PROJECT PROFILE

HAITI

I. BASIC DATA

Project Name:	Solid Waste Management and Urban Improvement in Northern Haiti		
Project Number:	HA-L1106		
Project Team:	Javier Grau, Team Leader (WSA/CPN); Jesús Navarrete, Alternate Team Leader (CSD/HUD); Alfredo Rihm, Corinne Cathala, Hubert Quille, Efraín Rueda, Federico Scodelaro and Irene Cartin (INE/WSA); Carlos Faleiro (WSA/CDR); Patricio Zambrano-Barragán, Marion Joubert, and Dianela Avila (CSD/HUD); Ana María Sáiz (HUD/CHA); Anamaría Nuñez (EXR/CMG); Serge Troch, Doris Barandiaran Salcedo, Soraya Senosier (VPS/ESG); and Taos Aliouat (LEG/SGO)		
Beneficiary:	Republic of Haiti		
Executing Agency:	Ministry of Economy and Finance, through its Technical Execution Unit (MEF/UTE), and the *Comité Interministériel d'Aménagement du Territoire* (CIAT)		
Financial Plan:	IDB Grant Facility:	US$	25,000,000
	Total:	US$	25,000,000
Safeguards:	Policies triggered:	OP-102, OP-703, OP-704, OP-710, OP-761	
	Classification:	B	

II. GENERAL JUSTIFICATION AND OBJECTIVES

2.1 **National Socio-Economic Context**. Haiti has 10.9 million inhabitants, 1.8 million of whom live in the North and Northeast Departments—one of the fastest-growing and urbanizing regions in the country[1]. Given profound regional imbalances[2], high levels of unemployment[3], poverty[4], and inequality[5], the Government of Haiti (GOH) has prioritized decentralization through promotion of regional economic growth and job creation, with a special focus in the Northern Region.

2.2 **Regional Development in the Northern Region.** In this context, the GOH has promoted numerous complementary economic development initiatives in the Northern Region. In November 2011, the GOH, in partnership with the Inter-American Development Bank (IDB) and the Government of the United States, opened the Caracol Industrial Park (PIC) to foster productive growth in Haiti's

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1 2015 estimates by the *Institut Haïtien de Statistique et d'Informatique* (IHSI).

2 The country's capital, Port-au-Prince, is responsible for 80% of the country's industrial, commercial, and financial activities, and for 88% of financial sector output. Post Disaster Needs Assessment (PDNA), 2010; MEF/Banque de la République d'Haïti 2010; Survey of the Groupe Croissance S.A., 2011.

3 Estimated at 39.5% in 2012.

4 59% of the population lives below the national poverty line (US$2.44/day) and 24% live with less than US$1.24/day.

5 The Gini coefficient for Haiti is 59.2, according to the World Bank.

Northern Region.[6] Located 25 km east of Cap-Haïtien—the country's second largest and fastest growing city—the PIC has been implemented at a fast pace and has achieved significant results.[7] Some of the projects developed in support of and in parallel to the PIC include USAID and IDB-funded housing projects (over 1,000 units spread throughout the region); a Multilateral Investment Fund (MIF)-funded project for a pilot test of a transformative new social business model for the economically sustainable provision of household sanitation services and ecological waste treatment in Cap-Haïtien; a new university campus southeast of Cap-Haïtien (financed in part by the Dominican Republic); tourism development (Ministry of Economy and Finance, with the World Bank), health facilities (European Union, EU); agriculture and private sector development projects (Ministry of Agriculture, Natural Resources, and Rural Development, in collaboration with USAID): a new Potable Water System for Ouanaminthe (IDB and FECASALC/Spanish Cooperation)[8]; and the creation of a new protected area along the region's coastline (the Three Bays National Park). Additional projects currently being developed include the expansion of the seaport in Cap-Haitien, which calls for major road network changes to facilitate access.

2.3 As a result of these investments, the Northern Region is experiencing significant changes and urbanizing rapidly, attracting citizens from other regions. The region is defined by common economic (generally described in the previous paragraph), social, territorial, and environmental features, and extends 70 km along *Route Nationale 6*, the main transportation backbone that was rehabilitated by the EU in 2008. The RN6 connects the region's major urban areas: Cap-Haïtien (*Nord* department) as well as Ouanaminthe (*Nord-Est* department), a major trading city by the border with the DR. The RN6 services 13 *communes*, which together span approximately 1,460 square km.[9]

2.4 **Regional and Local Development Challenges.** Given recent economic development initiatives, the region's population could grow from approximately 600,000 to 1,000,000 people by 2040[10]. Most of this growth will take place in Cap-Haïtien, the administrative capital for the North Department and the region's largest city. While recent official estimates from the IHSI indicate that this area has over 280,000 residents, of which 90.6% are urban, the Commune (municipality) of Cap-Haïtien claims the actual figure is closer to 500,000.[11] These figures reflect rapid growth experienced in the overall metropolitan area, which, besides Cap-Haïtien, include the adjacent *commune* of Limonade (pop. 52,625; 35% urban). Rapid growth is also expected to affect the *communes* closest to the PIC—Trou-du-Nord, Terrier Rouge, and Caracol—and in settlements along RN6.

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6 Implemented through five IDB operations: 2552/GR-HA (2011), 2779/GR-HA (2012), 3132/GR-HA (2013), 3384/GR-HA/HA-G1035 (2014), and 3623/GR-HA (2015).

7 It currently hosts five tenants (in apparel, paint, sisal production, and fragrance manufacturing) and employs over 8,000 workers, of which over 65% is female. The PIC's production value (mostly for exports) reached US$54 million by the end of 2014. Its labor force is projected to reach 20,000 people by 2020.

8 1010/SF-HA (BID) and GRT/WS-12277-HA (FECASALC).

9 Cap-Haïtien, Limonade, and Quartier Morin (Nord department); and Capotille, Caracol, Ferrier, Fort-Liberté, Mont-Organisé, Ouanaminthe, Perches, Sainte-Suzanne, Terrier-Rouge, and Trou-du-Nord (Nord-Est department).

10 CIAT's *Plan d'Aménagement du Nord/Nord-Est* (2012), based on IHSI estimates.

11 *Scenario de Reformulation du Projet de Gestion des Déchets Ménagers au Cap Haïtien. Mairie du Cap. Septembre 2015.*

Overall, as the PIC continues to develop, these *communes* will grow in parallel: from 135,000 to 167,000 in the next four years, and will double to 330,000 by 2040.[12]

2.5 The region presents profound deficits in formal sanitation infrastructure, wastewater treatment, and solid waste collection and disposal systems. This situation puts considerable pressure on the region's resource base (pollution of soils, surface and underground water), and increases the vulnerability of the zone to natural hazards, especially flooding[13]. Other deficits include housing and social and public amenities[14]. Deficits in urban mobility result from the fact that the region's most important trip generators, such as the PIC, are located far away from existing urban areas. This requires workers and students to travel long distances on planned roads and informal roads that all converge on the national road RN6, increasing congestion and safety issues at these points.[15]

2.6 **Solid Waste Management.** This dynamic is exemplified by the case of the Cap-Haïtien metropolitan area. This area lacks operational drinking water and sanitation systems and has no proper solid waste management, which overwhelms the already limited drainage systems and results in debris and garbage to spread throughout the metropolitan area. In particular, solid waste management presents alarming deficiencies. Currently, the *commune* of Cap-Haïtien owns five compactor trucks, four of which are operated by the SMCRS[16] following a door-to-door collection circuit only in the city center, on the main roads and public squares.[17] In addition, there are formal waste collectors that work with businesses and users who can afford to pay a fee for waste collection.[18] There are also a number of informal collectors that work on demand, and negotiate waste haulage from households for tips. Overall, this system has no delimited area for final disposal and even formal municipal collection units dispose waste in *ravines* and in informal micro disposal sites. Highlighting the link between solid waste and environmental resources, the main waterway that runs through Cap-Haïtien, the 25km-long river *Haut-de-Cap*, has lost its original surrounding sandy soils to waste that today covers most of the riverside affecting the existing mangroves (known as

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12 Northern Corridor - Urban Growth and Climate Change Study. IDB & ERM, 2015.

13 Currently 50-58% of waste ends up in nature, 25% on vacant land in informal dumps and the remainder is burned and landfilled. If these practices continue, drainage systems, riverways, mangroves and marine habitats will be significantly endangered. AIA 2012.

14 In the 4 *communes* around the PIC, between 20% (Trou du Nord) and 70% (Caracol) of existing houses are considered vulnerable, and the households have poor access to basic services (less than 10% of the households of the *communes* are connected to DINEPA water). A household survey on quality of life in these 4 *communes* highlights that 90% of the population considers that it lacks public and cultural spaces, and 80% lack public services such as schools, health facilities and commerce. *Northern Development Corridor Action Plan*. IDB- Sustainable Cities (2016, forthcoming).

15 Average travel times in the region exceed 45 minutes, and most transportation modes are not affordable (with costs sometimes reaching over 100% of daily incomes). IDB & WSP (2015).

