage the existing capacity – specifically in safeguards and fiduciary aspects - of the coordination unit currently supporting RESEPAG II and other donor projects. Within MoE, the general capacity is much weaker. The project will collaborate closely with other development partners and receive parallel financing from the NGO JP/HRO as well as others.

A Project Steering Committee will be created at national level, including MARNDR, MdE, co-financiers, HTR, and other key stakeholders including donors.

At regional level, the project will coordinate with the deconcentrated branches of MARNDR and MdE at Departmental and Communal levels, as well with the other local stakeholders. In the next stages of project preparation, the layout of the project presence in the areas of intervention will be discussed with the counterparts and detailed in the project documents.

Note to Task Teams: The following sections are system generated and can only be edited online in the Portal.

SAFEGUARDS

A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The proposed project will initially target two watersheds. Given the increased need in the southern departments after hurricane Matthew, both of the watersheds will be in the South. Preliminary selection criteria have been prepared and based on this, field visits, and government consultations, the preliminary watersheds selected are the Grande Anse and Nippes. This will be validated during preparation.

The project includes physical interventions and capacity building activities. The former will largely encourage sustainability and resource use efficiency; land and water conservation; diversification to increase efficiency and resilience; etc., and thus will have many beneficial impacts. It includes field-based interventions and activities such as (i) conservation agriculture, (ii) promotion of agroforestry systems; (iii) water and soil conservation; (iv) promotion of water harvesting and small-scale irrigation techniques allowing water stewardship; (v) sustainable grazing and livestock management; (vi) plantations and re-afforestation; etc. Under the intensification and diversification of commercial agriculture, the project will include: (i) support to market-driven supply chains; and (ii) dissemination of technologies for sustainable agriculture. Under the Landscape Resilience activity, the project will include: (i) protection of infrastructure and watersheds through soil restoration works and techniques; and (ii) strengthen the management of natural resources to improve the environment and living conditions. However, these interventions are not expected to include physical construction of works.

However, the potential for negative impacts exists. These include inadvertent propagation of exotic species, replacing natural forest with introduced species, loss of habitat and soil in the event that conservation actions or water harvesting actions are not executed adequately; dissemination of technologies that have negative impacts such as noise or pollution; introduction of management systems that do not take all environmental, habitat, or ecosystem aspects into consideration, etc.

The project is therefore categorized “B” (moderate impact).

Mitigation measures will include adhering to best agricultural and environmental practices; extensive consultation with existing partners, NGOs and conservation groups; comprehensive participation of stakeholders; adequate public disclosure; and taking corrective action rapidly as needed.

B. Borrower’s Institutional Capacity for Safeguard Policies

In order to address impacts during implementation, the Client will prepare an Environmental and Social Management Framework (ESMF).

During preparation, the WB will review the ESMF, and will assess the capacity of the implementing agencies (MARNDR and MDE) to determine their capacity to apply the ESMF. The capacity of the MARNDR to apply a similar document under the RESEPAG II project was recently (December 2016) assessed as being adequate; furthermore, the WB recommended to the MARNDR to enhance its environmental and social team by one additional socio-environmental specialist. Thus the

capacity of the RESEPAG is likely adequate.

Depending on the role to be played by the MDE as the second implementing agency in the current project, the environmental and social safeguards capacity of this ministry may need to be enhanced. This is especially important if the MDE will implement physical activities in the field.

C. Environmental and Social Safeguards Specialists on the Team

Nicolas Kotschoubey, Asli Gurkan, Felipe Jacome

D. Policies that might apply

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	This applies to general environmental and social impacts (except involuntary resettlement). Mitigation measures in the ESMF will include: a) using only native species in forestry and at the landscape level (however at farm level, the project will also promote crop trees including exotic species e.g., mango (native to S. Asia) avocado (native to Mexico), etc.) b) ensuring that conservation actions and water harvesting actions are executed to the highest standard through close supervision c) adhering to best agricultural and environmental practices d) adhering to integrated pest management techniques to minimize pollution e) extensive consultation with existing partners, NGOs and conservation groups f) information dissemination, learning and capacity building g) comprehensive participation of stakeholders h) adequate public disclosure and i) taking corrective action rapidly as needed.
Natural Habitats OP/BP 4.04	TBD	This policy would apply if project activities take place in protected areas, key biodiversity areas or similar sites; screening using the Integrated Biodiversity Assessment Tool (IBAT) for important habitats and species in the target area will be done. If no project activity takes place in these areas, the policy would not apply. This will be determined during Preparation.
Forests OP/BP 4.36	Yes	The policy applies to projects that will finance activities in forests, including if mostly positive impacts are expected; this policy therefore applies; the ESMF will incorporate policy requirements for small-holder forestry and clarify that no commercial scale

		interventions will be supported.
Pest Management OP 4.09	Yes	Given that the project involves significant interventions in agriculture, and that the improvement of crop production is included, it is likely that pesticides will be used; thus this policy is triggered. The types of activities that may require pesticides include dissemination of technologies for sustainable agricultural intensification; forestry; agricultural storage programs; and livestock health programs, which may require pesticide use, which the project would purchase. The project will ensure that appropriate personal protection equipment (PPE) will be available to all users of pesticides.
Physical Cultural Resources OP/BP 4.11	TBD	This Policy is TBD, contingent on screening the project area to determine if it includes any cultural resources that may be affected, or if a chance-finds procedure will need to be developed based on the specific context of the project area.
Indigenous Peoples OP/BP 4.10	No	Indigenous People are not present in Haiti
Involuntary Resettlement OP/BP 4.12	No	The project will not invest in any physical construction of works. For this reason, the project is not expected to cause any temporary or permanent involuntary displacement of people as defined by the policy. Nonetheless, the environmental specialists hired by the PIU will be trained to screen out any potential involuntary resettlement, as guided by the ESMF. Any activity that may potentially lead to changes in land-tenure agreements, result in the establishment of protected areas, or may cause restriction access to resources will be excluded from the project. The environmental screening form, which will be part of the ESMF will also include these questions. In addition, the PIU responsible staff will receive a training on how to screen out these impacts.
Safety of Dams OP/BP 4.37	No	The project will not finance any activities related to dams, as defined by the WB; nor will the project finance activities dependent on the operation of dams. The ESMF will include provisions to screen out any dam-related activity. This policy will not apply.
Projects on International Waterways OP/BP 7.50	No	The Project will not affect International Waters as defined under the WB policy.
Projects in Disputed Areas OP/BP 7.60	No	The Project will not take place in any Disputed Areas as defined under the WB policy.

E. Safeguard Preparation Plan

Tentative target date for preparing the Appraisal Stage PID/ISDS

Mar 20, 2017

Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

In order to address these impacts during project implementation, the Client will prepare an Environmental and Social Management Framework (ESMF).

The ESMF will be consulted in-country, and disclosed publicly by the Client and the Bank, prior to Appraisal. ESMPs for physical interventions will be prepared by the implementing agencies, consulted with stakeholders, and disclosed locally, prior to the start of implementation.

The ESMF will include provisions specific to procedures, screening and application of mitigation measures under Component 4 (Emergency Response Mechanism) according to Best Practices already implemented by the Bank.

The ESMF will include provisions for all pesticide use and will include funding for training and the application of an Integrated Pest Management Plan.

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Note to Task Teams: End of system generated content, document is editable from here.