INTER-AMERICAN DEVELOPMENT BANK

HAITI

PRODUCTIVE INFRASTRUCTURE PROGRAM III

(HA-L1091/HA-X1036)

ENVIRONMENTAL CATEGORY: A

ENVIRONMENTAL AND SOCIAL MANAGEMENT REPORT (ESMR)

November 2014

ESG Project Team: Ernesto Monter Flores (VPS/ESG); Stefanie Brackmann (ESG/CDH); Serge-Henri Troch (VPS/ESG); Graham Watkins (VPS/ESG); Elizabeth Brito (VPS/ESG); Melissa Barandiaran (VPS/ESG); Crystal Fenwick (VPS/ESG); France François (VPS/ESG); Soraya Senosier (VPS/ESG); Andy Drumm (VPS/ESG); and ERM (Independent Consultant).

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ABBREVIATIONS

AANNE	Autorité d'Aménagement du Nord/Nord-Est
AFD	Agence Française du Développement
AIA	American Institute of Architects
ANAP	Agence Nationale des Aires Protégées
BWH	Better Work Haiti
CIAT	Comité Interministériel d'Aménagement du Territoire
CNH	Critical Natural Habitat
DR	Dominican Republic
DRA	Disaster Risk Assessment
DRMP	Disaster Risk Management Plan
EA	Environmental Assessment
EHS	Environmental, Social, Health and Safety
EIA	Environmental Impact Assessment
ESDD	Environmental and Social Due Diligence
ESMP	Environmental and Social Management Plan
ESMR	Environmental and Social Management Report
GEF	Global Environment Facility
GoH	Government of Haiti
ICIM	Independent Consultation and Investigation Mechanism
IDB	Inter-American Development Bank
IFC	International Finance Corporation
ISO	International Organization for Standardization
IWRM	Integrated Water Resources Management
MoE	Ministère de l'Environnement
MEF	Ministère de l'Economie et des Finances
MTA	Massacre Transboundary Aquifer
NH	Natural Habitat
OFATMA	Office d'Assurance Accidents du Travail, Maladie et Maternité
OHSAS	Occupational Health and Safety Advisory Services
ONA	Office Nacionale d'Assurance Viellesse
OSH	Occupational, Safety and Health
OSHA	U.S. Occupational Safety and Health Administration
PIC	Parc Industriel du Caracol
PN3B	Parc National des Trois Baies
POD	Proposal for Operation Development
PPE	Personal Protective Equipment
RFP	Request for Proposals
SONAPI	Société Nationale des Parcs Industriels
TC	Technical Cooperation
TORs	Terms of Reference
TTC	Thermotolerant Coliforms
UNDP	United Nations Development Program
USG	United States Government
UTE	Unité Technique d'Exécution
WB	World Bank
WSP	Water Safety Plan
WWTP	Wastewater Treatment Plant
WWTP-P	Domestic Wastewater Treatment Plant

I. INTRODUCTION

A. Summary Table

Country	Haiti
Sector	Infrastructure
Project Name	Productive Infrastructure Program III
Borrower and / or Sponsor	Republic of Haiti
Executing Agency and / or Company	Ministry of Economy and Finance (MEF), through its Technical Execution Unit (UTE) and the *Société Nationale des Parks Industriels* (SONAPI)
Transaction Type	Grant Facility
Total Project Cost (in US Dollars)	US$70million, being US$55 million from IDB and US$15 million from USG[1]
Environmental Impact Category	A

B. Executive Summary

1.1. This Environmental and Social Management Report (ESMR) presents the findings of the Inter-American Development Bank's (IDB) Environmental and Social Due Diligence (ESDD) activities for the proposed operation (HA-L1091) of the Productive Infrastructure Program[2] (the "Program"). Since 2011, through previous operations, the Bank has supported the construction, operation and expansion of the Caracol Industrial Park (*Parc Industriel de Caracol*, "PIC" or the "Project") in Northern Haiti. The PIC's basic infrastructure has been completed and there has been a shift to managing the impacts of the operation of the PIC. There has been an increase in the number of industrial activities with five tenants currently operating in the industrial park, employing more than 3,000 people. The ESMR contains a description of the progress made to date under the three previous grant operations (HA-L1055, HA-L1076 and HA-L1081) in addressing the environmental and social impacts and risks, as well as an update on the risks, impacts, and safeguards' compliance and mitigation measures relating to continuing construction and operational activities of the PIC.

1.2. Similar to the previous grant operations, this operation is classified as Category A because of the potential to cause significant environmental and associated social impacts during construction and operation, specifically: (i) potential uncontrolled development surrounding the PIC; (ii) direct and indirect ecological degradation of the mangrove, sea grass, and coral reef ecosystems in Caracol Bay, a protected area and Critical Natural Habitat (CNH); (iii) negative impacts on local livelihoods and cumulative impacts in the Northern Corridor resulting from poorly managed population influx and economic development. The potential impacts of the current grant operation are incremental in nature as the PIC enters into its

[1] Co-financing in progress (Subject to U.S. Congressional approval and availability of funds)

[2] The PIC program includes the HA-L1055, HA-L1076, HA-L1081 and HA-L1091 operations and will include a 5th operations expected to be approved in 2015.

final phases of development. If not adequately addressed, there is a reputational risk for the IDB as well as a risk of policy non-compliance.

1.3. The Bank support has contributed to enhance the environmental, social, health and safety and labor aspects of the operation of the PIC (i.e. improved transportation conditions, construction of a domestic wastewater treatment plant (WWTP-P) to treat domestic wastewater, improved construction health and safety and preparation of a flood risk model). In addition, two important achievements are worth highlighting: (i) the support provided to the Ministry of Environment (MoE) that led to the declaration of the Three Bays National Park; and (ii) support provided to the *Comité Interministériel d'Aménagement du Territoire* (CIAT) for the preparation of a Northern Regional Master Plan and facilitation of setting up of a Northern Regional Planning Authority (AANNE).

1.4. Nevertheless, there are delays in the implementation of several mitigation measures developed for the previous grant operations. The underlying causes for the limited advancement in implementing environmental and social mitigation measures are: (i) the strained capacities of the Government of Haiti (GoH); and (ii) delays in implementing institutional mechanisms needed to ensure the region's sustainable and planned development, complicating the implementation of a comprehensive approach to the northern area development program.

1.5. In addition, several environmental and social analyses are still pending, including those required to develop socio-economic and biological baselines and disaster risk management, all of which are requirements of the previous operations. The results of these studies may indicate the need for additional mitigation measures.

1.6. In respect to exception to Directive B.11 of OP-703 required for HA-L1081, the permanent WWTP-P commenced operations July 24 2014, when the first line began receiving wastewater. Since that date, 100% of domestic wastewater produced in the PIC has been sent to the permanent WWTP-P, and the two temporary plants have neither received wastewater nor discharged it into the environment.[3]

1.7. Liabilities from previous operations include biodiversity, capacity building, solid waste, risk management and PIC management. These are described in details in the HA-L1076 Liabilities Remediation Plan[4] which requires outstanding conditions from the previous operations to be corrected and/or mitigated.

[3] As long as the project does not discharge wastewater into the environment, the exception will not be necessary. Compliance with directive B.11 will be ensured as the beneficiary, in coordination with the Bank, will engage an independent firm to verify the following: (i) the permanent WWTP-P is operating effectively; (ii) ongoing compliance with the standards established for the PIC; (iii) the beneficiary has acquired the necessary knowledge and capacity to operate and maintain the permanent WWTP-P; and (iv) the monitoring plan proposed has been implemented. Based on the most recent projections, we expect that this could occur in December 2015.

[4] To address outstanding liabilities from HA-L1076, a Liabilities Remediation Plan was prepared for HA-L1081 (see Annex 1 of HA-L1081 ESMR for more details).

II. PROJECT DESCRIPTION AND ENVIRONMENTAL SETTING

A. Introduction

2.1 The overall Program proposes to contribute to the socioeconomic development of Northern Haiti by creating favorable conditions for the establishment of manufacturing firms in the area, thus generating employment opportunities for the Haitian population while, at the same time, minimizing environmental degradation and encouraging sustainable operations. These goals are being accomplished by providing the basic infrastructure and industrial facilities in the PIC, training, and technical and management support required for the expansion and sustainable operation of the PIC. The Program has been developed as a sequence of four Bank grants, totaling US$180 million, over the course of six years with a fifth operation to be developed in 2015. The first grant operations (HA-L1055 and HA-L1076) mainly financed the infrastructure for the PIC, such as roads, factory buildings, a water supply system, a WWTP-P and other basic services within the park. The following operation (HA-L1081) primarily financed the expansion of factory buildings inside the Park and some social and environmental components. To date, approximately 90,000 sq. meters of built space, covering ten factory buildings, ten additional structures for residences, cafeterias, administration offices, and other uses, as well as the aforementioned WWTP-P and water supply system have been constructed.

2.2 For the previous grant operations, SONAPI (*Société National des Parcs Industriels*), the agency responsible for developing and operating the industrial parks in Haiti, signed a Memorandum of Understanding (MOU) with the Ministry of Economy and Finance (MEF) in which the responsibility for the PIC's construction would lay with UTE, the MEF's Executing Agency. However, in May 2014, the responsibilities for the PIC's operations and management returned to SONAPI, whereas UTE has retained the execution of the construction components of the Bank operation.

2.3 This grant operation (HA-L1091) in the amount of US$70 million (IDB funds of US$55 million and USG funds of US$15 million, will continue to finance infrastructure for PIC tenants, including expansion for the anchor tenant, as well as PIC operations, through the following components:

- **Component I – Provision of infrastructure in the PIC (US$62 million[5])**
  This component will finance, among others: (i) factory buildings to accommodate industrial activities and ancillary structures to meet the needs of current tenants and new tenants that will be established at the PIC (e.g., productive warehouses, canteens, and dormitories); (ii) on site infrastructure and equipment within the PIC, notably the expansion of the roads and utility networks; and (iii) civil works' supervision.
- **Component II – Complementary urban projects (US$3.5 million)**
  This encompasses the financing of strategic urban, transport and other small scale projects in the communities surrounding the PIC. These projects include a bus depot next to the PIC; a bicycle lane connecting the PIC to Caracol and street paving in several streets in the three urban areas surrounding the PIC.[6] This component also

[5] US$15 million co-financing from USG in progress (Subject to U.S. Congressional approval and availability of funds).

[6] These projects are at the conceptual stage, with pre designs that allowed for initial budgeting. They are low complexity works, which will be detailed previous to their contracting.

includes funds to support the establishment of the management structure of the Three Bays National Park (PN3B) consisting of basic infrastructure, equipment and personnel for the first year following the first disbursement2015.

- **Component III – Operational Support to SONAPI (US$1 million)**
  This component will provide funds to SONAPI to cover part of the PIC's current operational expenses, while the park's revenues increase as rent holidays expire and tenants expand their production. Funds will be used for the PIC's operation and maintenance, and include personnel and equipment necessary for the implementation of the Environmental, Social, Health and Safety (EHS) system and mitigation measures.

2.4 This grant operation will also finance the costs of administration, monitoring and evaluation, auditing, and contingencies (US$3.5 million). The expected implementation period of the operation is two years. The overall goals of the Program are to increase formal employment and GDP growth in the region, and foreign direct investment in the country. The overall impact of the operations supporting the PIC is to increase: (i) formal employment and GDP growth in the region; and (ii) foreign direct investment in the country. The present operation's goals include to: (i) add 9,270 new workers to the PIC by 2016 (at least 65% of which are for women); (ii) raise the current level of salaries paid to workers up to US$12.30 million annually; and (iii)to increase social security contributions, rents and taxes paid by employers/tenants of the PIC.