16 SMCRS (*Service Métropolitain de Collecte des Résidus Solides*) is a public entity, created by the Decree of March 3rd, 1981. It is financed with public funds.

17 The total budget of the *Commune* is US$1.5 million[17], of which less than 10% (about US$115,000) is used for the solid waste collection service. Of the solid waste budget, 70% is dedicated to staff salaries. SMCRS contributes an estimated US$150,000 for solid waste management, but this contribution is not well documented. *Prestation d'appui-conseil en vue d'une réorientation du projet GIDE à Haïti. Analyse critique et propositions. Groupement INDDIGO-BRL ingénierie*. Novembre 2015.

18 Four companies, serving a total of 1,350 customers, have been identified operating in the city.

Bassin Rhodo). Houses have been built on top of this waste, with residents making a living from informal recycling. This situation, coupled with persistent deforestation, causes recurrent flooding in the city, the most recent one in February of 2016.

2.7 To address these issues, the IDB along with AfD and other international donors have begun to implement improvements in the sector. AfD focused its efforts on the €3.4m GIDE Project (*Gestion Intégrée des Déchets et Environment*), financed since 2010. This project focuses on the development of a metropolitan solid waste management system that includes Cap-Haïtien, Limonade and Quartier Morin. The GIDE includes components for solid waste management and institutional strengthening. During these years, GIDE has delivered several products, such as: identification of the Mouchinette site in Limonade for the construction of a regional sanitary landfill; feasibility studies for the construction of the sanitary landfill; and the creation of an entity - the AITOM[19]- for the management and operation of the sanitary landfill. In terms of institutional strengthening, the project has produced a Strategic Plan for Management of Solid Waste for Cap Haïtien Municipality (August 2014), and its complementary Action Plan (February 2014) and Communications Plan (May 2014).

2.8 The proposed IDB operation aims to accompany AfD efforts in the solid waste sector in Northern Haiti. For this purpose, the Bank is working in close partnership with AfD, coordinating activities, sharing products, and communicating lessons learned, according to the schedule of each project. A critical component of GIDE is the launch of a new pilot program in the Petite-Anse section of Cap-Haïtien. More than 20,000 people will benefit from this program, which will cover all phases of the solid waste management cycle: collection, transport, sorting, and on-site composting in Mouchinette, as well as institutional strengthening and transfer of know-how. This component will be carried out until December 2018. The Bank team expects that the proposed IDB operation will greatly benefit from the GIDE pilot program, while extending the benefits of better solid waste management to a larger population in Northern Haiti.

2.9 **Urban Infrastructure and Services**. Profound deficits in infrastructure and basic services also characterize the *communes* in the Northern Region, affecting especially their urban populations. For instance, Limonade, a *commune* that is home to the region's state university campus and a key commercial throughway for the North, lacks most basic services and urban amenities – a condition that severely affects the quality of life of more than 4,000 urban families. The *commune* has little coverage of water supply[20] and electricity,[21] and a largely informal and

[19] The three communes have formed the AITOM (*Association Intercommunale de Traitement des Ordures Ménagères*) with the objective of managing the future sanitary landfill in Mouchinette. The site was originally identified in 2011, and the GOH issued the title of the site to AITOM in 2012. See IDBDocs #40113133 and #40113139.

[20] 10% of people are connected to DINEPA. 30% of the surveyed houses get water from private cisterns, and 55% have to obtain it by the use of public kiosks.

[21] Only 16% of households report having a power connection. Living Conditions Survey in Northern Haiti.

unpaved road system[22], especially in the recently occupied areas in the eastern part of the *commune*. Sporting and cultural facilities are nonexistent or poorly equipped[23], even though they are highly desired by the local population. Indeed, a recent survey shows that 93% of the population considers that it lacks well-equipped public space (89%), cultural places (81%), schools (80%) and health centers (96%).[24] In addition, Limonade is home to over 40% of the PIC's workers and to the only state university in the region, and is therefore an important transportation hub[25] that is severely affected by congestion.[26] Congestion occurs most frequently at the intersection between the RN6 and the main access road to the *commune*), where there is conflict of uses across multiple actors and activities (commercial, transport, social). This results in major safety issues[27] and poor usage of urban land. Finally, the *commune* is also highly vulnerable to floods (annual average losses from inland flooding range from US$120,000 to US$250,000). As is the case in Cap-Haïtien, the lack of solid waste management (informal dumping in the stream bed) and the lack of adequate storm management exacerbate flood risks in commercially important areas such as the local market and its surrounding areas.

2.10 **Operation Strategy.** The overall strategy for this operation is to improve the quality of life of the population by addressing some of the most urgent urban services and infrastructure needs, while establishing the institutional foundation for long term sustainable municipal management in Northern Haiti. This strategy seeks to build on the economic development achievements of the PIC, as well as from projects and initiatives led by partner institutions and agencies in the region.

2.11 **Operation Objective**. The objective of the operation is to improve environmental conditions and the livelihoods of inhabitants of Haiti's Northern region through improved solid waste management practices and the implementation of integrated urban infrastructure projects, while focusing on strengthening institutional capacity in municipal management. The operation will have three main components:

2.12 **Component 1: Solid Waste Management.** This component will finance the construction of a disposal site in Mouchinette, adding to AfD's GIDE pilot infrastructure such as a large disposal cell and transfer stations. The component also aims to activate and stimulate practices such as waste minimization and

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22 Overall, the Northern Region has 197 km of roads per 100,000 people, many of which are impassable during floods or other extreme events. The urban area of Limonade has less than 2km of paved roads (out of 18km, or 11%). Sustainable Mobility Plan - Northern Development Corridor. IDB-Sustainable Cities and WSP (2016).

23 Existing facilities include a large vacant plot that is used by the community as a soccer field. There are no facilities for other sports or recreation, and the *commune* does not have a library or a community center.

24 Northern Development Corridor Action Plan. IDB- Sustainable Cities (2016, forthcoming).

25 On the RN6, the highest frequencies of tap-taps are seen between Cap-Haïtien and Limonade; Limonade and Quartier Morin, part of the Cap-Haïtien metropolitan area, represent the third largest trip generators in the region after downtown Cap-Haïtien and Ouanaminthe. Sustainable Mobility Plan - Northern Development Corridor. IDB-Sustainable Cities and WSP (2016).

26 Average travel time for Limonade is between 26-30 minutes, while average speed during peak hour (4-6PM) is 29 km/h. *Ibid*.

27 There is no data collected on transport safety in Haiti. However, the number of injuries treated at emergencies is available for 2013: 8,838 injuries were treated at emergencies in the North and North-East Departments. The rate of emergency admissions per 100,000, at 624, is much higher than the national average, which stands at 355. *Ibid.*

reuse, recycling and composting in order to guarantee the sustainability of the whole system by reducing the amount of solid waste at the final disposal site, and improving environmental conditions;

2.13 **Component 2: Integrated Urban Improvement Projects**. This component will finance urban interventions in strategic areas[28] in the *commune* of Limonade (the *commune* closest to the Mouchinette site) that seek to improve quality of life of residents and promote a more organized urban expansion through investments in urban infrastructure and social facilities, as well as support for local economic development and community engagement[29]; and

2.14 **Component 3: Institutional Strengthening for Urban Services at the national and local level.** This component will finance the design of cost recovery mechanisms, social communication programs, and creating solid waste management capacities as well as activities to strengthen territorial and urban services management at the regional and local level.

2.15 The Proposal for Operation Development (POD) will detail the specific activities within each component and the specific geographic scope of the program.

2.16 **Country Strategy**. The operation is consistent with the Action Plan for National Recovery and Development of the GOH and with its priorities of employment generation and environmental protection. The operation is also consistent with the IDB's Country Strategy with Haiti 2011-2015 (GN-2646), by promoting investment and contributing to the development of Haiti's Northern region. The operation is also consistent with the Update to the Institutional Strategy (UIS) 2010-2020 (GN-2788-5), and is aligned with the development challenges of social inclusion and equality (given that the urban interventions promote increased access to infrastructure and public services); as well as with the cross-cutting themes of climate change and environmental sustainability (by the sanitary disposal of solid waste and mitigation of related greenhouse gas emissions); and institutional capacity and rule of law (by promoting the establishment of a solid waste regulatory framework and institutional strengthening of the AITOM).

III. TECHNICAL ISSUES AND SECTOR KNOWLEDGE

3.1 **Program Design and Execution.** The program is being designed following IDB's sectoral experience in Latin America and the Caribbean, and taking into account the lessons learned from the activities of the GIDE project under implementation.

[28] Pre-identified areas of interventions include: (i) the area around the main entrance of the *commune* (where the construction of a multi-modal transportation station and commercial facilities are considered); (ii) the area at the cross between the ravine and the market (where environmental and public space improvement works are being are proposed); and (iii) the area around the football court in the eastern part of the *commune* (where construction of recreation and cultural facilities are being contemplated). Final decision on the areas to be intervened and the specific projects to be carried out will be made during Analysis Mission and based on project feasibility and cost-effectiveness.

[29] Activities to support economic development and community engagement will be directly associated with the infrastructure interventions and social facilities that will be financed by the component, so as to promote their effective management and long term sustainability.

A Technical Cooperation (TC)[30] is examining and supporting activities of the GIDE project, including: (i) support of the definition of the main activities of the Petite-Anse pilot project, including generation and composition; (ii) executive project for the construction of the Mouchinette landfill, including analysis of alternatives for solid waste treatment and disposal; (iii) market study of the compost; and (iv) identification of institutional strengthening at local and national level. In December 2012, CIAT, with the support of the Bank, completed a Northern Regional Master Plan "*Plan d'Aménagement du Nord/Nord-Est*" that includes recommendations for compact, risk-resilient, and environmentally friendly urban growth at a regional level. To complement this work, the Bank's Emerging and Sustainable Cities Initiative has developed urban plans and supporting studies for local *communes*. In the solid waste sector, the Bank has collaborated closely with international donors such as the AFD and the World Bank in joint sectoral studies.

3.2 The project's executing agency will be the Ministry of Economy and Finance through its Technical Project Unit – *Unité Technique d' Exécution* (MEF/UTE). The UTE has proven to be a dependable and efficient executing unit and has already seasoned financial and procurement specialists in place, as well as technical staff. The MEF/UTE has demonstrated significant experience in the execution of Bank-financed projects such as HA-L1077, HA-L1095 and HA-L1101.

IV. SAFEGUARDS AND FIDUCIARY SCREENING

4.1 In general terms, the program is expected to have a positive impact on the population of metropolitan Cap-Haitien. The first component aims to achieve proper collection, treatment and disposal of solid waste, presently discharged into a river basin inside the city which is impacting the quality of life of the metropolitan population of Cap-Haitien and creating an environmental problem for future generations. The second component includes integral urban projects in Limonade, and is expected to have positive environmental and social impacts through the improvement of solid waste and storm water management in the surrounding areas of the local market.

4.2 Although the project is likely to cause mostly local and short-term negative environmental and social (E&S) impacts and for which effective mitigation measures are readily available, some of its components might require special attention. Components that may require special attention include the potential resettlement associated with the access roads to the landfill, as well as other potential social impacts related to recyclers and other waste workers as well as informal vendors in the local market in Limonade. Impacts and risks during construction, operation and decommissioning of the landfill could occur from: inadequate health and safety (H&S) management; inadequate management of hazardous materials and solid waste; accidental spills, degradation of soil, flora and fauna, and impacts on water quality due to leachate discharge which does not meet effluent standards. For this reason, an environmental classification of Category B has been assigned to the project.

[30] ATN/OC-15400-HA, Improvements in Solid Waste Management on Haiti's Northern Region.

4.3 The project is also considered high risk because of its potential environmental and social risks in the long term due to limited technical capacity of the national or local agency to be in charge of the solid waste management in the North. A Technical Cooperation (HA-T1216) will support the preparation of the environmental and social studies and environmental, social, health and safety (ESHS) management documents for the proposed project. For further information, please refer to Annex III, Environmental and Social Strategy (ESS).

4.4 Given that the volume and complexity of projects managed by the MEF/UTE has increased considerably in the past years, the level of risk related to procurement activities is considered medium to high. In order to mitigate this risk, the Bank will provide support to the MEF/UTE in the elaboration of the Terms of Reference and the selection of key project management unit staff.

V. OTHER ISSUES

5.1 Currently, Haiti is suffering a period of social, institutional and economic instability due to lack of agreement for the celebration of the second round of presidential elections. This presents a risk for the execution of activities, which is not exclusive to this operation but rather a portfolio-wide issue.

VI. RESOURCES AND TIMETABLE

6.1 An estimated budget of US$90,000 from the Bank's administrative budget will be needed in order to prepare this operation (consulting services and four preparation missions).

6.2 POD distribution to the QRR is expected on January 31, 2017. Approval of the DLP by the OPC on February 28, 2017; and approval of the Loan Proposal by the Board of Executive Directors on March 29, 2017 (see Annex V).

CONFIDENTIAL

[1] The information contained in this Annex is confidential and will not be disclosed. This is in accordance with the "Deliberative Information" exception referred to in paragraph 4.1 (g) of the Access to Information Policy (GN-1831-28) at the Inter-American Development Bank.

Safeguard Policy Filter Report

Operation Information

Operation		
HA-L1106 Solid Waste Project in Cap Haitien		
Environmental and Social Impact Category	High Risk Rating	
B	{Not Set}	
Country	Executing Agency	
HAITI	{Not Set}	
Organizational Unit	IDB Sector/Subsector	
Housing and Urban Depelopment Division	SOLID WASTE, SOCIAL PROJECTS	
Team Leader	ESG Lead Specialist	
JAVIER GRAU BENAIGES	{Not Set}	
Type of Operation	Original IDB Amount	% Disbursed
Loan Operation	$0	0.000 %
Assessment Date	Author	
13 Jun 2016	doriss ESG Lead Specialist	
Operation Cycle Stage	Completion Date	
ERM (Estimated)	6 Jul 2016	
QRR (Estimated)	5 Sep 2016	
Board Approval (Estimated)	{Not Set}	
Safeguard Performance Rating		
{Not Set}		
Rationale		
{Not Set}		

Safeguard Policy Items Identified

B.1 Bank Policies (Access to Information Policy– OP-102)

The Bank will make the relevant project documents available to the public.

B.1 Bank Policies (Disaster Risk Management Policy– OP-704)

The operation is in a geographical area exposed to natural hazards (Type 1 Disaster Risk Scenario). Climate change may increase the frequency and/or intensity of some hazards.

B.1 Bank Policies (Disaster Risk Management Policy– OP-704)

The operation includes activities related to climate change adaptation, but these are not the primary objective of the operation.

B.1 Bank Policies (Gender Equality Policy– OP-761)

The operation offers opportunities to promote gender equality or women's empowerment.

B.1 Bank Policies (Resettlement Policy– OP-710)

The operation has the potential to disrupt the livelihoods of people living in the project area of influence (not limited to involuntary displacement, see also Resettlement Policy)

B.11. Pollution Prevention and Abatement

The operation has the potential to pollute the environment (e.g. air, soil, water, greenhouse gases).

B.17. Procurement

Suitable safeguard provisions for the procurement of goods and services in Bank financed operation will be incorporated into project-specific loan agreements, operating regulations and bidding documents, as appropriate, to ensure environmentally responsible procurement.

B.2 Country Laws and Regulations

The operation is in compliance with laws and regulations of the country regarding specific women's rights, the environment, gender and indigenous peoples (including national obligations established under ratified multilateral environmental agreements).

B.3 Screening and Classification

The operation (including associated facilities) is screened and classified according to its potential environmental impacts.

B.4 Other Risk Factors

The borrower/executing agency exhibits weak institutional capacity for managing environmental and social issues.

B.4 Other Risk Factors

The operation may be of high risk due to controversial environmental and associated social issues or liabilities.

B.5 Environmental Assessment Requirements

An environmental assessment is required.

B.6 Consultations

Consultations with affected parties will be performed equitably and inclusively with the views of all stakeholders taken into account, including in particular: (a) equal participation by women and men, (b) socio-culturally appropriate participation of indigenous peoples and (c) mechanisms for equitable participation by vulnerable groups.

B.7 Supervision and Compliance

Safeguard Policy Filter Report

The Bank will monitor the executing agency/borrower's compliance with all safeguard requirements stipulated in the loan agreement and project operating or credit regulations.

Potential Safeguard Policy Items

B.15. Co-financing Operations

The operation or any of its components is being co-financed.

B.4 Other Risk Factors

The operation includes activities to close current “adaptation deficits” or to increase the ability of society and ecological systems to adapt to a changing climate.

Recommended Actions

Operation has triggered 1 or more Policy Directives; please refer to appropriate Directive(s). Complete Project Classification Tool. Submit Safeguard Policy Filter Report, PP (or equivalent) and Safeguard Screening Form to ESR.

Additional Comments

[No additional comments]

Safeguard Screening Form

Operation Information

Operation		
HA-L1106 Solid Waste Project in Cap Haitien		
Environmental and Social Impact Category	High Risk Rating	
B	{Not Set}	
Country	Executing Agency	
HAITI	{Not Set}	
Organizational Unit	IDB Sector/Subsector	
Housing and Urban Depelopment Division	SOLID WASTE, SOCIAL PROJECTS	
Team Leader	ESG Lead Specialist	
JAVIER GRAU BENAIGES	{Not Set}	
Type of Operation	Original IDB Amount	% Disbursed
Loan Operation	$0	0.000 %
Assessment Date	Author	
13 Jun 2016	doriss ESG Lead Specialist	
Operation Cycle Stage	Completion Date	
ERM (Estimated)	6 Jul 2016	
QRR (Estimated)	5 Sep 2016	
Board Approval (Estimated)	{Not Set}	
Safeguard Performance Rating		
{Not Set}		
Rationale		
{Not Set}		

Operation Classification Summary

Overriden Rating	Overriden Justification
Comments	

Conditions / Recommendations

Category "B" operations require an environmental analysis (see Environment Policy Guideline: Directive B.5 for Environmental Analysis requirements)

The Project Team must send to ESR the PP (or equivalent) containing the Environmental and Social Strategy (the requirements for an ESS are described in the Environment Policy Guideline: Directive B.3) as well as the Safeguard Policy Filter and Safeguard Screening Form Reports. These operations will normally require an environmental and/or social impact analysis, according to, and focusing on, the specific issues identified in the screening process, and an environmental and social management plan (ESMP). However, these operations should also establish safeguard, or monitoring requirements to address environmental and other risks (social, disaster, cultural, health and safety etc.) where necessary.