2.5 The PIC has been operating since March 2012. Since that time, the operational activity has increased significantly both in volume and type of activity. Concomitantly, there has been a shift to addressing and managing the environmental and social impacts of the operation of the PIC, including the tenant activities.

2.6 **Workforce**. As of June 30th 2014, the PIC had created jobs for 3,324 people, of which approximately 2,906 have been employed by PIC tenants and an additional 418 by contractors and service providers. These numbers are projected to be over 5,000 by the end of the year with long-term projections presented in Table 1 below.

Projected Job Creation	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
S&H Global (Textile)	1,340	2,800	4,200	5,600	7,000	9,100	10,500
Peintures Caraïbes (Paint)	80	100	167	250	300	300	300
Safi Apparel (Textile)	0	279	500	1,000	1,500	2,250	3,250
Sisalco (Manufacturing of Sisal)	0	0	100	200	300	400	400
UB Fragrance (Perfume)	0	0	60	80	100	120	140
Goal Exports (Textile)	0	0	0	600	1,200	1,200	1,200
Kaytek (Construction)	0	0	0	100	100	100	100
Other Tenants (Estimated)	0	0	0	0	500	500	500
TOTAL	**1,420**	**3,179**	**5,027**	**7,830**	**11,000**	**13,970**	**16,390**

Table 1 – Estimated Job Creation (Year-End Totals) to 2018

2.7 **Schedule.** Construction of the PIC began in November 2011 (under HA-L1055) and has advanced overall at a rapid pace. The anchor tenant (S&H Global) began operations on March 31, 2012, initially limited to sewing and embroidery. Since the end of August 2014

construction has been limited and the lead construction firm (Estrella) has around 50 employees' onsite. Construction activities under HA-L1081 are expected to increase before the end of the year with amongst others the construction of factory buildings for S&H Global and other services, roads and utility networks that are expected to be finalized in 2015. Construction workers could reach 350 at peak times with 250 workers on average during the works (expected to last 6 months). Similar number of workers is expected for this grant operation.

2.8 **Industrial Activity at the PIC**. As indicated in Table 1, the activity at the PIC is mostly in textile manufacturing by the anchor tenant. There is also a smaller manufacturing company, as well as one paint mixing company, and one perfume company. Each company's activities need to be managed in line with the PIC's EHS standards. Each of the five current tenants has signed an agreement with SONAPI that include specific EHS requirements with the exception of the first two tenants (S&H Global and Peintures Caraïbes) which instead reference the Rules and Regulations of the Park. Two more tenants have also been confirmed and are pending startup.

2.9 The start of textile washing by S&H Global, originally scheduled to start by end of September 2013, is postponed until testing of their effluent is done to determine the needs for pre-treatment to ensure effluent compatibility with the WWTP-P requirements.[7] Dyeing operations were scheduled for 2015 but have been postponed.[8] It is important to note that a fully EHS compliant industrial WWTP will be designed and constructed with funds from the previous operation (HA-L1081) to receive the effluents of the tenants industrial processes.

2.10 **PIC Facilities**. On top of the facilities mentioned in 2.1 the PIC has a power plant and a temporary facility for the storage of waste.

B. Environmental and Social Setting

2.11 The PIC is being built on a 250 ha greenfield site in the rural community of Caracol, situated on the plains between the northern massif and the Atlantic Ocean. The site is essentially flat with slight variations in topography ranging from 8 to 13 meters above sea level with a general slope of less than 0.5 percent towards the Trou du Nord River. The communes of Caracol and Fort Liberté, in particular, are coastal towns located close to ecologically sensitive areas (mangroves, coral reefs and fisheries) and cultural assets (see Figure 1). Caracol lies about 4 km to the north of the PIC and approximately 25 km southeast of Cap-Haïtien. The PIC site is bisected by the Trou du Nord River, which is bordered by riparian vegetation. The river floods seasonally along the length of its course, inundating riparian habitats, and empties into Caracol Bay approximately 4 km downstream.

[7] A new start date has not yet been set as this will depend on the results of the wastewater analyses scheduled for September 2014.

[8] The start date for dying activities has yet to be confirmed by S&H Global but will require a two-year window of anticipation.

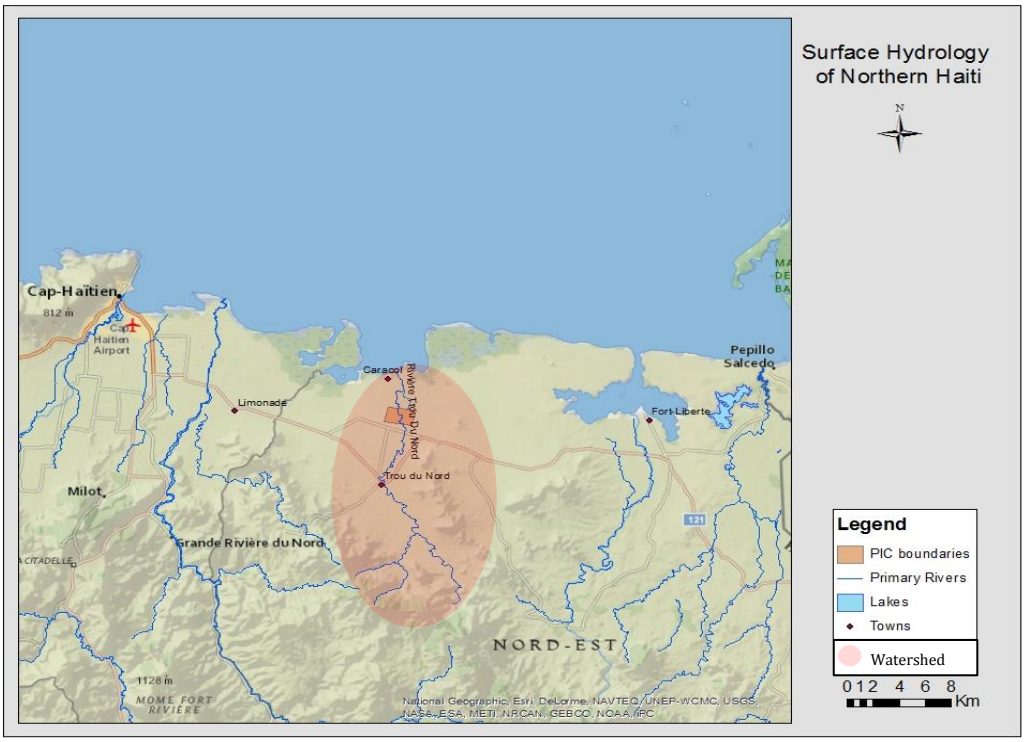

Figure 1 – Surface hydrology of Northern Haiti and PIC boundaries

2.12 Because of the overall development of the area for which the PIC will act as catalyzer, the environmental footprint of the PIC is broader than the actual project site and extends the length of the Northeastern Corridor. The Northeastern Corridor is located along National Route 6 (RN6), extending from Ouanaminthe in the east, on the border with the Dominican Republic (DR), to Cap-Haïtien in the west.

2.13 **Coastal Environment.** Haiti's northern coast is characterized by low-lying alluvial coastal plains. Caracol Bay includes an estimated 5,250 ha of healthy mangroves (mainly red mangroves, or *Rhizophora mangle*), which represent more than 18% of the remaining mangroves in Haiti. The sheltered bay also includes eelgrass beds and is bounded by a fringing coral reef area of around 900 hectares that extends over 20 km. This area is considered a critical natural habitat under IDB Operational Directive B.9 of the Environment and Safeguards Compliance Policy OP-703. Caracol Bay provides an important habitat for endangered species[9], including turtles and manatees, and its mangroves provide valuable shoreline protection services. Local communities depend on resources from this system, particularly through fisheries, including those containing demersal finfish, conch, shrimp and lobster, and through exploitation of mangroves for

[9] The coral reef maintains stands of endangered Staghorn Coral (*Acropora cervicornis*; IUCN Red List Critically Endangered/ESA Listed), Elkhorn Coral (*Acropora palmata*; IUCN Red List Critically Endangered/ESA Listed), Lamarck's Sheet Coral (*Agaricia lamarcki*; IUCN Red List Vulnerable), and Pillar Coral (*Dendrogyra cylindrus*; IUCN Red List Vulnerable). Two other IUCN Red Listed species have been observed in fishers' catches including the Nassau Grouper (*Epinephelus striatus*; Endangered), and the Loggerhead Sea Turtle (*Caretta caretta*; Endangered). The Trou du Nord River is also thought to be home to a species of fish, *Limia pauciradiata*, which is endemic to the Trou du Nord River and Grand Riviere du Nord. This will be confirmed by the pending biological baseline study.

firewood, charcoal and building materials. The establishment of evaporation ponds for the production of sea salt also contributes to the loss of mangroves and a consequent increase in vulnerability to coastal flooding.

2.14 The GoH led by CIAT and the MoE declared the PN3B in February, 2014, which includes the bays, mangroves and coral reefs of Limonade, Caracol and Fort Liberté (see Figure 2 for Park boundaries). The protected area (specifically its management plan) will be supported by the National Protected Areas System financed by the Global Environment Facility (GEF) through the United Nations Development Program (UNDP). Studies to establish socio-economic and biological baselines will start before the end of 2014, with funding from previous IDB grant operations (HA-L1055 and HA-L1076) and IDB funds.

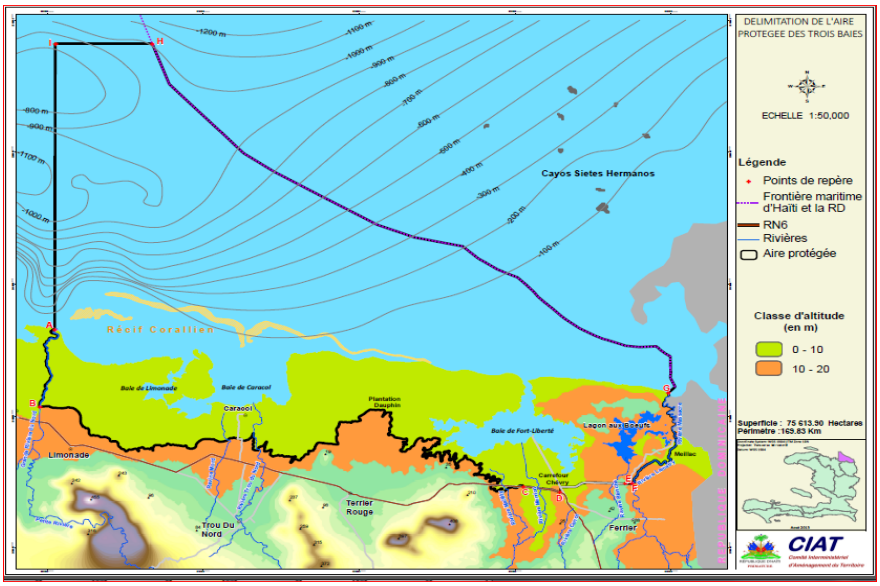

Figure 2 – Map indicating PN3B boundaries

2.15 **Hydrology and Water quality**. The primary source of surface water in the vicinity of the PIC is the Trou du Nord River, which begins in the mountainous region to the south and bisects the PIC before reaching its mouth, located in Caracol Bay. Its watershed extends approximately 110 km^2. Since it is an intermittent river, seasonal variations in precipitation greatly impact its flow.