Summary of Impacts / Risks and Potential Solutions

Moderate Greenhouse Gas Emissions are predicted.

Greenhouse Gas (GHG) Assessment: The borrower should promote the reduction of project-related greenhouse gas emissions in a manner appropriate to the nature and scale of project operations and impacts. The borrower should quantify direct emissions from the facilities owned or controlled within the physical project boundary and indirect emissions associated with the off-site production of power used by the project. Quantification and monitoring of GHG emissions should be conducted annually in accordance with internationally recognized methodologies (i.e. IPCC - http://www.ipcc.ch/). In addition, the borrower should evaluate technically and financially feasible and cost-effective options for the reduction/offset of emissions that may be achieved during the design and operation of the project. The Sustainable Energy and Climate Change Initiative (SECCI) can help with this task (http://www.iadb.org/secci/).

A natural hazard is likely to occur or be exacerbated due to climate-related changes and the likely severity of the impacts to the project is moderate.

A Disaster Risk Assessment, that includes a Disaster Risk Management Plan (DRMP) may be necessary, depending on the complexity of the project and in cases where the vulnerability of a specific project component may compromise the whole operation. The DRMP should propose measures to manage or mitigate these risks to an acceptable level. The measures should consider both the risks to the project, and the potential for the project itself to exacerbate risks to people and the environment during construction and operation. The measures should include risk reduction (siting and engineering options), disaster risk preparedness and response (contingency planning, etc.), as well as financial protection (risk transfer, retention) for the project. They should also take into account the country's disaster alert and prevention system, general design standards and other related regulations. For details see the DRM policy guidelines.

Generation of solid waste is moderate in volume, does not include hazardous materials and follows standards recognized by multilateral development banks.

Solid Waste Management: The borrower should monitor and report on waste reduction, management and disposal and may also need to develop a Waste Management Plan (which could be included in the ESMP). Effort should be placed on reducing and re-cycling solid wastes. Specifically (if applicable) in the case that national legislations have no provisions for the disposal and destruction of hazardous materials, the applicable procedures established within the Rotterdam Convention, the Stockholm Convention, the Basel Convention, the WHO List on Banned Pesticides, and the Pollution Prevention and Abatement Handbook (PPAH), should be taken into consideration.

Likely to have minor to moderate emission or discharges that would negatively affect ambient environmental conditions.

Management of Ambient Environmental Conditions: The borrower should be required to prepare an action plan (and include it in the ESMP) that indicates how risks and impacts to ambient environmental conditions can be managed and mitigated consistent with relevant national and/or international standards. The borrower should (a) consider a number of factors, including the finite assimilative capacity of the environment, existing and future land use, existing ambient conditions, the project's proximity to ecologically sensitive or protected areas, and the potential for cumulative impacts with uncertain and irreversible consequences; and (b) promote strategies that avoid or, where avoidance is not feasible, minimize or reduce the release of pollutants, including strategies that contribute to the improvement of ambient conditions when the project has the potential to constitute a significant source of emissions in an already degraded area. The plan should be subject to review by qualified independent experts. Depending on the financial product, this information should be referenced in appropriate legal documentation (covenants, conditions of disbursement, etc.).

Project construction activities are likely to lead to localized and temporary impacts (such as dust, noise, traffic etc) that will affect local communities and workers but these are minor to moderate in nature.

Construction: The borrower should demonstrate how the construction impacts will be mitigated. Appropriate management plans and procedures should be incorporated into the ESMP. Review of implementation as well as reporting on the plan should be part of the legal documentation (covenants, conditions of disbursement, etc).

Safety issues associated with structural elements of the project (e.g. dams, public buildings etc), or road transport activities (heavy vehicle movement, transport of hazardous materials, etc.) exist which could result in moderate health and safety risks to local communities.

Address Community Health Risks: The borrower should be required to provide a plan for managing risks which could be part of the ESMP; (including details of grievances and any independent audits undertaken during the year). Compliance with the plan should be monitored and reported. Requirements for independent audits should be considered if there are questions over borrower commitment or potential outstanding community concerns.

The negative impacts from production, procurement and disposal of hazardous materials (excluding POPs unacceptable under the Stockholm Convention or toxic pesticides) are minor and will comply with relevant national legislation, IDB requirements on hazardous material and all applicable International Standards.

Monitor hazardous materials use: The borrower should document risks relating to use of hazardous materials and prepare a hazardous material management plan that indicates how hazardous materials will be managed (and community risks mitigated). This plan could be part of the ESMP.

The project is located in an area prone to high winds, blizzards, wildfires, heat waves or cold waves, and the likely severity of impacts to the project is significant or extreme.

A Disaster Risk Assessment that includes a Disaster Risk Management Plan (DRMP) must be prepared. The DRMP should focus on the specific risks posed by any of these natural hazards to the project, and propose measures to manage or mitigate these risks to an acceptable level. The measures should consider both the risks to the project, and the potential for the project to exacerbate risks to people and the environment during construction and operation. The measures should include risk reduction (siting and engineering options), disaster risk preparedness and response (contingency planning, etc.), as well as financial protection (risk transfer, retention) for the project. They should also take into account the country's disaster alert and prevention system, general design standards and other related regulations. For details see the DRM policy guidelines.

The project is located in an area prone to hurricanes or other tropical storms and the likely severity of the impacts to the project is moderate.

A Disaster Risk Assessment, that includes a Disaster Risk Management Plan (DRMP), may be necessary, depending on the complexity of the project and in cases where the vulnerability of a specific project component may compromise the whole operation. The DRMP should propose measures to manage or mitigate these risks to an acceptable level. The measures should consider both the risks to the project, and the potential for the project itself to exacerbate risks to people and the environment during construction and operation. The measures should include risk reduction (siting and engineering options), disaster risk preparedness and response (contingency planning, etc.), as well as financial protection (risk transfer, retention) for the project. They should also take into account the country's disaster alert and prevention system, general design standards and other related regulations.

The project is located in an area prone to inland flooding and the likely severity of the impacts to the project is moderate.

A Disaster Risk Assessment, that includes a Disaster Risk Management Plan (DRMP), may be necessary, depending on the complexity of the project and in cases where the vulnerability of a specific project component may compromise the whole operation. The DRMP should propose measures to manage or mitigate these risks to an acceptable level. This must take into consideration changes in the frequency and intensity of intensive rainfall and in the patterns of snowmelt that could occur with climate change. The DRMP includes risk reduction measures (siting and engineering options), disaster risk preparedness and response (contingency planning, etc.), as well as the financial protection (risk transfer, retention) of the project. The DRM Plan takes into account existing vulnerability levels and coping capacities, the area's disaster alert and prevention system, general design standards, land use regulations and civil defense recommendations in flood prone areas. However, the options and solutions are sector- and even case-specific and are selected based on a cost analysis of equivalent alternatives.

The project is located in an area prone to earthquakes and the likely severity of impacts to the project is moderate.

A Disaster Risk Assessment, that includes a Disaster Risk Management Plan (DRMP), may be necessary, depending on the complexity of the project and in cases where the vulnerability of a specific project component may compromise the whole operation. The DRMP should propose measures to manage or mitigate these risks to an acceptable level. The measures should consider both the risks to the project, and the potential for the project itself to exacerbate risks to people and the environment during construction and operation. The measures should include risk reduction (siting and engineering options), disaster risk preparedness and response (contingency planning, etc.), as well as financial protection (risk transfer, retention) for the project. They should also take into account the country's disaster alert and prevention system, general seismic design standards and other related regulations.

The project will or may require involuntary resettlement and/or economic displacement of a minor to moderate nature (i.e. it is a direct impact of the project) and does not affect indigenous peoples or other vulnerable land based groups.

Develop Resettlement Plan (RP): The borrower should be required to develop a simple RP that could be part of the ESMP and demonstrates the following attributes: (a) successful engagement with affected parties via a process of Community Participation; (b) mechanisms for delivery of compensation in a timely and efficient fashion; (c) budgeting and internal capacity (within borrower's organization) to monitor and manage resettlement activities as necessary over the course of the project; and (d) if needed, a grievance mechanism for resettled people. Depending on the financial product, the RP should be referenced in legal documentation (covenants, conditions of disbursement, project completion tests etc.), require regular (bi-annual or annual) reporting and independent review of implementation.