2.16 The PIC is underlain by the Massacre Transboundary Aquifer (MTA), which spans approximately 2,280 km^2 and extends from Haiti's Northeast Department in the west to the DR's Dajabón Province in the east. Groundwater, obtained from dug wells and shallow boreholes is readily accessible and is the primary source of domestic and irrigation water for local residents. Simple pit latrines reportedly often fill up with water, which poses contamination risks to the MTA and local wells.

2.17 **Water Quality.** Water quality in Haiti is generally compromised and must be treated prior to consumption. Surface water samples collected from the Trou du Nord River present high levels of thermotolerant coliforms (TTC), a proxy for fecal contamination. Water quality results for groundwater samples collected from the PIC's primary productive well at a depth of 68 m vary by season. Samples collected and analyzed since February 2013 (the dry season) have indicated an absence of TTC and the presence of *E. Coli*. Analyses also

confirmed the absence of *cryptosporidium oocysts* and *giardia* cysts. Trace metals and radionuclides, which are commonly found in volcanic aquifers and groundwater derived from volcanic rocks, such as the Massif to the north of the PIC, were also detected.

2.18 **Natural Disasters**. Although the Northern Corridor has not been studied in detail, it is known that the PIC is located in an area exposed to natural hazards, such as earthquakes, tropical storms, riverine and area flooding, and droughts. Flood risk is a particular concern given the potential for seasonal flooding of the Trou du Nord River and the PIC's location within an alluvial flood plain. Moreover, climate change is expected to contribute to long-term sea level rise along the coast of Haiti. Preliminary results of HA-T1179 indicate that the PIC is susceptible to flooding as a result of intense rainfall saturating soils (i.e. leading to ponding and pooling across the site but not inundating the buildings since they were designed to stand 1 meter above ground), but not as a result of the Trou du Nord river exceeding its banks.

2.19 A Disaster Risk Assessment (DRA) was prepared for HA-L1081 and is in the process of being updated with the results from HA-T1179 and the study on Northern Haiti Risk and Urban Growth under the Emerging and Sustainable Cities Initiative (HA-T1185 and HA-T1186). A Disaster Risk Management Plan (DRMP) will be developed and implemented prior to first disbursement.

2.20 **Social and Cultural Context**. The current population of the Northern Department is 387,000.[10] The region is deficient in basic infrastructure, including roads and public services such as electricity, water supply, sanitation, solid waste management, education, healthcare, and policing. As a result, the region has been economically under developed and suffers from environmental degradation, including deforestation, contaminated waterways and depleted fish stocks.

2.21 The PIC is only one of a series of investments that the GoH is planning in the northern region. These include investments in roads, upgrades to the airport and port in Cap Haitian, a university and tourism. To help assess future impacts, the Cumulative Impacts Assessment, prepared under the second operation HA-L1076, created two development scenarios. The baseline scenario envisions slowing rates of urbanization, with overall urban population rising by 55% to 599,000 in 2030 (64% of residents in metropolitan Cap-Haïtien and 13% in the towns closest to the PIC). The high-growth scenario results in populations rising by 115% from 2009 levels, totaling 832,000 by 2030, particularly in the small towns around the PIC with low existing populations. As these projections and the sectoral resource demand calculations are not exact, they can only serve to convey the order of magnitude of future impacts. Regardless, both scenarios will significantly transform this largely rural, agricultural area. The on-going the Emerging and Sustainable Cities Initiative urban growth studies and the Cumulative Impact Assessment update will produce more information to refine these projections.

[10] This estimation is from a 2009 forecast that was based on the 2003 Census. This Census did not take into account the population influx generated by the industrial park at Ounaminthe (CODEVI, inaugurated in 2004). Local authorities (mayors and delegates) estimate the current population of the Northern Department above 500,000 inhabitants.

C. Alternative analysis

2.22 The alternative analysis for the site selection was conducted during the first operation (HA-L1055). Alternative analyses were also conducted for other PIC components, including the WWTP-P. Similarly, alternative analyses must be conducted for the industrial WWTP, and simplified analyses for the temporary hazardous waste storage site and for the location of other PIC components such as the truck and bus parking, garage and washing station, and the firefighter station, among others.

III. COMPLIANCE STATUS AND PROJECT STANDARDS

A. Environmental and Social Appraisal Process

3.1 **Due Diligence Review and Risk Assessment.** This is the fourth operation of the Productive Infrastructure Program. The Bank is supervising the Program operations by conducting quarterly site visits. In addition, ERM, an independent environmental and social consulting firm was retained as part of the approval of the most recent grant operation (HA-L1081) to assist the Bank in monitoring the EHS status and performance of the PIC (in particular compliance and status with applicable IDB requirements, and specifically any outstanding EHS related impacts, risks or liabilities which have not been properly mitigated or controlled). For the present grant operation and in accordance with Directive B.14 (Multiple Phase and Repeat Loans) of OP-703, an analysis of significant environmental liabilities remaining from previous phases, have been identified and documented. As mentioned in 1.6, there are no liabilities from previous grant operations apart from those described in the HA-L1076 Liabilities Remediation Plan. Nevertheless some conditions of previous operations needed to be extended including the presentation of an Emergency Response Plan and the Cumulative Impact Assessment.

3.2 Some key environmental, social, and health and safety management plans were reviewed as part of the due diligence process; for example, the updated Environmental and Social Management Plan (ESMP) of Estrella, the EHS organizational chart and budget for the PIC as well as the ESMP for the WWTP-P. A draft EHS Management System and corresponding management plans and procedures for operations have been developed under the HA-T1182 technical cooperation (TC) by a Consultant hired by the Bank and will be finalized by the PIC EHS Manager. As part of the implementation process of the EHS Management System some management plans were prioritized, in particular, the Stakeholder Engagement Plan, the Solid Waste Management, and Emergency Response Plan. The specific environmental assessments (EAs) and ESMPs for the construction of the different urban projects (see 2.3 – Component II) as well as for the construction of any additional PIC infrastructure will need to be submitted to the Bank for non-objection at least one month prior to the start of construction.

B. Consistency with IDB Policies and Directives

3.3 Because this grant operation has the potential to cause significant and potentially irreversible negative environmental and social impacts, particularly to CNH, the natural resource base, and local communities during operation of the PIC, it has been classified as Category A. The key risks and impacts associated with the proposed grant operation include: (i) potential uncontrolled development surrounding the PIC; (ii) direct and indirect ecological degradation of Natural Habitat (NH) and CNH; (iii) negative impacts on local livelihoods and cumulative impacts in the Northern Corridor.

3.4 This operation triggers most of the Directives in the IDB's Environment and Safeguards Compliance Policy (OP-703) as follows: B.1 (Bank Policies); B.2 (Country Laws and Regulations); B.3 (Screening and Classification); B.4 (Other Risk Factors); B.5 (Environmental Assessment Requirements); B.6 (Consultations); B.7 (Supervision and Compliance); B.8 (Transboundary Impacts); B.9 (Natural Habitats and Cultural Sites); B.10 (Hazardous Materials); B.11 (Pollution Prevention and Abatement); and B.14 (Multiple Phase and Repeat Loans). The Project also triggers the IDB's Disaster Risk Management

Policy (OP-704), Policy on Gender Equality in Development (OP-761), and Access to Information Policy (OP-102).

3.5 Table 2 summarizes how the Project meets and/or will meet the requirements of the IDB's Safeguard Policies and Directives.

Table 2 - Compliance Status Table[11]

Directive of OP-703	Aspect (if applicable)	Project Compliance Status
B.1. Bank Policies	OP-704: Disaster Risk Management	**Compliance requirements expected to be met.** The level of risk for the Project (and area of influence) was classified as moderate and a targeted DRA recommended. The DRA, developed for HA-L1076, will be updated and a DRMP will be developed and submitted to the IDB for review prior to its implementation.
	OP-710:Involuntary Resettlement	**Compliance requirements expected to be met** through the implementation of the Compensation and Livelihood Restoration Plan which is close to being finalized. The series of options for the 442 beneficiaries included: cash compensation for non-vulnerable populations, letter of credit to purchase land, national pension plan for those over 65 years old, and a housing option for 10 beneficiaries which has been delayed.
	OP-761: Gender Equality in Development	**Compliance requirements expected to be met**. In order to ensure equal access for women and men to jobs and career progression, SONAPI will organize sensitization sessions on jobs that provide equal opportunities for both men and women and will encourage tenants to conduct training sessions that would allow employees to gain skills necessary for professional and personal advancement.
B.2. Country laws and regulations	Haitian Legislative Decree of January 2006	**Compliance requirements expected to be met.** The Decree addresses issues related to ecosystem conservation, protected areas and protection of habitats, and pollution control. Specific articles describe the requirements for the treatment of industrial wastewater (Art. 122, 123, and 124) and solid waste (Art. 139). Compliance is expected through the satisfactory implementation of the EHS Management System and Rules and Regulations of the Park, as well as the tenant ESMPs, with SONAPI's capacity for enforcement. In addition, the EA for the WWTP-P was approved and disclosed in July 2014. The final version will now be submitted to the MoE for review and permitting.
	Haitian Law No. CL 01-2009-001 of March 2009	**Compliance requirements expected to be met.** In 2013 the UTE sought DINEPA[12]'s approval to operate the PIC's drinking water supply and approval was conditionally granted contingent upon the implementation of the recommended drinking water monitoring program. Following submission of the technical dossier of water quality monitoring results to DINEPA, the PIC's drinking water supply was certified as fit for human consumption in May 2014. The certification is contingent upon the successful implementation of the specific conditions annexed to the

[11] Specific conditions have been put in place to ensure Project compliance (see section V.)

[12] The National Water and Sanitation Directorate (DINEPA), was created under the law of March 2009, which establishes the legal framework for the regulation of the drinking water and sanitation sector. DINEPA's roles and responsibilities are described in Art. 6 of this Act and include, but are not limited to, the norms and regulations pertaining to drinking water quality and sanitation, the criteria to be adhered to by drinking water and sanitation operators, and the establishment of measurable indicators and procedures for the sector, all of which are applicable to private and/or public entities responsible for the provision of drinking water and sanitation, such as the PIC.

Directive of OP-703	Aspect (if applicable)	Project Compliance Status
		Certificate. SONAPI, which is now in charge of the operation of the PIC's drinking water supply, is being supported by the Bank to bring in international expertise to successfully implement the conditions at this time. The hiring of an international water supply operator will help ensure compliance.
	Haitian Labor Code	**Compliance requirements expected to be met** through the satisfactory development of the Rules and Regulations of the Park, and tenant ESMPs, with the capacity for enforcement as well as the monitoring by Better Work Haiti (BWH) for the garment manufacturing tenants as well as by SONAPI. Compliance with national labor law and core labor standards is monitored by BWH as part of the United States Haitian Hemispheric Opportunity through Partnership Encouragement Act (HOPE II) legislation. The seventh and eight BWH compliance reports (October[13] 2013 and April[14] 2014, respectively) have reported that the main tenant at the PIC, S&H Global, is not in compliance with certain articles of the labor code, specifically (i) compensation (premium pay); (ii) occupational safety and health (emergency preparedness, health services and first aid, welfare facilities, working environment and worker protection); and (iii) working time (leave). As part of the Rules and Regulations to be drafted by SONAPI, specific labor requirements will be included and SONAPI will have the right to audit the tenants up to 3 times per year. The PIC EHS Manager has been hired and will also verify S&H Global's compliance with occupational health and safety practices. The GoH issued a notice on 14 October 2013 stating that "*The price per piece, dozen, gross and meter can under no circumstance be considered as a minimum wage*." Following that notice on minimum wage Better Work Haiti issued a note[15] in April 2014 on the way they reported on compliance.
	Transportation (Art. 466, 91: Haitian Labor Code)	**Compliance requirements met.** The Haitian law requires that transport be provided to workers free of charge in non-urban industrial area. The existing transportation program is currently adequate. With the fast growing pace of the number of PIC workers, a long term strategy which addresses sustainable costs, multimodal transportation options, private management of the transportation system, and the organization of services for 2015 and beyond is currently being developed and it will be critical that funds are available to finance this future transportation plan.

[13] http://betterwork.org/global/?p=3690.

[14] http://betterwork.org/global/?p=4002

[15] "*Better Work is no longer reporting this information in summary fashion as a compliance point on compensation. The Government of Haiti issued a notice on 14 October 2013 stating that "The price per piece, dozen, gross and meter can under no circumstance be considered as a minimum wage." Under these circumstances Better Work Haiti was obliged not to report compliance with the production wage as compliance with "a minimum wage"*." See http://betterwork.org/global/?p=4002 for the full note.

Directive of OP-703	Aspect (if applicable)	Project Compliance Status
	Food Service (Art. 462: Haitian Labor Code)	**Compliance requirements expected to be met** through training opportunities for the cooks, the design and construction of new kitchen facilities to the Bank's satisfaction and the expansion of on-site food preparation and delivery.
	Maternity leave (Law 7, Chapter VII sections 321-322 and 330)	**Compliance requirements expected to be met**. Haitian Labor codes Law 7, Chapter VII sections 321-322 and 330 stipulates that pregnant women are to receive 12 weeks paid leave, 6 weeks prior to the pregnancy and 6 weeks after birth.[16] Pregnant women are also to receive two 30 min breaks throughout the workday prior to pregnancy and two breaks after pregnancy for breastfeeding. To ensure compliance, as part of the rules and regulations of the PIC, SONAPI will audit tenants (including the requirements for pregnant employees and maternity leave).
	Adequate sanitary facilities (Haitian Labor Code Law 8 Chapter V section 439 and 473)	**Compliance requirements expected to be met** through the construction of additional sanitary facilities in the cafeteria and assurances by the SONAPI that the facilities meet the standards of the Haitian Code of Labor.
	Contribution to health insurance and pension programs	**Compliance requirements expected to be met**. To ensure compliance, as part of the Rules and Regulations of the PIC, SONAPI will include specific documentation requirements proving compliance with the Haitian regulation. Employers are required to contribute to national health insurance and pension schemes implemented by OFATMA and the National Office for Old Age (ONA), which fall under the Ministry of Social Affairs and Labor.
B.4. Other Risk Factors	Environmental Governance Capacity	**Compliance requirements expected to be met**. To address the low capacity of SONAPI and absence of adequate PIC Management Plans for operation, SONAPI will put in place an EHS management team. An EHS Management System is being developed of which key elements should start implementation before the end of the year. UTE is working with a external firm (BETA) to help them with the supervision of the construction including EHS aspects.
B.5. EA Requirements	Environmental Baseline	**Compliance requirements expected to be met.** The contracts for the biological and socio-ecological baselines for the PN3B will be signed.
	ESMP	**Compliance requirements expected to be met through the following:** For all previous operations the ESMPs for construction have been prepared. The UTE will present a construction ESMP for this operation. The UTE will present to the Bank EAs and ESMPs for the construction of the urban projects (see

[16] The responsibility for paid leave is shared by OFATMA (Office d'Assurance Accidents du Travail, Maladie et Maternité) who are to provide payment for 6 weeks of the leave and the remaining 6 weeks is to be paid by the company.

Directive of OP-703	Aspect (if applicable)	Project Compliance Status
		component II). The grievance mechanism procedures have been prepared and will be reviewed by SONAPI. The ESMP for operation of the WWTP-P has been approved by the Bank and will be implemented. A draft EHS Management System for operation has been prepared and the tenants will prepare their ESMPs.
	Indirect Impacts	**Compliance requirements will be met. S**ignificant indirect impacts have not yet been experienced. Studies under the Emerging and Sustainable Cities TCs (HA-T1185 and HA-T1186) looking at specific land-use and development plans for nearby towns are ongoing with the first result available in October 2014. An updated Cumulative Impact Assessment is been developed and is expected to be finalized before the end of the year.
B.6 Consultation		**Compliance requirements expected to be met** through the implementation of the Stakeholder Engagement Plan and Feedback Mechanism.
B.7. Supervision and Compliance		**Compliance requirements expected to be met**. Construction activities supervised by an independent Supervision Firm. The UTE will submit monthly and semi–annual compliance reports for construction. The SONAPI EHS Manager and other team members have been hired and the structure of the EHS Management team presented. The process to hire a water Manager and water supply operator is underway. SONAPI will submit monthly compliance reports and certificates for operations as well as semi-annual compliance reports.
B.8. Transboundary Impacts	Transboundary Aquifer	**Compliance requirements met**. No transboundary impacts have been identified to date. Long term transboundary impacts (once the PIC is fully operational) could occur; the TC on Water Availability, Quality and Integrated Water Resources Management in Northern Haiti (HA-T1179) and the biological baseline will help assess and monitor the risks of any impacts occurring. Based on that assessment, if necessary, mitigation measures will be implemented in accordance with Directive B.8.
B.9 Natural Habitats and Cultural Sites	Significant conversion of Critical Natural Habitat or Natural Habitat	**Compliance requirements expected to be met.** Chance find procedures have been included in the construction ESMP. Specific funds have been allocated to help with the funding of the PN3B as part of this grant operation (see component II) as well as in previous grant operations. Required analyses and key mitigation and monitoring measures must be implemented in a timely manner to avoid conversion or degradation of CNH and to minimize impacts on NH.
B.10. Hazardous Materials		**Compliance is expected to be met** through the development of a Hazardous Waste Management Plan (included in the Waste Management Plan).
B.11. Pollution Prevention and Abatement	Wastewater and waste	**A temporary exception to OP-703 related to Directive B.11 was requested and approved by the IDB Board of Executive Directors** during the previous grant operation (HA-L1081) and was accompanied by a strategy to minimize risks and where possible mitigate any effects.

Directive of OP-703	Aspect (if applicable)	Project Compliance Status
		Currently wastewater is not being discharged to the environment and Directive B.11 as it pertains to wastewater emissions does not apply, however discharge to the environment is anticipated in 2015 at which time the WWTP-P is expected to comply with Directive B.11. Responsibilities for waste management at the temporary facility and the PIC will be defined. Waste management plans and procedures will be implemented.
B.12 Project Under construction		**Compliance requirement met** since the Bank has relevant requirements and action plans in place to ensure compliance with OP-703. These include the HA-L1076 Liabilities Remediation Plan as well as specific requirements set forth in section V of this ESMR.
B.14. Multiple Phase and Repeat Loans		**Compliance requirements expected to be met** since there are no liabilities outstanding except for thos**e** under HA-L1076. Nevertheless some conditions of previous operations needed to be extended including the presentation of an Emergency Response Plan and the updated Cumulative Impact Assessment.

IV. ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS

4.1 Since the first grant operation for the PIC (HA-L1055) the Bank has developed a number of environmental, social, and health and safety management strategies, plans and procedures with the borrower to address the potential direct impacts of the Program such as contamination of the Trou du Nord River from construction, as well as potential indirect impacts such as any uncontrolled development surrounding the PIC, ecological degradation of CNH and the potential degradation of local water quality and quantity.

4.2 To a large extent, prevention and mitigation measures for the construction activities have been implemented effectively and it is expected that adequate measures will continue to be implemented for this grant operation. However, during the operational phase and in particular as the operations have increased, there have been delays in fully and adequately implementing the mitigation measures developed for HA-L1055, HA-L1076, and HA-L1081, which have increased some environmental and social risks. These delays include: construction and operation of the permanent WWTP-P, establishment of an EHS Management System, hiring an EHS Manager, establishment of a grievance mechanism, and establishment of a solid waste disposal site. Nonetheless, good progress has been made to advance each of these as described below.

4.3 Since the beginning of 2014, with the responsibility for PIC operations passing to SONAPI, a better framework for addressing the operational impacts and risks has been put in place.[17] Areas that still need to be enhanced are (i) the capacity of the GoH, SONAPI and the Bank[18] to plan for and implement such a complex project; and (ii) the institutional mechanisms and procedures needed to ensure the regions' sustainable and planned development.

A. Key Impacts from Construction and Control Measures

4.4 Overall impacts from construction in this grant operation will be of smaller magnitude than during the initial phases of construction of the PIC. Currently construction is well managed by the construction firm Estrella and is expected to remain the same with the future company that will be constructing the facilities under this grant operation. Management of any impacts is also expected to improve as a result of the UTE's and the IDB's combined experience supervising this Program.

Environmental

4.5 **Surface and Groundwater**. Inadequate sanitation facilities, as well as the improper handling, management and disposal of domestic wastewater could exacerbate pollution of surface/groundwater and/or soils. Minor to moderate contamination may occur from the improper management, storage or disposal of used oils, hydraulic fluids and empty potentially toxic containers. To date there have been no significant incidents (i.e. serious spills).

[17] Given that the UTE is typically focused on construction.

[18] Specifically the limited technical expertise and tight timeline for project preparation have, at times, led to inadequate decision-making.

4.6 **Solid Waste**. The improper handling, transport and disposal of solid and hazardous waste may contaminate surface and groundwater if the workers' food system as well as the construction system is not properly managed. Historical non-compliances concerning the improper management of hazardous waste were swiftly corrected during previous grant operations.

Social

4.7 The social impacts and risks from this next phase of construction at the PIC are similar to those associated with the previous grant operations. The principal impacts and risks are related to poorly managed population influx (which could lead to social unrest) and uncontrolled development outside the PIC and its surroundings.

Occupational Safety and Health (OSH)

4.8 Similar to the previous grant operations, the OSH impacts and risks are typical of medium to large scale construction activities. Lack of Personal Protective Equipment (PPE), particularly for workers working at heights, vehicles surpassing the on-site speed limit, and the lack of demarcated safety areas are still observed. No fatalities or serious injuries occurred in the previous grant operations and mostly minor injuries and cuts were recorded by sub-contractors.

Environmental, Social and OSH Construction Control Measures

4.9 Since the first grant operation Estrella has made consistent progress in EHS management and last year it has added additional staff to its EHS team. Estrella will continue to implement its ESMP, including solid waste and hazardous waste management, erosion and effluents control. For this grant operation (HA-L1091) it is expected that the future construction firm will have similar ESH management practices. The firm will be required to present an ESMP to the IDB and expected to implement it adequately.

4.10 On the social side, the issues mentioned in section 4.7 have been successfully addressed since the first grant operation, mainly through strategies implemented by the Contractor at the request of the Bank: Local Employment Plan to ensure preferential hiring of locals from Cap Haitian and the towns surrounding the PIC; hiring only through kiosks installed in the surrounding cities to avoid hiring at the gate;[19] provision of free transportation to the workers; and food provision inside the PIC.[20]

4.11 In relation to health and safety, Estrella has shown continuous improvement throughout the different grant operations. Specific improvements have been made including wider use of PPE, more frequent and timely inspections of fire extinguishers and better implementation of EHS management procedures. As mentioned in section 4.9 the future construction firm is expected to have similar health and safety measures.