The project will result in a minor to moderate increase in community risks from disease or natural resources risks.

Manage Increased Risk of Disease: Where a project will generate environmental health risks (such as increased risk from disease and environmental hazards), the borrower should be required to develop a environmental health risk plan (this will require input from professionally competent advisers/ consultants). There should be engagement with affected communities and compliance with the plan should be monitored and reported. Where specific diseases are endemic in communities in the investment area of influence, the borrower is encouraged to explore opportunities to reduce their incidence.

Disaster Risk Summary

Disaster Risk Level

High

Disaster / Recommendations

The reports of the Safeguard Screening Form (i.e. of the Safeguards Policy and the Safeguard Classification Filters) constitute the Disaster Risk Profile to be summarized in and annexed to the Environmental and Social Strategy (ESS).The Project Team must send the PP (or equivalent) containing the ESS to the ESR.

The Borrower should consider including disaster risk expertise in the organization of project oversight, e.g. in the project's panel of experts. For the Bank's requirements, the Borrower addresses the screened disaster risks in a Disaster Risk Management Summary reviewing disaster and climate change risks associated with the project on the basis of a Disaster Risk Assessment (DRA). Based on the specified hazards and the exposure of the project area, it demonstrates the potential impact of the rapid onset events and/or slow inset changes for the project and its area including exacerbated risks for people and environment, given local vulnerability levels and coping capacities. Furthermore the DRM Summary presents proposed measures to manage or mitigate these risks in a Disaster Risk Management Plan (DRMP). The DRA /DRMP to which the DRM Summary refers may be a stand-alone DRA document (see Directive A-2 of the DRM Policy OP-704) or included in other project documents, such as feasibility studies, engineering studies, environmental impact assessments, or specific natural disaster and climate change risk assessments, prepared for the project. These documents should be accessible for the Project Team.

The Project Team examines and adopts the DRM summary. The team remits the project risk reduction proposals from the DRMP to the engineering review by the sector expert or the independent engineer during project analysis or due diligence, and the financial protection proposals to the insurance review (if this is performed). <br/ ><br/ >The potential exacerbation of risks for the environment and population and the proposed risk preparedness or mitigation measures are included in the Environmental and Social Management Report (ESMR), and are reviewed by the ESG expert or environmental consultant. The results of these analyses are reflected in the general risk analysis for the project. Regarding the project implementation, monitoring and evaluation phases, the project team identifies and supervises the DRM approaches being applied by the project executing agency.

Climate change adaptation specialists in INE/CCS may be consulted for information regarding the influence of climate change on existing and new natural hazard risks. If the project requires modification or adjustments to increase its resilience to climate change, consider (i) the possibility of classification as an adaptation project and (ii) additional financing options for climate change, and consult the INE/CCS adaptation group for guidance.

Disaster Summary

Details

The project has been classified initially as high disaster risk because the likely severity of impacts from at least one of the natural hazards is significant or extreme. During the disaster risk assessment the project may be reclassified. Please contact ESG or a Disaster Risk Management Specialist for guidance.

Actions

Operation has triggered 1 or more Policy Directives; please refer to appropriate Directive(s). Complete Project Classification Tool. Submit Safeguard Policy Filter Report, PP (or equivalent) and Safeguard Screening Form to ESR.

HAITI

SOLID WASTE MANAGEMENT AND URBAN IMPROVEMENT IN NORTHERN HAITI

(HA-L1106)

ENVIRONMENTAL AND SOCIAL STRATEGY - ESS

Project name	Solid Waste Management and Urban Improvement in Northern Haiti
Project number	HA-L1106
Country	HAITI
Sector:	INE/WSA and CSD/HUD
Beneficiary	Republic of Haiti
Executing Agency	Ministry of Economy and Finance (MEF) through its Technical Execution Unit (UTE)
Financing:	US$ 25.000.000
IDB:	US$ 25.000.000
Classification	B
Policies Triggered	OP-703 (B.1, B.2. B.3, B.4, B.5, B.6, B.7, B.9, B.10, B.11, B.15, B.17); OP-704; OP-761; OP-710; OP-102

I. PROJECT DESCRIPTION AND ENVIRONMENTAL AND SOCIAL CONTEXT

A. Project Description

1.1. In November 2011, the Government of Haiti (GOH), in partnership with the Inter-American Development Bank (IDB) and the United States government, opened the Caracol Industrial Park (PIC) to foster productive growth in Haiti's Northern Region. Located 25km southeast of Cap-Haïtien—the country's second largest and fastest growing city. Additional projects were and are currently in development parallel to the PIC, including: USAID- and IDB-funded housing projects (over 1,000 units spread throughout the region), a new university campus southeast of Cap-Haïtien (financed in part by the Dominican Republic, DR), tourism development (Ministry of Economy and Finance, with the World Bank), health facilities (European Union, EU), agriculture and private sector development projects (Ministry of Agriculture, Natural Resources, and Rural Development, in collaboration with USAID and the IDB), a new Potable Water System for Ouanaminthe (IDB and FECASALC/Spanish Cooperation) and the creation of a new protected area along the region's coastline (the Three Bays National Park).

1.2. The Productive Infrastructure Program II (HA-L1076), which financed the second phase of the PIC, included a component that aimed to address Solid Waste Management in Northern Haiti, allocated to build a permanent landfill for the Caracol Industrial Park. Some of the resources of this component were allocated to prepare studies of the Environmental and Social Impact Assessment (ESIA) for the Mouchinette site, as well as to clear the land of the landfill area (19,6 ha), where 19 families were resettled and are currently in the process of being compensated.

1.3. The Northern region is experiencing significant change and is rapidly emerging as an important territory for urban and population growth. The region's population could grow

from approximately 600,000 to 1,000,000 people by 2040[1], most of which will take place in Cap-Haïtien. Rapid growth is also expected to affect the "*communes*"[2] closest to the PIC—Trou-du-Nord, Terrier Rouge, and Caracol—and in settlements along the RN6 road (A map of the Area is included in Annex 1). However, the region presents profound deficits and is currently unprepared for rapid growth. It lacks formal sanitation infrastructure, wastewater treatment, solid waste collection and disposal systems, a situation that puts considerable pressures on the region's resource base (pollution of soils, surface and underground water) and increase the vulnerability of the zone to natural hazards, especially flooding[3].

1.4. *L'Agence Françoise de Developpement* (AFD) has been has been supporting the Municipality of the *Arrondisement* of Cap-Haïtien in the implementation of a pilot project of Integrated Solid Waste Management (GIDE)[4]. In this context, the Municipality of the *Arrondisement* of Cap-Haïtien, under a framework of Public-Private-Partnership (PPP), will execute waste collection. The GIDE includes institutional support for inter-municipal management of a yet-to-be-built landfill at the site of Mouchinette (in Limonade) As for the treatment of waste, the communes belonging to the *Arrondisement* of Cap-Haïtien (Cap-Haïtien, Limonade, and Quartier Morin) have decided to transfer the competence to "*L'Association Intercommunale de Traitement des Ordures Menageres* (AITOM)", which will be the entity in charge of the project. The first phase of the pilot project, will be located inside the neighborhood of Aviation, in the commune of Petit Anse (Cap-Haïtien), will benefit 20,000 people and encompassing all steps in the solid waste management cycle—collection, sorting, and on-site composting in Mouchinette, as well as institutional support and know-how transfer.

1.5. The objective of the operation is to improve environmental conditions and the livelihoods of inhabitants of Haiti's Northern region through improved solid waste management practices and the implementation of integrated urban infrastructure projects, while focusing on strengthening institutional capacity in municipal management. The operation will have three main components:

- **Component 1: Solid Waste Management.** Under this component, the following will be financed: final disposal site in Mouchinette[5] and a network of transfer stations, activities to stimulate practices such as waste minimization and reuse, recycling and composting in order to guarantee the sustainability of the whole system by reducing the amount of solid waste at the final disposal site, and improving environmental conditions;

[1] CIAT's *Plan d'Aménagement du Nord/Nord-Est* (2012), based on IHSI estimates.
[2] The commune is the third-level divisions of Haiti : the first division is "Department", and the second one is "Arrondisement".
[3] Currently 50-58% of waste ends up in nature, 25% on vacant land in informal dumps and the remainder is burned and landfilled. If these practices continue, drainage systems, riverways, mangroves and marine habitats will be significantly endangered. AIA 2012.
[4] GIDE: *Gestion Intégrée des Déchets Solides*.
[5] Mouchinette is located on the North of the Route Nationale 6, in the Northeast area of Limonade. The site was originally identified in 2011 and the GOH issued title of the site to AITOM in 2012; see 40113133 and 40113139, respectively.

- **Component 2: Integrated Urban Improvement Projects.** This component will finance urban interventions in strategic areas[6] in the commune of Limonade (the commune closest to the Mouchinette site) that seek to improve quality of life of residents and promote a more organized urban expansion through investments in urban infrastructure and social facilities, as well as support for local economic development and community engagement[7]; and

- **Component 3: Institutional Strengthening for Urban Services at the national and local level.** This component will finance the design of cost recovery mechanisms, social communication programs, and creating solid waste management capacities as well as activities to strengthen territorial and urban services management at the regional and local level.