[19] As the number of construction jobs decreased the system has been modified and the kiosks are being used for operational jobs only.

[20] Estrella has its own canteen that provides food for its international staff. The remaining workers use the same food provision arrangements currently operating at the PIC: 24 local vendors are currently allowed to operate inside the PIC

4.12 Supervision of construction activities is performed by an independent Supervision Firm hired by the UTE. For the previous grant operations (HA-L1055 and HA-L1076) the supervision company was SNC-Lavalin. For HA-L1081, on June 4th, 2014 the UTE hired a new supervision firm, BETA Ingénieurs-Conseils (BETA). BETA provides monthly EHS supervision reports to the UTE.

B. Key Impacts from Operation and Control Measures

Water and Wastewater Impacts and Risks

4.13 **Water Supply**. The PIC relies on groundwater to meet its water supply demands. Although borehole pump tests indicate that there is sufficient water available for Phase 1 of the anchor tenant's activities, once all of the anticipated groundwater wells have been constructed and are operating, there may be a risk of localized impacts to the Massacre Aquifer and Trou du Nord River (e.g. a potential reduction to locally-sited wells and the River, particularly during the dry season). A single productive well serves two parallel distribution networks, which supply industrial and domestic water to tenants. Industrial water is designed to meet for the requirements of the anchor tenant for the textile industry, while domestic water is designed to meet international standards for drinking water.[21] While both supplies are fully functional, neither supply has achieved the intended standard resulting in potential health and financial risks. Bacteriological contamination has been detected in the water supply network, indicating contamination is occurring most often after the point of disinfection suggesting inadequate disinfection or contamination being introduced into the network, for example, through breaks in the pipes. Notwithstanding, samples from the main productive well also occasionally present with contamination. When this occurs, shock disinfection is undertaken.

4.14 The PIC's fire station was being constructed in the immediate vicinity (<11m) of the main productive well. This is not aligned with international best practice and threatens the PIC's water supply with potential contamination from hydrocarbons and other contaminants associated with the operation and storage of fire trucks and fire-fighting material. This is particularly critical while only one well is in operation.

4.15 **Wastewater**. The WWTP-P began receiving wastewater July 25, 2014 and the temporary systems are no longer operating, significantly reducing risks to the environment from inadequately treated effluent. Wastewater will be closely monitored during the filling and calibration phases, which may take up to one year, to ensure any wastewater discharged to the environment from the WWTP-P (expected in 2015) will comply with the discharge standards prescribed for the PIC.

4.16 The WWTP-P uses a biological system to treat domestic wastewater (characteristic of common households). SONAPI must ensure that any activities carried out by the tenants that could result in the production of wastewater with characteristics incompatible with domestic wastewater are planned for and adequate pre-treatment is put in place. Thus, if discharged into the WWTP-P, it could impact the WWTP-P's operational efficacy or damage its sensitive biological system.

[21] WHO Guidelines for drinking-water quality, 4th Ed. (2011).

Water and Wastewater Control Measures

4.17 **Water Supply**. A TC on Water Availability, Quality and Integrated Water Resources Management in Northern Haiti (HA-T1179) was developed primarily to quantitatively assess current and future water availability and analyze water quality and stakeholder demand to inform an Integrated Water Resources Management (IWRM) Plan for the Trou du Nord watershed. Preliminary results were presented to the IDB project team and subsequently shared with SONAPI and the UTE in 2014.

4.18 The process to hire a water supply operator and water Manager is underway. The selected firm and/or consultants must be on-site as quickly as possible. A full diagnostic of the industrial and drinking water systems and the implementation of any recommended solutions including staffing requirements in addition to an operational strategy and Water Safety Plan (WSP) are expected by the end of Q1 2015. The diagnostic is key to, among other things, fully understanding the source of contamination and appropriate mitigation measures for potable water.

4.19 A wellhead protection plan must also be developed and the well site modified to ensure the main well is protected from potential sources of contamination (such as the fire station); this is expected to be done as part of the water supply operator's activities. Specifically the location of the fire station will be revisited to ensure adherence to international best practice.

4.20 The second productive well should be constructed as soon as possible to ensure a fully functioning back-up water supply is available at all times.

4.21 **Wastewater**. To avoid impacting operational efficacy of the WWTP-P, wastewater that does not meet discharge protocol standards (e.g. the characteristics of domestic wastewater) must either be: (i) discharged and treated in an industrial WWTP, or (ii) pre-treated to meet the characteristics of domestic wastewater such that it can be further treated in the existing WWTP-P prior to any discharge to the environment.

4.22 An industrial WWTP is envisaged to coincide with dying activities that will be undertaken in the future by S&H Global. The procurement, design and construction of that plant are expected to take a minimum of two years. As a result, any industrial wastewater produced during that period, must be pre-treated. Such is the case for wastewater that will be produced by S&H Global's laundry/washing facility, which uses chemicals that cannot be easily assimilated directly by the domestic WWTP-P. S&H Global's washing activities therefore cannot begin until analyses of wastewater resulting from the washing process have been undertaken and a pre-treatment facility has been designed and built, which may take several months.

4.23 The laboratory associated with the WWTP-P is still under construction. Nonetheless adequate information was provided to make a preliminary assessment of the facility. Specifically certain reagents to be used in the laboratory contain small volumes of hazardous materials, such as mercury. As no hazardous waste disposal sites are available in Haiti, this problem will need to be analyzed in detail by SONAPI and the Operator. Conceivably, manufacturers may be able to assist with the recovery and/or disposal of such products. The Operator has committed to presenting a hazardous waste storage plan to assist in the interim as part of the laboratory procedures that will be included in the ESMP that is expected to be approved and implemented prior to Board.

4.24 A review of all electrical equipment and connections in the laboratory will be undertaken by a qualified electrician to ensure national and/or international codes are met, as applicable, in addition to the provision of a standby power supply. Once the laboratory is fully operational, an informal audit will be undertaken by independent consultants.

Waste Impacts/Risks and Control Measures

4.25 **Solid Waste**. The Northeast, like all of Haiti, does not possess a facility for the final disposal of solid waste. To overcome this limitation, the PIC has operated a small temporary solid waste facility and separation site situated approximately 3 km west of the PIC. To date it has been managed by Estrella and will be managed by SONAPI in the future, while awaiting the definitive landfill included as part of the HA-L1076 grant operation which is currently in the pre-design phase.[22] Initially the temporary facility received only construction wastes, but once the PIC became operational in 2012, and as the definitive landfill had not yet been constructed, it became the only option for the discharge of solid waste produced by the tenants. In 2013 the UTE hired a company (GOLSA) to manage operational waste generated at the PIC. Nevertheless, deficient performance and high costs resulted in the anchor tenant refusing to pay and suspending their service. Waste is now accumulating next to S&H Global's facilities which present risks of contamination and attraction of pests. At the same time, the operation of the temporary facility landfill has deteriorated and is now in need of corrective actions.

4.26 **Solid Waste Management**. For the long-term management of domestic waste associated with the PIC the Government has proposed building a regional waste disposal facility and recycling center located in Limonade,[23] in partnership with the French Development Agency (AFD) for co-financing (an additional US$2-3 million). Beyond serving the PIC, it is envisaged that this facility will help address the lack of solid waste management for the population in the Northern Corridor. Additional studies will be performed to assess the feasibility of including hazardous waste in the Limonade facility. Meanwhile, domestic wastes will continue to be disposed of in the temporary facility, for which SONAPI will implement corrective measures defined by the PIC EHS Manager to conform to acceptable standards. In addition, a facility will be built at the PIC for the temporary storage of hazardous waste until there is an assessment of the capacity of the GoH to operate a hazardous waste facility.

Social, Labor and Occupational Health and Safety Impacts/Risks and Control Measures

4.27 **Worker Transportation**. An interim transportation system organized by SONAPI was initiated in June 2013, involving the Haitian Union of Transporters, which provided the drivers, as well as the State Transportation Company, which provided buses for the workers' daily commutes. The system was inefficient and presented health and safety concerns due to the lack of operational planning and consistent management, lack of control over the physical condition of the buses, and unsafe boarding and driving practices. Following grant operation HA-L1081, and with the objective of complying with local laws, SONAPI acquired 22 new buses and improved the boarding system. In addition, the buses currently operate two morning and two afternoon shifts with four designated bus stops in different areas. All these elements have led to a great reduction in wait time for the buses,

[22] The temporary site could potentially be expanded until a permanent, long-term facility is designed and constructed.
[23] Although a detailed justification of site selection and choice of alternatives is still outstanding.

increased satisfaction amongst passengers, and greater safety in the transportation system as a whole. Human and financial resources to develop and implement the system in the medium (approximately 4,000 workers) and long term (around 20,000 workers) are expected to be secured, including the potential need for additional buses.

4.28 **Worker Transportation Control Measures**. Having an adequate transportation system in place is an important mitigation measure in order to avoid uncontrolled development outside of the PIC. It is also important to develop a system for the medium and long-term demands of the PIC. The Bank has hired an expert to provide recommendations to enhance the operational planning of the system, advise on the design of a bus depot (i.e. bus washing, parking, maintenance) and private bus operator, and cater to the expansion of the PIC for the next few years, when the number of workers is estimated to reach 10,000. Also, the Bank is developing a long-term approach that involves cooperation with other activities through: (i) the Emerging and Sustainable Cities Initiative, meant to develop a long-term Transportation Plan that focuses on the four cities closest to the PIC; (ii) a consultancy to develop a Business Plan for a multimodal business park (terminal) to serve the North/Northeast Region and the PIC; and (iii) a TC (HA-1183) to address urban development of the buffer zone adjacent to the PIC. Most of those studies are expected to be delivered before the end of the year. Human and financial resources are expected to be secured through (i) SONAPI income from the tenants (that pay US$0.50 per passenger), (ii) possibility to hire drivers and buses via independent contractors, (iii) additional buses financed by the GoH, and (iv) privatizing the system in the long term.

4.29 **Food Provision for Workers**. To integrate the local community and small businesses into the economics of the PIC and to help avoid the concentration of food vendors outside the park's entrance, independent cooks sell food to the workers inside the park during breakfast and lunch hours. Food is currently prepared off-site and brought onsite by 24 independent cooks from the community during meal times. However, there is no quality control for food safety and hygiene standards. Twelve kitchens were built in early 2014 but site visits by the Bank and by independent consultants held in June 2014 identified that these kitchens do not fully comply with health and safety standards. Thus, the twelve kitchens are currently not operational. Shortcomings include (i) lack of potable water; (ii) lack of a number of critical requirements, including health and safety planning, ventilation, adequate storage and working space; and (iii) insufficient toilets in the eating areas. Given the need to scale-up to 30 kitchens as employment at the park continues to grow, it is essential that SONAPI develops a long term sustainability model for the food provision service, and a design for the kitchens that ensures that health, safety and hygiene expectations are met.

4.30 **Food Provision Control Measures**. The availability of affordable meal options, together with a series of incentives to keep employees on-site during meal times, is an important component of the influx management strategy and is likely to decrease incentives for informal food-service providers to gather outside of the PIC main gates. With the help of the Bank, SONAPI has hired an expert to train the current cooks in hygiene and health and safety,[24] and will also hire experts to provide cooking training. Modifications to the existing kitchens will be evaluated and a cost-effectiveness assessment will be performed. Similarly, the design of the new kitchens to be built under HA-L1081will be reviewed by a professional with experience in large scale meal delivery services in short periods of time

[24] The first hygiene and food safety training was already provided by the Bank in July 2014 as part of the components of the Social TC – HA-T1181.

(45 minutes, as required by the PIC). Also the food provision system in the long term will be developed to keep up with the rapid expansion of the PIC.

4.31 **Gender Equity**. There is a risk of gender-imbalance in the neighboring communities surrounding the PIC (by employing a significant amount of women of childbearing age while men are unemployed – approximately 75% of PIC workers are women) which may have unforeseen long-term social impacts. Currently, on-site childcare is not provided for the largely female workforce at the PIC. The lack of childcare (or the significant expense of alternative childcare offsite) can potentially create a barrier to more women joining the PIC workforce, and to women being able to pursue senior positions with increasing responsibility and can eventually push many women out of the workforce to save money as the primary caregiver for young children. Pregnant women and women that breastfeed are not provided adequate leave by the tenants under the Haitian Law (see Table 2 – Maternity Leave).

4.32 **Gender Equity Control Measures**. Several options for social support to the communities will be analyzed by the IDB as part of the HA-T1181 TC, including gender specific issues (i.e. maternity leave, equal career advancement), the creation of a social fund for the PIC (involving tenants and government partnership) to fund social investments in the communities, such as childcare facilities for the women employed at the PIC, adult literacy, after school activities (given that S&H Global's hours of operation might extend to 6:30 pm daily to free employees on Saturdays), among others that will be identified and discussed within the PIC EHS Committee. Additionally as part of the Rules and Regulations of the PIC specific provision for gender equity will be included.

4.33 **Grievance Mechanism**. A Grievance Mechanism was developed by the UTE as part of the Stakeholder Engagement Plan. As management of the PIC was transferred to SONAPI, revised feedback (grievance) mechanism procedures (one for surrounding communities and one for the PIC workers) were developed as part of the EHS Management System. The internal and external feedback mechanism outlines procedures for accepting and addressing feedback and grievances based on international standards and best practices.[25] The revised procedures' ability to address labor requirements and grievances is strengthened through: (i) adequate employee participation; (ii) detailed dissemination of the mechanism information among employees and communities – telephone hotline number, office appointments, pamphlets, etc; (iii) a focal contact point who must record all complaints; (iv) evidence of a response delivered to complainants within an established timeframe; (v) evidence that employees have access to independent assistance regarding their rights and the grievance process if requested; and (vi) evidence of training on the system to all supervisors and employees (over a period of time), amongst others. The procedure is under review by the EHS Manager and a feedback mechanism plan will be finalized when SONAPI hires a feedback officer.

4.34 **Occupational Safety and Health (OSH)**. The OSH risks and impacts that may occur during operations are similar to those of large industrial facilities and are primarily associated with the operation of equipment and machinery, as well as those associated with the use and manipulation of potentially harmful materials, such as fuels, lubricants and solvents. During operations, these risks could also include an unsafe work environment,

[25] The World Bank's Approach to Grievance Redress in Projects and IFC's Good Practice Note: Addressing Grievances from Project-Affected Communities, IFC's Good Practice Handbook on Stakeholder Engagement, among others.

exposure to high levels of noise, dust and physical and chemical hazards. In addition, the type of tenant operations may lead to an increased risk of potential accidents, including fires and explosions.

4.35 **OSH Control Measures.** The framework of the health and safety management system was developed by a consultant firm (HSE International) hired by the Bank in 2013. This system will be customized to the PIC by the EHS Manager and the health and safety officer responsible for its implementation, both hired by SONAPI in August 2014, and who will monitor compliance with the health and safety management systems, plans and procedures. In addition, BWH also monitors compliance with international labor and health and safety requirements of the garment manufacturing factories, and the Bank continues to promote health and safety training to PIC workers, tenants and contractors though the Cahn Group. Finally, SONAPI will hire an expert in Emergency Preparedness and Response to review the existing systems both within the PIC tenants' facilities.

4.36 **Resettlement**. The new infrastructure that will be constructed inside the PIC will not involve any additional involuntary or economic displacement of affected people. Since the 250 ha site was acquired, a Compensation and Livelihoods Restoration Plan was prepared as part of the original operation (HA-L1055). There were 442 persons affected by the PIC's construction, of which to date only 10 are still pending final compensation.

4.37 The Land-for-Land component of the original Plan had to be abandoned due to conflicting interests of the stakeholders, which seriously delayed the implementation of the plan and ultimately led to the reconsideration of this component. A revised plan is currently in the final stages of being implemented by the UTE. This plan entails four options for the 442 affected persons impacted by the construction of the PIC. Those options are: (i) cash compensation for populations that are not considered vulnerable and not at risk of impoverishment from cash compensation; (ii) compensation under the national pension system (for those over age 65); (iii) an adaptable letter of credit, whereby the UTE purchased a lease-hold title for plots identified by affected farmers after reviewing the status of the land; and (iv) a housing option under the IDB Housing Program through the *Fonds d'Assistance Economique et Sociale* (FAES). The final cash compensation has been disbursed to 407 affected persons without issue. This final number of cash recipients includes payments made to affected persons based on various land-sharing arrangements (sharecroppers, land-owners, multiple land users, etc).

4.38 The compensation targeted toward the most vulnerable is underway and, in the case of the letter of credit, complete. The MEF approved the letter of credit in March 2014 with all 11 beneficiaries having gone to the bank with the assistance of the UTE to sign the necessary documentation for their land titles. A MOU between the UTE and the National Office for Old Age (ONA) has been signed which provides access to the nation pension system to the 14 elderly beneficiaries. Additionally, the IDB housing activities continue to face severe delays making it necessary to seek alternative options for the 10 beneficiaries of the housing option and to provide a gap compensation of one year.

Cumulative and Indirect Impacts/Risks and Control Measures

4.39 **Natural Resources and Biodiversity**. In relation to natural habitats, there is the potential for direct impacts on water quality in the Trou du Nord River, as well as indirect impacts from population influx driven by new developments associated with the PIC. There is a risk that the PIC will drive the significant conversion and degradation of CNH through direct,

indirect and cumulative impacts. Specifically, population influx could lead to (i) a loss of ecological services provided by mangroves, such as spawning grounds, ecotourism and protection against storm surges, resulting in a potential loss of livelihoods; (ii) significant depletion of fisheries through overfishing; and (iii) negative impacts on mangroves, coral reefs and beaches from the discharge of pollutants/solid waste.

4.40 **Natural Resources and Biodiversity Control Measures**. The mitigation plan established in previous grant operations for a total of USD$900,000 (US$ 300,000 in HA-L1055 and US$ 600,000 in HA-L1076) and the resources in HA-T1180 (US$180,000) are critical in providing support to the *Agence Nationale des Aires Protégées* (ANAP) and to support the establishment and functioning of the PN3B. In addition the present operation will provide US320,000 to facilitate the PN3B startup costs and management capacity. This funding is critical to implement the mitigation plan and to ensure long term sustainability for the protection measures for Caracol Bay. Specifically, (i) PN3B management capacity will need to be established including educational, monitoring and enforcement staff, before the further influx of population creates additional pressures on the natural resources of the area; and (ii) the alternative livelihoods activity must be prioritized as it has not yet been adjudicated. Unless funding is secured and activities implemented it cannot be guaranteed that the Project will be in compliance with B.9 (risk of significant conversion or degradation of CNH). The UTE must work with ANAP to support finalization of the required baseline studies and the development of sustainable alternative employment opportunities (the contracts for the socio-economic and biological baselines have been seriously delayed, but are expected to be signed respectively by Board approval and the end of the year).

4.41 Management and monitoring plans relating to water quality and biodiversity will be refined in accordance with the results of the biological baseline study. Of particular interest is the impact of the PIC on the water quality of sensitive ecosystems: mangroves, coral reefs, and sea grasses. Specifically, key mitigation and monitoring measures required are: (i) wastewater management systems within the PIC that ensure that effluent from the PIC does not exacerbate pressures on the habitats; (ii) a water quality and biodiversity monitoring system must be developed and implemented based on existing information and must be functioning during PIC operations to ensure that water quality remains within established standards; and (iii) the extended aquatic biodiversity baselines must be completed, building on the October 2013 rapid biodiversity baseline study, and the information acquired from this study used to adjust mitigation measures, water quality standards, and the approach to monitoring as necessary. It should be noted that the aquatic baseline and the water quality baseline (already partially undertaken) are complementary products. The latter is designed to ensure that: (i) the PIC complies with regulatory requirements, e.g., the IFC EHS General Guidelines; and (ii) potential contamination from the PIC to the surrounding environment is monitored. The former will then help to determine if the application of existing regulatory requirements is sufficient to maintain a healthy aquatic environment; and if not, develop complementary measures to be included in the ESMP to help ensure the sustainability of the aquatic environment. These two elements need to be addressed collectively through an integrated water quality monitoring program and the process of hiring a water manager to assist with this activity is now underway.

4.42 **Cumulative Impacts**. While the construction activities and operation of the PIC, combined with other initiatives financed by various donors, will contribute to the development of Haiti's Northern Region (Cap-Haïtien and Ouanaminthe Corridor), they may also lead to negative cumulative environmental and social impacts. Lack of adequate land-use planning,

zoning and enforcement, coupled with insufficient public infrastructure, may pose high associated risks for the PIC's social and environmental sustainability, including indirect and cumulative impacts and risks, such as: (i) population influx from outside the area, which could generate social tensions and overload public services; (ii) informal squatting around the PIC, in the case that housing and accommodations are insufficient to supply the demand from new workers; (iii) increased safety risks due to increased road traffic and accidents; (iv) unforeseen gender imbalances and shifts in gender roles in the local communities, created by a largely female workforce at the PIC; and (v) heightened security risks due to the population influx. Moreover, an increase in local population combined with a lack of wastewater infrastructure in Northern Haiti could contribute to the existing contaminant load of surface and groundwater resources.

4.43 **Cumulative Impacts Control Measures**. As part of the development of the Northern Regional Master Plan, a Cumulative Impact Assessment was finalized in 2012. There is an ongoing challenge in developing the institutional arrangements within the GoH to implement the recommendations of the Cumulative Impact Assessment for addressing negative cumulative impacts. The Bank is supporting CIAT, the key driver for implementing the Northern Regional Master Plan in the development of a Regional Planning Authority (*Autorité d'Aménagement du Nord/Nord-Est*—AANNE). A high-level workshop is planned for November 2014, focusing on (i) the CIAT Regional Planning Authority; (ii) an update on the Cumulative Impact Assessment; and (iii) a high level meeting to discuss the development of the PN3B.

4.44 Implementation of most of the initiatives described in the next sections (4.45 to 4.52) is uncertain and has only just begun; it is therefore critical that sufficient funds are allocated to implement the outcomes of these studies and assessments in a timely manner. In addition, the multiplicity of proposals, loans, grant operations and TCs will require close coordination among multiple teams and divisions within the Bank.