B. Environmental and Social Setting and Context

1.6. Cap-Haïtien is the second biggest city of Haiti, it's the administrative capital of the North Department. The *Institut Haitien de Statistique et d'Informatique* (IHSI) estimates that the city has over 280,000 residents, whereas the Municipality of Cap-Haïtien claims the actual number is closer to 500,000. The geography of Cap-Haïtien is divided in two distinct environments that are the mountains and the plain area, and is crossed by numerous rivers and wetlands. Over 36 km^2 (69% of the total land area) consists of hills and piémonts surrounding the northwest, where Mornes Jean and Cabane are the highest peaks. Although the area has suffered significant deforestation, the southern slopes of Morne Upper Cape have large dense agroforestry systems. The most important ravines are those of the Stirrup, Haut-du-Cap, Beautiful Hostess, At Snake and The Violet; all located in the 2nd communal Section Upper Cape.

1.7. The plain environment covers the eastern portion of the Cap from the top of the Cape River, extending from the south of the territory to the bay of Cap-Haitien in the north[8]. This environment covers an area of 16 km^2, or 31% of the total area of the total area and the entire 3rd communal section Petite-Anse. In the boundaries of the limit of Cap-Haitien are located the communes of Milot and Quartier Morin, there are extended areas with dense crops. The topography of the plateau is relatively flat, declining slightly towards the east (towards the sea). Its average elevation is 1 to 6 m above the sea level, the lowest portions being on the seafront, the banks of various rivers (rivers Haut-du-Cap and Trade) and wetlands (all with a rise of less than 2 meters)[9].

1.8. Landfill area: The ESIA developed for the Mouchinette area includes in-detail information regarding environmental and social setting. Although there wasn't a baseline study on the fauna, some species of birds have been identified, including nightingales, turtledoves, Madame Sara, guinea fowl and ortolan. Reptiles, anoles and Mabouyas,

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[6] Pre-identified areas of interventions include: (i) the area around the main entrance of the commune (where the construction of a multi-modal transportation station and commercial facilities are considered); (ii) the area at the cross between the ravine and the market (where environmental and public space improvement works are being are proposed); and (iii) the area around the foot-ball court in the eastern part of the commune (where construction of recreation and cultural facilities are being contemplated). Final decision on the areas to be intervened and the specific projects to be carried out will be made during Analysis Mission and based on project feasibility and cost-effective.

[7] Activities to support economic development and community engagement will be directly associated with the infrastructure interventions and social facilities that will be financed by the component, so as to promote their effective management and long term sustainability.

[8] A second map including the Department, *Arrondisement* and Communes is included in Annex 2.

[9] *Esquisse de Plan D'Urbanisme pour la Ville de Cap-Haitien- UNDP and Republic of Haiti (2013).*

were noticed. In terms of hydrology, the average annual precipitation for the town of Limonade is 1400 mm / year. The rainy season runs from mid-May to late October whereas the dry season runs from November to mid-May. According to the geological map of the project area, is composed of original alluvial deposits and stream spreading cones, scree and quaternary mangroves. The soil will be variably clay, loam, sandy or gravelly. Geomorphologically, the site is located in a marine plain. The Bay of Limonade belongs the 3 Bays National Park, protected area declared in 2013 by the Ministry of Environment[10]. The landfill site is located in outer boundary of protected areas upstream watershed of this park[11].

1.9. Natural Disasters: Haiti has the highest hurricane risk index of the small, developing island states. In 2008, Haiti was impacted by four successive hurricanes. Haiti is also located in a seismically active zone, with major earthquakes occurring in 1751, 1771, 1842, 1887, 1904, 1946, and most recently in 2010. Four fault lines capable of producing high magnitude shocks cross its territory. The recurrence interval is estimated at 150-200 years, with the country's capital and biggest town, Port-au-Prince, situated directly on fault lines. Specifically, the North Department has registered in 1842 an earthquake of 8.1 in the Richter scale, resulting in 10 thousand people death in Cap Haitien and 300 additional deaths from a tsunami that followed.

1.10. In addition, the department is also exposed to landslides and floods, especially in areas near and downstream of gullies serving as natural binding to the runoff, and often turn into devastating torrents carrying all before them during periods of heavy rain. This problem has worsened by the accumulation of silt deposits and waste in the bottom of the ravines. Numerous facilities in low areas of the city expose people to risks of flooding and stagnant water, especially along the river Haut-du-Cap, the periphery of the Bassin Rodo or in coastal areas of Petite Anse. The situation of stagnant water can hamper the efforts of emergency services vis-à-vis access to populations (impassable access roads) during periods of high floods. This problem is even more accentuated by the proliferation of illegal dumps near the Bassin Rodo that clutter the beds of the basin and the Upper Cape River, thus confusing the evacuation of runoff to the sea.

1.11. Biodiversity: Cap-Haïtien has two major wetlands or mangroves areas. The first is located in the Bassin Rodo in the center of the urban area of Cap-Haïtien where joins the Upper Cape river and the sea Second loin of Cap-Haitien Bay to the east in the 3rd communal section. These two areas of mangroves are rich ecosystems for both naturally manage surface water and better protect the coast from the weather. But for years these wetlands are subject to an important urban sprawl, where their respective areas have significantly been reduced by practices of deforestation of mangroves, the proliferation of illegal dumping and filling of rubbish, resulting in a mode highly precarious settlement.

[10] The Decree from the Ministry of Environment is from December 2013.
[11] The Environmental and social setting for the Urban Projects will be developed in detail in its respective ESA.

II. INSTITUTIONAL AND REGULATORY CONTEXT

A. Compliance with applicable national and international Environmental, Social, Health & Safety and Labor regulatory requirements

2.1 The principal legislation on Haitian legal framework for environmental management is the National Decree on Environmental Management of October 12, 2005 (*Décret sur la Gestion de l'Environnement et de la Régulation de la Conduite des Citoyens et Citoyennes pour un Développement Durable*), which defines the institutional framework and the policy mechanisms and instruments for environmental management in the country, including Environmental Impact Assessment (EIA) for all projects likely to have environmental impacts, as well as public disclosure of its findings.

2.2 On social aspects, the Haitian Labor Code addresses, among other things: (i) housing for workers; (ii) food for workers; (iii) the needs of pregnant women and nursing mothers; (v) health insurance for workers; and (vi) also minimum wages. Under the Haitian Labor Code, workers have the right to seek resolution of disputes relating to the payment of wages through a process mediated by the Labor Department; which might be applicable during construction and operation of the first two components of this operation.

2.3 Haiti does not have environmental and disaster risk management entities that regulate construction and rehabilitation activities. *The Code National du Bâtiment d'Haïti* (2012)[12] establishes reference codes for infrastructure construction taking into consideration regarding seismic zones, types of sol. This code uses as reference in order of importance: French norms, American norms (American Society of Civil Engineers) and Canadian norms.

B. Compliance with IDB Environmental and Social Safeguard policies

2.4 The Project will also be compliant with applicable IDB environmental and social policies: The following directives of the IDB Environment and Safeguards Compliance Policy (OP-703) are triggered by this project: B.1 (Bank Policies), B.2 (Country Laws and Regulations); B.3 (Screening and Classification); B.4 (Other Risks), B.5 (Environmental Assessment Requirements); B.6 (Consultation); B.7 (Supervision and Compliance); B.9 (Critical Natural Habitats); B.10 (Hazardous Materials); B.11 (Pollution Prevention and Abatement), B.15 (Co-financing) and B.17 (Procurement), and the Resettlement Policy (OP-710) and Disaster Risk Management Policy (OP-704). The Bank will also review compliance with the Public Information and Disclosure Policy (OP-102), as well as the Gender Equality in Development Policy (OP-761)[13] during the Environmental and Social Due Diligence (ESDD).

2.5 Based on the available information, the Project is likely to cause overall positive impacts in the long term on Environmental and Social aspects, and mostly local and short-term negative environmental and social impacts and for which effective mitigation measures will be readily available. Some negative long-term impacts might also occur due to changes in the visual landscape, substantial increase in traffic in the surrounding areas due to the larger number of trucks in the access roads, as well as air and soil pollution, among others. Potential impacts and risks will be managed through the implementation

[12] http://mtptc.gouv.ht/media/upload/doc/publications/CNBH_fusion.pdf
[13] The Project will not trigger the Indigenous Peoples Policy (OP-765).

of mitigation measures specifically designed for the project's construction, operation and closure.

2.6 However, some aspects of the operation pose risks such as resettlement associated to the access roads to the landfill, the parallel financing by other lending institutions (*AFD*), the potential impacts on informal waste pickers and the operation of the landfill in the long term. For these reasons, the classification proposed for this project is Category B – high risk.