4.45 **Population influx**. Given that the main objective of the development in the North is to decentralize development from the South toward the North/Northeast, it is natural to expect an increase in population. This increase has been estimated in the Regional Master Plan developed by American Institute of Architects (AIA) and by CIAT. Although this may result in economic development it may also have negative effects, given that populations from the South may have educational and skills' advantages, thus hindering the capacity of the local population to access new jobs at the PIC and other business developments. Additionally, an uncontrolled population influx can put a strain on already scarce resources and public services, leading to the growth of slums, increase in security risks, and epidemiological issues

4.46 **Population Influx Control Measures**. A TC for "Mitigating the Social Impacts of the PIC" (HA-T1181) was approved in April 2013 and was reformulated to seek to support two of the key requirements of the Project, which are fundamental to mitigating the risks of uncontrolled urban development outside the PIC: (i) mitigating social impacts through gender equitable private sector development; and (ii) active stakeholder engagement. Other Bank supported activities include the Emerging and Sustainable Cities Initiative under way covering four studies: (i) assessment of the region's vulnerability to risks and natural hazards, (ii) urban growth study, (iii) sustainable mobility study, and (iv) living conditions survey and impact study of the PIC. Several other TCs are also underway, including: (i) Water Availability, Quality and Integrated Water Resources Management in Northern Haiti (HA-T1179); (ii) Institutional Strengthening to Increase the Technical Capacity of the GoH

(HA-T1182); (iii) Mitigating the Environmental Impacts of the PIC in the Caracol Bay (HA-T1180); and (iv) Urban Growth Management in the Vicinity of the Caracol Industrial Park (HA-T1083). Among several programs being studied, it will be necessary to address the potential education and skills gaps and disadvantages that local communities may face in relation to more educated people that may move from other regions and compete for jobs.

4.47 **Housing and squatting**. To date the management plans developed for the PIC have been successful in controlling squatting around the PIC except for a small market at the main gate. However, as the job market increases and the local pool of potential workers becomes insufficient to fulfill the demand, the need for housing may quickly accelerate. Without an adequate market of affordable low income houses uncontrolled development may result.

4.48 **Housing and squatting control measures**. The Bank is financing urban planning solutions, including: (i) housing, which is currently delayed (approximately 900 units) some within close range, e.g., 3 km from the PIC, including 242 units in Terrier-Rouge, 474 units in Cahesse (2 km from the PIC), and 184 units in Ouanaminthe; (ii) Urban Development Plans, with services to strengthen the urban growth of towns closest to the PIC, particularly Trou du Nord; and (iii) zoning and Communal Development Plans, which are designed to assist the private sector with investing in housing development and the local population with building its own houses. Whereas this is clearly insufficient, other mechanisms will be discussed with the AANNE as part of the implementation of the Regional Master Plan.

4.49 **Traffic safety**. Population increase coupled with an increase in production in the PIC will generate an increase in traffic that without the proper mitigation will exacerbate the already existing conflicts between pedestrians and vehicles.

4.50 **Traffic safety control measures**. SONAPI has hired a transportation coordinator who is assessing what improvements can be made to the transportation system for the PIC workers (increased number of buses, more efficient itineraries). In addition, the Bank's Transport Division is working to improve the transport network surrounding the PIC. Improvements to the road to Caracol include the identification of critical areas, the creation of bike lanes, and overall improved surfaces. As the Bank's work in the Emerging Cities Initiative evolves and the Regional Master Plan starts to be implemented, a hierarchy of transportation routes will be developed and implemented, thus reducing the current risks (as no hierarchy currently exists, and all types of traffic compete for space on the same roads). Specifically for the PIC a workers transport procedure is developed as part of the EHS Management System.

4.51 **Security Risks**. The expected growth of the Northern Corridor and the influx of people have the potential to increase security risks for the inhabitants of the region as well as PIC workers. Without a carefully coordinated regional strategy between donors, local and national government entities, healthcare workers, and law enforcement that includes monitoring crime rates, traffic accidents, cost of living, epidemiological data, and population growth, the security of the inhabitants of the region is tenuous.

4.52 **Security Risks Control Measures**. The Bank has put in place studies to monitor some of issues mentioned above and is working in close collaboration with CIAT, although a regional strategy has yet to be developed. At the level of the PIC increased security forces have been hired to mitigate potential risks.

Park Management and EHS Management

4.53 **SONAPI Capacity and PIC Management**. Given that, as of May 2014, SONAPI is responsible for managing the operation of the Park, if SONAPI is not adequately structured, staffed and funded, in particular in relation to EHS aspects, there are risks that the operations at the PIC could negatively impact water quality and availability, wastewater, solid waste management, and biodiversity. Similarly, the lack of capacity to manage the PIC could also exacerbate social impacts and risks that are incremental to the impacts and risks from previous operations, in particular (i) labor issues at the PIC; (ii) the risk of social exclusion for surrounding communities due to a perception of being unable to benefit from the recent investments in the area; and (iii) social unrest due to the inability to address workers' and communities' grievances without a functioning grievance mechanisms.

4.54 In January 2014 the contract with the management firm HALOSA to perform as PIC Manager was cancelled due to non-performance. Of particular relevance was the failure to deliver EHS management plans, specifically: emergency response, water supply, solid waste management, pest management and community engagement. Upon cancellation of the contract, the UTE assumed the role of PIC and EHS Manager, assuming responsibility for the existing ESMPs and solid waste and water and wastewater action plans developed by the Bank and by the anchor tenant (e.g., in the case of emergency response). In May 2014, SONAPI assumed the responsibility for PIC operations, despite a limited capacity, exacerbated by the delayed implementation of the SONAPI institutional strengthening component of HA-L1076. In September 2014 SONAPI confirmed the appointment of a permanent Manager for the PIC which should help with the management of the PIC.

4.55 **Tenant Agreements, EHS Requirements and Rules and Regulations**. Under the terms of each Grant Agreement, the GoH is required to meet specific EHS requirements consistent with the Bank safeguard policies and must ensure compliance by its executing agencies and all other relevant parties, including tenants. These EHS requirements have been agreed upon with SONAPI and have been included in the tenant agreements that have been signed (except with the first two tenants, S&H Global and Peintures Caraïbes, which include instead a requirement to comply with all applicable laws, including the labor code, all environmental laws and SONAPI's Rules and Regulations for the PIC). Therefore, delays in developing adequate Rules and Regulations for the PIC impact the ability of the EHS Manager to adequately enforce EHS management practices, designed to control potential EHS risks and impacts.

4.56 **EHS Management**. Adequate EHS capacity of SONAPI is vital to ensure the PIC's future sustainability and to avoid reputational risks that could arise for the Bank if the PIC operates without an adequate EHS framework once the last Bank grant operation is fully executed. Given the delays in appointing the PIC and EHS Manager, the PIC continues to operate without the adequate water and wastewater, solid waste management, pest control, and emergency response management plans, among others.

4.57 **Water and wastewater management**. Despite SONAPI's lack of technical capacity, especially in relation to water and wastewater management, tremendous strides are being taken to address this problem moving forward, including the commitment to retain a global water supply operator and internationally qualified water Manager, the results of which are expected to be experienced during this new operation. However, until then, limited institutional capacity remains the most significant risk to water and wastewater management.

4.58 **Water Resources Management**. Water resources management has been a longstanding problem at the PIC. As for other issues at the PIC, owing to a lack of local technical capacity, the IDB has been the main point of contact for water resources management. However, this level of support cannot be sustained long-term and the PIC requires a full-time on-site water manager (see 4.14).

4.59 **Water quality monitoring program**. Because of a lack of technical capacity, a Water Quality Monitoring Program was never fully implemented. The Water Quality Monitoring Program is intrinsically linked to water resources management hence without adequate management, it has suffered, for example, with occasional changes to the timing of monitoring events and the lack of consistency between sampling events has inadvertently decreased the reliability of results.

Control Measures for Park Operations and EHS Management

4.60 **SONAPI's Capacity**. Enhancing SONAPI's capacity for managing the PIC is fundamental to mitigate potential impacts from PIC operations. This grant operation includes a specific component for capacity building (Component III, US$ 1 million), designed to contribute to the institutional organization of SONAPI in addition to its operational, financial and human resources to respond to the EHS requirements of a growing and expanding PIC. This component must focus on ensuring adequate EHS management and the PIC's long-term sustainability and development. The Grant Agreement for HA-L1081 will be amended to allow SONAPI to have access to existing funds allocated for the PIC operation and management activities and SONAPI will be responsible for complying with any and all of the related requirements of the Bank under that Grant Agreement.

4.61 **PIC Management, Rules and Regulations**. SONAPI and the UTE are currently in the process of signing a MOU that spells out the different roles and responsibilities for the PIC, including the responsibilities to comply with EHS conditions established under the different Grant Agreements. SONAPI has already submitted a proposed organizational chart for PIC management as well as the proposed organizational chart and budget for EHS management to the Bank.

4.62 One important requirement for the PIC Manager is the development of the PIC Rules and Regulations. The Rules and Regulations will include provisions on EHS, in particular the EHS Annex developed by the Bank and included in the contracts between SONAPI and the new tenants (with the exception of S&H Global and Peintures Caraïbes). Although delayed from previous operation HA-L1076 (Subcomponent 2.1 of HA-L1076) approved in 2012, the Rules and Regulations will finally be addressed through the hiring of a Consultant to support SONAPI with their development.

4.63 **EHS Management**. To address overall shortcomings in EHS management of the PIC, the Bank contracted a consulting firm to help with the development of an EHS Management System for the PIC operations; the system documents are expected to be finalized by March 2015. After an initial delay, in July 2014 SONAPI hired the n EHS Manager for the PIC, replacing the Interim EHS Manager hired in 2013 and whose contract ended in June 2014, thus fulfilling an important Bank requirement that had been delayed since operation HA-L1076. The EHS Manager is responsible, among others, for: (i) reviewing and approving the Park Manager's management plans and procedures with respect to EHS aspects; (ii) supervising the Park Manager's operations with respect to EHS aspects; (iii) directly or indirectly (through subcontractors) monitoring water supply and water and wastewater

quality; (iv) verifying that tenants comply with the EHS plans and procedures; and (v) on behalf of SONAPI reporting to the Bank fulfilling any Bank requirements with respect to EHS aspects. The EHS Manager submitted an organizational structure for the EHS team of the PIC, within the SONAPI overall structure, and the proposed initial operational budget for the first year of implementation of EHS activities. Some positions of the EHS management team still need to be filled. The EHS Manager is also working to customize the EHS Management System, plans and procedures developed by the Bank to the specific characteristics of operations at the PIC.

4.64 **Water and wastewater management**. Effective water and wastewater management has been hampered by ongoing limitations in technical capacity. Increased technical capacity and clear accountability would facilitate the achievement of compliance and the resolution of all of the operation's outstanding issues. The full-time presence of a wastewater operator, and the diversion of all wastewater to the WWTP-P are having a noticeably, positive impact. The presence of a full-time water operator and water manager is expected to bring similar results and must be prioritized by SONAPI and the IDB.

4.65 **Water Resources Management**. In conjunction with HA-T1179 and in addition to the monitoring and mitigation measures proposed in relation to Directive B.9, the operation must develop an integrated water resources management strategy. Additional data collection activities and studies will be required to respond fully to the PIC's needs and to address regional impacts. These include, but are not limited to, installation of at least one meteorological station and two stream gauges; a comprehensive hydrogeological assessment at local and regional scales (including predictive models to assess hydrogeological impacts at full build-out); an integrated water quality monitoring program (to integrate the monitoring of potential impacts on the aquatic environment with existing environmental monitoring plans); and a water quality model to assess assimilation and attenuation of nutrients and contaminants in surface and groundwater. US$500,000 were allocated to fund similar studies in HA-L1076.