2.7 Given that the AFD will implement in parallel its pilot project in Petiti Anse (and their ultimate site for disposal will be Mouchinette), a baseline study for waste-pickers and recyclers in the area will be needed, as well as a Social Action Plan to assess the impacts and propose actions to integrate them in the solid waste integrated management. The IDB will support the AFD in this action.

2.8 In compliance with Directive B.5 of OP-703, an Environmental and Social Impact Assessment (ESIA) has been prepared in 2015 for the construction and operation of the landfill, and will be disclosed before the Analysis Mission[14]. In addition, an Environmental and Social Analysis (ESA) for Urban component will be prepared[15]; a Resettlement Plan (if applicable) for the livelihoods located next to the potential access roads to the landfill; and a Social Plan for the informal recyclers will be disclosed before the analysis mission will be prepared and be ready before the ESDD.

2.9 Under the Resettlement Policy (OP-710), and following the Resettlement Action Plan prepared for the 19 families relocated in the 19,6 has of the area of Mouchinette to prepare the project[16], the final agreements/compensation should occur in the next few months.

III. IMPACTS RISKS AND CONTROL MEASURES

3.1 In general terms, an improvement in the management of solid waste will have a positive impact to the community of Cap Haitien and its surrounding areas through the proper collection, recovery, treatment and disposal of solid waste, currently disposed by municipal collections units on ravines and on informal micro-sites. Thus, the project is not expected to have significant and/or irreversible negative impacts on the social or biophysical environment; rather it is expected to have mostly local and short- term impacts that typically result from construction and operation of similar projects. The key potential environmental, social and health and safety (ESHS) and labor impacts and risks from this Project include:

1. Social Impacts prior Construction

3.2 Impacts prior construction phase are related to the status of the implementation of a Resettlement plan that is currently being implemented for affected people from the Mouchinette site. In addition, before starting the construction of the access roads to the landfill, environmental and social impacts related to the livelihoods in the proximity to the

[14] A brief discussion on Alternative Analysis is included in this ESIA, as well as the consultation process with the community.
[15] The ESA must also include a Disaster Risk Assessment for the intervention.
[16] This first Resettlement Plan was prepared under the HA-L1076 project.

access roads must be assessed to be determined if it resettlement will be needed. In such case, a resettlement plan and livelihood plan will be prepared. Impacts in the community might include the following: Odors and noise during the operation of the landfill, increase in traffic, Physical, chemical, and biological hazards, increase in noise, dust and odors, and occupational and environmental health issues associated with waste scavenging, as well as potential impacts such as visual impacts, change of land value to nearby households.

2. Environmental and Health and Safety Impacts and Risks during Construction and Decommisioning

3.3 Impacts expected from disruption of traffic patterns from increased circulation of construction vehicles. Surface and groundwater might be contaminated by spills and leaks of hydrocarbons (fuels and lubricants) from construction equipment. Potential impacts to soils and terrain include erosion of existing bare earth slopes; and slope erosion in the post-closure phase of the sanitary landfill. Particulate matter may be carried off-site in surface runoff, with consequent effects on surface water quality.

3.4 Occupational and community health and safety: There is a risk of accidents that could result in injuries to workers during construction. Risks include those related to exposure to noise and dust, elevated temperatures and physical hazards. The development of any sanitary landfill site entails clearing and re-contouring activities. This can result in loss of habitat for wildlife and natural vegetation.

3.5 The potential impacts that might occur during the construction are similar for the urban intervention. However, additional impacts might occur and should have special attention such as: the temporary disruption of jobs for informal vendors in the market during the construction and the cleaning of the storm water drainage, community health and safety during the construction of the sports center, loss livelihoods of current waste pickers in the market could also pose an additional risk. Given that the local market of Limonade is a social center, appropriate consultation should take place before the start of works in the intervention.

3. Potential ESHS Impacts and risks during Operations

3.6 If recyclers and waste pickers are not well integrated in the project design there is the risk of impacting their livelihoods, especially as the landfill start to operate. This impact is envisaged already in the short term, for the pilot with the AFD in Petit Anse, and to avoid this risk, the IDB will support the preparation of a social action plan for the recyclers.

3.7 Potential environmental and health risks could be linked to inadequate or insufficient control, prevention and implementation of mitigation measures related to soil, surface and groundwater, air, solid waste pollution, noise and odors. These risks increase in case the facilities are not well operated and/or maintained, resulting in the release of leachate and/or chemicals affecting surface and groundwater resources. One potential impact is the possibility of leachate entering surface water runoff and contaminating adjacent waters, such as rivers and coastal waters or migrating into groundwater.

3.8 Potential air quality impacts could include: Greenhouse Gases emissions of the landfill (including Methane, CO_2, VOC's) from the sanitary landfill site; sanitary landfill odors

reaching surrounding populated areas[17]; and the activities of on-site machinery at the landfill site.

3.9 Given that there is still uncertainty regarding the capacity of the landfill operator in the long term, and how it will work with the municipalities of Cap-Haïtien and Limonade, additional risks are associated to the capacity of managing properly environmental and social aspects once the waste facility is operational.

Indirect Impacts and Disaster Risk

3.10 Although the area of Bassin Rodo is not considered as part of the scope of the project direct area, there might exist medium/long term indirect impacts for waste workers located in the zone once the landfill is fully operational, because at that time a lower amount of waste will be arriving to the zone, and thus waste pickers might be negatively affected.

3.11 Disaster Risks: The location of the landfill is exposed to significant natural hazards, as described in Section 1.9 and 1.10, the risk classification in terms of Disaster Risk Assessment is high. Therefore it is recommended that the project will be designed taking into consideration aspects to reduce vulnerability to natural disasters, especially resilient to events such as earthquake, hurricanes, flooding, among others. Therefore, it is recommended that a Disaster Risk Assessment (DRA) and a Disaster Risk Management Plan (DRMP) will be prepared to assess how the events could potentially affect the operation of the landfill, and it should be included as part of the ESA for the urban project interventions.

IV. ENVIRONMENTAL STRATEGY FOR ANALYSIS

4.1 The Environmental and Social Strategy for Due Diligence (ESDD) will be focused on the potential environmental and social impacts and risks during all phases of the proposed operation. The ESDD will especially focus on water and waste pollution control, compliance with effluent standards and noise standards, assessment of potential resettlement in the access roads and assessment of social impacts for waste workers in Cap-Haïtien.

4.2 More specifically, the ESDD will look at the following aspects:

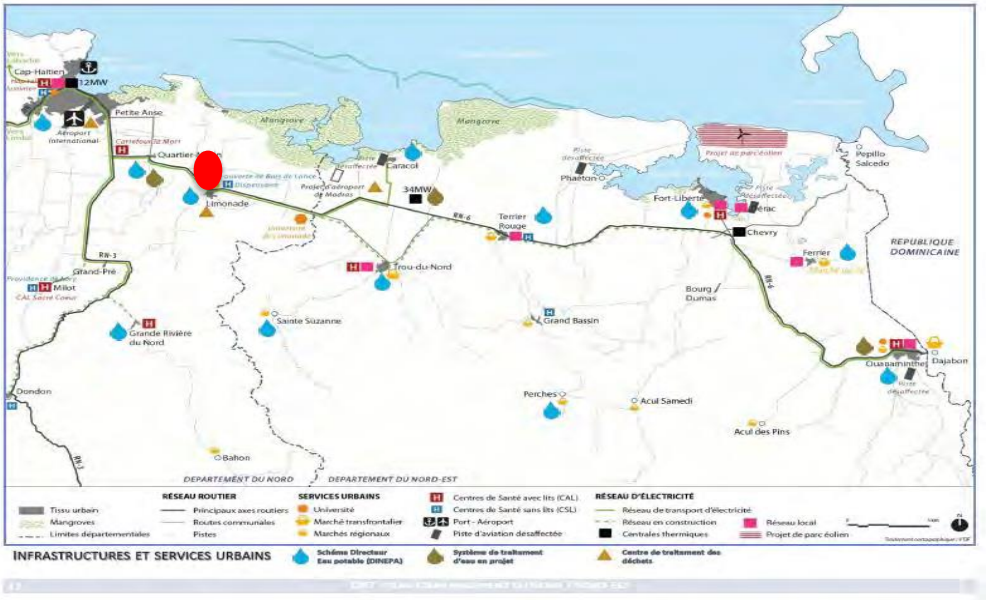
- Evaluation to confirm that the program has sufficiently defined project design details and environmental and social baseline information to assess potential impacts, risks, and mitigation requirements. This will be done through assessment of the ESIAs and corresponding ESHS management plans to confirm that the Project's direct, and indirect environmental and social impacts have been properly identified and evaluated, and that proper mitigation and management measures will be implemented. This assessment will identify any gaps and requirements for further analysis;
- Assessment of compliance with applicable IDB environmental and social policies, applicable international best practice ESHS and labor requirements such as the IFC Performance Standards and ESHS Guidelines;

[17] It is recommended that no livelihoods be located closer than 300 meters of the landfill.