4.66 **Water and Wastewater Monitoring and Supervision**. The existing water quality monitoring contract will terminate in early September. The IDB will support SONAPI by appointing an interim subcontractor to conduct water quality monitoring activities for a period of six months after which the future water supply operator is expected to assume responsibility for this activity.

4.67 The UTE has indicated they will retain fiscal control of the wastewater Operator's contract, while SONAPI will take over day-to-day management. Although this has been clarified in theory, it must be implemented in practice. In addition, any decisions that could impact day-to-day operations of the PIC e.g. industrial water pre-treatment, location of specific facilities such as the fire station, etc. must be resolved through the active participation of both parties.

4.68 Similar to previous operations, the requirement to retain a water manager as quickly as possible persists. The primary role of the water manager will be the coordination of all water and wastewater activities in addition to providing technical and decision-making support as needed and finally troubleshooting problems as required, including the need to retain external expertise as applicable. A key task will be the diagnostic of water resources and the development of a site-wide Water Safety Plan (WSP).

C. Positive Impacts

4.69 The Project will contribute to the socioeconomic development of Northern Haiti, provided that there is adequate implementation of environmental and social requirements. It will likely generate increased economic activity and create paying jobs by providing the basic infrastructure, industrial facilities, management support and complementary investments required for the expansion and operation of the PIC, with benefits spilling over into the surrounding population of the North and Northeast Departments. One positive impact has been the access to electricity for some communities surrounding the PIC. Hundreds of households and public buildings in Caracol are already receiving electricity generated by the PIC's power plant and provision is expected to be expanded to the towns of Trou du Nord and Limonade.

4.70 One success of the PIC is the declaration of the PN3B. Budget has been allocated under HA-L1055 and HA-L1076 for park management and TC HA-T1180. The Projects will pave the way for a detailed management plan for the protected area and ecological and social economic baseline studies. An alternative livelihoods program will include environmental awareness campaigns, develop business plans and value chain analyses for the charcoal, fishing, salt, recycled plastic and tourism sectors and recruit a manager for the new national park. The National Park steering committee, hosted by ANAP, is evaluating a co-management framework to facilitate financial sustainability, technical expertise and capacity building.

D. Other Risks

4.71 **Natural Disasters**. Like much of coastal Haiti, the PIC is located in an area exposed to natural hazards and has the potential to exacerbate risks to human life, property and the environment, particularly if these risks are not adequately assessed and managed. A DRA was prepared for HA-L1081 and is in the process of being updated based on new information regarding potential flood risks through the development of a flood simulation model (HA-T1179). Results from the sustainable cities initiative studies have also been incorporated and a DRMP will be developed and implemented in early 2015. Specific measures to mitigate the some disaster risks have been implemented such as the construction of higher buildings (flooding) and following construction standards to resist earthquakes and hurricanes.

4.72 **Reputational Risks**. The Project poses high reputational risk to the Bank if environmental and social safeguards are not adequately implemented in a timely manner. For example, the failures to implement adequate wastewater treatment, environmental monitoring systems, to secure adequate funding or to implement environmental and social mitigation measures as well as the current lack of institutional mechanisms and procedures to ensure the sustainable and planned development of the region; and lack of external coordination with other donor-funded projects in the Northern region would all have significant impacts on the reputations of the Bank, the GoH and other agencies.

V. RECOMMENDATIONS AND REQUIREMENTS TO BE INCLUDED IN THE LEGAL AGREEMENTS

A. Prior to consideration by the Board of Executive Directors[26]

5.1 Prior to consideration of the operation by the Board of Executive Directors, the following conditions must be fulfilled:

5.1.1 SONAPI[27] must submit the draft Disaster Risk Management Plan (DRMP).

5.1.2 SONAPI must submit a draft Emergency Response Plan.

5.1.3 SONAPI must submit the EHS Management team organizational chart and EHS unit budget for the PIC.

5.1.4 The ESMP for operation of the WWTP-P has been approved by the Bank and is being implemented by UTE/MEF.

5.1.5 UTE/MEF must submit the signed contract for the socio economic baseline study for Caracol Bay.

5.1.6 UTE/MEF must submit the signed contract for the firm to update the Cumulative Impact Assessment.

B. Prior to First Disbursement for Components I and III[28]

5.2 SONAPI must present the PIC EHS Management System Documents (procedures, instructions, manuals and guidelines).

5.3 SONAPI must have started the implementation of the prioritized procedures, instructions, manuals and guidelines as described in Annex 1.

5.4 SONAPI must present a copy of the PIC Rules and Regulations which will include the EHS requirements and show evidence that they have been communicated to all tenants of the PIC.

5.5 SONAPI must have started the implementation of the Emergency Response Plan.

5.6 SONAPI must present evidence that the temporary solid waste facility is adequately managed with adequate resources allocated to it.

5.7 SONAPI must have started the implementation the hazardous waste management plan.

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[26] Such requirements are to be fulfilled to the satisfaction of the Bank by the Beneficiary, through the executing agencies specified below.

[27] SONAPI refers to the "Operation Agent" of the PIC, or any other government entity responsible for the operation of the PIC

[28] All these conditions are expected to be to the satisfaction of the Bank.

5.8 SONAPI must present evidence that the EHS Management team is operational.

5.9 SONAPI must have contracted consulting services to support the preparation of the Water Safety Plan.

5.10 UTE/MEF must present evidence that the socio-economic baseline study for the Caracol Bay has commenced, and that the amendment to the contract to carry out the socio-economic baseline study for rest of PN3B has been signed.

5.11 UTE/MEF must present a copy of the signed contract for the strategy to develop the Alternative Livelihoods Plan.

5.12 UTE/MEF must present evidence that the laboratory for the permanent WWTP-P is fully operational.

C. Other Specific Requirements[29]

5.13 SONAPI must present, no later than five months after the entry into effect of the Grant Agreement, the ESMP for each tenant operating in the Park.

5.14 SONAPI must have started, no later than six months after the entry into effect of the Grant Agreement, the implementation the Disaster Risk Management Plan (DRMP).

5.15 UTE/MEF must present evidence, no later than nine months after the entry into effect of the Grant Agreement, that the hazardous waste storage facility has been constructed.

D. Throughout the life of the Grant Agreement and the operation of the PIC

5.16 The IDB will require in its Grant Agreement that the Program, the Beneficiary and the Executing Agencies specified below[30], at all times during the life of the Grant Agreement, comply with the following requirements:

5.16.1 Comply with the following IDB policies: Environmental and Safeguards Compliance Policy (OP-703), the Disaster Risk Management Policy (OP-704), the Access to Information Policy (OP-102), the Involuntary Resettlement Policy (OP-710), and the Operational Policy on Gender Equality in Development (OP-761), as well as their respective guidelines, which the Beneficiary and the Executing Agency acknowledge to know in their entirety (UTE/MEF for construction and supervision of construction activities, referred to as "construction activities", and SONAPI for the operation and management of the PIC, referred to as "operation activities").

[29] Such requirements are to be fulfilled to the satisfaction of the Bank by the Beneficiary, through the executing agencies specified below.

[30] SONAPI and UTE/MEF are the two Executing Agencies contemplated for the implementation of the operation. The execution structure may be modified pursuant to an amendment to the Grant Agreement.

5.16.2 Obtain all authorizations, licenses or permits relating to EHS, which are necessary for the execution of the Program, and submit copies to the Bank (UTE/MEF for construction activities and SONAPI for operation activities).

5.16.3 Request non-objection of the Bank for any material change that could have negative EHS impacts (UTE for construction activities and SONAPI for operation activities).

5.16.4 Agree to fully cooperate with the Independent Consultation and Investigation Mechanism (ICIM) of the Bank, provided that ICIM covers its own costs (UTE for construction activities and SONAPI for operation activities).

5.16.5 Implement the following specific actions during the period of effectiveness of the Grant Agreement (UTE for construction and SONAPI for Operation).

i. Consultation activities, information disclosure, participatory monitoring, and grievance management related to EHS aspects of the program, as specified in the ESMP and the Grant Agreement;

ii. Ensure that all suppliers, service providers, companies or persons, and their subcontractors, hired by the Beneficiary comply with the EHS requirements applicable.

5.16.6 Within 15 days following its occurrence or identification: (i) for any substantial non-compliance with any of the EHS requirements, the Beneficiary must send a written notice to the Bank and (ii) for any substantial impact, event, claim or complaint about EHS aspects of HA-L1091 operation, the Beneficiary shall send a written notice to the Bank and other stakeholders and develop and start implementation of remedial or corrective measures (UTE for construction activities and SONAPI for operation activities).

5.16.7 SONAPI shall present copies of the signed PIC lease/tenancy agreements.

5.16.8 SONAPI must implement an EHS system consistent with ISO14001 and OHSAS 18001.

5.16.9 SONAPI must maintain in place at all times a PIC Manager.

5.16.10 UTE/MEF must comply at all times with all requirements set forth in the ESMPs relevant for the PIC.

5.16.11 UTE/MEF must present for the Bank's non-objection at least one month prior to the start of construction, the EA and ESMP for the different urban works projects under Component II of the HA-L1091 operation.

5.16.12 UTE/MEF must present for the Bank's non-objection at the start of construction, the EA and ESMP for the construction activities under Component I of the HA-L1091 operation.

E. Reporting, monitoring and supervision of EHS safeguards

5.17 The Beneficiary, through the Executing Agencies, must implement the internal EHS supervision and audit arrangements, and the provisions for correction of non-compliances and remediation of negative impacts, such as EHS Management System mechanisms for continuous improvement (UTE for construction activities and SONAPI for operation activities).

5.18 During the construction phase of the operation, the UTE/MEF must submit monthly EHS supervision reports following the format agreed with the Bank, within thirty (30) days following the end of each calendar month.

5.19 During the disbursement period of the Grant Agreement, the SONAPI must submit monthly EHS supervision reports following the format agreed with the Bank, within thirty (30) days following the end of each calendar month.

5.20 During the disbursement period of the Grant Agreement, the Beneficiary, through the Executing Agencies, must submit monthly EHS Compliance Reports, within thirty (30) days following the end of each calendar month (UTE/MEF for construction activities and SONAPI for operation activities).

5.21 For two (2) years following the date of last disbursement, the SONAPI, must submit semi-annual EHS Compliance Reports, within sixty (60) days following the end of each semester of the fiscal year.

5.22 Starting three (3) years until five (5) years following the date of last disbursement, the SONAPI must deliver to the Bank, Annual EHS Compliance Reports within sixty (60) days following the end of each fiscal year.

VI. ANNEX 1

6.1 The following procedures, guidelines and instructions of the EHS Management System were prioritized:

- EHSP-01: EHS Management System Manual
- EHSP-05: Emergency Preparedness and Response Procedure
- EHSP-06: Nonconformity handling
- EP-04, EI-04A and EI-04B: Waste Management Procedure (EP-04), Instruction (EI-04A) and Guideline (EI-04B)
- EP-07 and EI-07: Handling and Storage of Chemicals Procedure (EP-07) and Instruction (EI-07)
- SP-01: Community Grievance Mechanism Procedure
- SP-02 and SI-02: Workers and Community Transportation Management and Safety Procedure (SP-02) and Instruction (SI-02)
- SP-03: Site Access and Security Procedure
- SP-04 and SI-04: Stakeholder Engagement Procedure (SP-04) and Instruction (SI-04)
- HSP-01: Workers Transportation Safety (within PIC) Procedure
- HSP-02: Occupational Health and Safety Procedure