- Assessment of compliance status with the applicable Environmental, Social, Health and Safety national laws and labor requirements in Haiti (e.g., laws, regulations, standards, permits, authorizations, applicable international treaties/conventions, ratified by Haiti);
- Determination of treatment (leachate, noise, etc.) standards applicable to the project, to ensure that any impacts on surface and ground water are sufficiently mitigated and managed throughout construction, operation and closure and in the case that they do not meet international standards, evaluation of the justification for the selected standards;
- Assessment of land acquisition and environmental permits applicable to the landfill plot;
- Assessment of potential relocation and/or displacement of livelihoods along the proposed area of access roads towards the landfill area,
- Assessment of loss of livelihoods and inclusion of informal recyclers for the Pilot project of the AFD in Petit Anse, and in the medium and long term.
- Assessment of any potential environmental and social issues or liabilities from the AFD project.
- Confirmation that adequate health and safety and contingency plans and procedures will be established and implemented for construction, operation and closure (including sub-contractors) to address potential worker health and safety risks associated and project-related accidental events (e.g. spills, fires);
- Confirmation that the natural disaster risks have been adequately identified, and assessed and that proper mitigation will be included and implemented in the design of the facilities and into the operational plans of the facilities;
- Assessment of the minimum capacity requirements that the long-term operator must have in terms of environmental, social and health and safety aspects, including the Municipalities involved in the project;
- Evaluation of project-related information disclosure and public consultation activities that have been performed including confirmation that the participation processes of stakeholders has been adequately conducted and that the proposed future actions to provide adequate ongoing information disclosure and public consultation with the local population is in compliance with IDB policies and if a grievance mechanism has been designed; and assessment if and plans and programs in place for continued consultation; and
- Evaluation of positive impacts and any additionality from IDB's involvement.

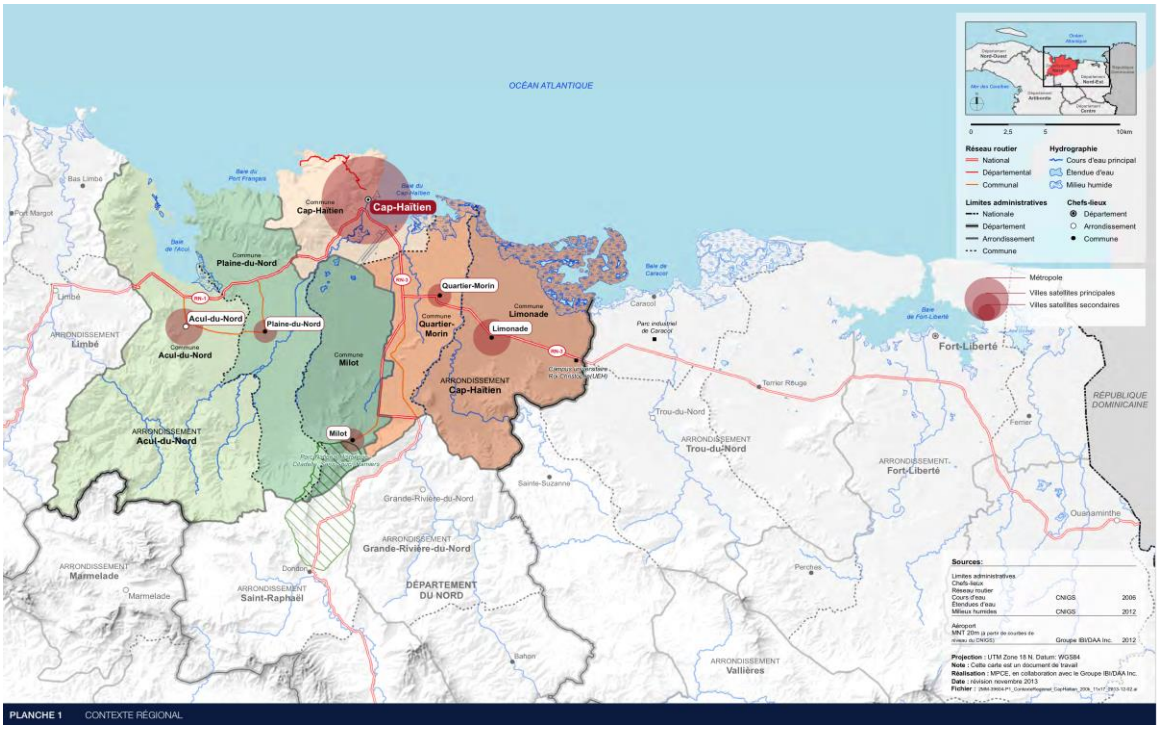
As a result of the ESDD, the IDB will prepare an Environmental and Social Management Report (ESMR) that will provide a synthesis of the relevant ESHS aspects and the proposed Bank recommendations in terms of specific ESHS requirements to be included in the Loan Agreement.

Annex 1- Proposed Area for the Solid Waste Disposal site in the Northern Region



Source: CIAT, 2012.

Annex 2- Map of Department, Arrondisement and Communes – Cap Haitien



Source; Esquisse de Plan D'Urbanisme pour la Ville de Cap-Haitien- UNDP and Republic of Haiti (2013)

INDEX for completed sector work			
Issues	**Description**	**Date**	**References & hyperlinks to files**
Cumulative Impact Assessment for the Cap-Haïtien - Ouanaminthe Development Corridor.	In 2011, the IDB and USAID commissioned a study to develop a cumulative environmental impact assessment (CIA) to examine the potential impacts on the region resulting from economic growth associated with the establishment of the Caracol Industrial Park. The study identifies: cumulative impacts and interactions of existing and proposed developments, mitigation measures to control, reduce or avoid such impacts, and management strategies to guide future development in favor of sustainable outcomes. (excludes Cap-Haïtien and Ouanaminthe)	Dec. 2012	IDBDocs# 37092181
Update on the Cumulative Impact Assessment for the Cap-Haïtien - Ouanaminthe Development Corridor.	Updated cumulative environmental impact assessment, including a review of new sources of information and analysis of new and recent developments that took place in the Northern region after 2012.	May 2015	IDBDocs# 39970805
"Plan d'Aménagement du Nord et du Nord-Est" (North and North-East Development Plan)	Prepared by the GOH's CIAT in late 2012. The Plan presents challenges to be addressed by 2030: support population growth, structure existing urban areas, transform the economy, modernize agriculture, promote heritage features, reduce vulnerabilities to natural hazards and properly manage the whole system. Includes regional-level recommendations for urban development interventions.	Dec. 2012	Public Link
Northern Development Corridor. Urban Development and Climate Change Study	Baseline study carried out as part of the implementation of the Emerging and Sustainable Cities Initiative, focused on two main topics and the four communes closest to the PIC: • **Assessment of the region's vulnerability to risks and natural hazards**. Focuses on four risk categories—flooding, seismicity, hurricanes, and drought—and includes a probabilistic analysis of hazards on the region and an estimation of impacts on existing infrastructure. • **Urban growth study**. Multi-horizon projections of urban and demographic growth with two basic scenarios (rapid vs. slow) and their respective spatial distribution and impact on existing ecological and urban assets. The growth models include the potential spatial and growth impacts of new developments and provide spatial recommendations for future urban expansion.	Feb. 2015	IDBDocs# 39489533

INDEX for completed sector work			
Issues	**Description**	**Date**	**References & hyperlinks to files**
Strategic Policy on Solid waste	A presentation of the situation concerning the solid waste collection, transport and disposal in the Metropolitan Area of Port-au-Prince. There is also a financing proposal for the whole sector and for the establishment of a regulatory entity.	December 2010	IDBDocs# 40110801
Strategic Policy on Solid waste	Technical and Regulatory proposals for a progressive reorganization of national solid waste management in Haiti	December 2015	IDBDocs# 40360940
Master plan for the upgrading of the Port-au-Prince landfill, Truitier	The document presents the master plan for the landfill and issues concerning the government strategy, legal framework, recycling system, household solid waste composition, etc.	November 2013	IDBDocs# 40112910 IDBDocs# 40112896 IDBDocs# 40112872 IDBDocs# 40112296
Strategic Plan for the Management of Solid waste in Cap-Haitien	The document presents the strategic plan of the City of Cap-Haitien to be adopted by the municipality to reach a proper management of solid waste in 2020. The document deals with institutional, financial and technical issues	August 2014	IDBDocs# 40360919
Solid Waste Management on the rural areas of the Northern and North-east Departments: Quartier Morin, Lemonade and Caracol North and north-east of Haiti	The document presents the situation of the rural villages on the RN-6 axis, from Cap-Haitian to the Dominican border. These villages have typically a non-consolidated urban center with characteristics of periurban population.	April 2014	IDBDocs# 40360830
Communication Plan of the solid waste management in the city of Cap-Haitian concerning households and other stakeholders	Communication Plan is aimed to household, civil society and stakeholders presenting the message to be sent to the community in order to achieve a sustainable solid waste management in the city of Cap-Haitian.	May 2014	IDBDocs# 40360817
Scenarios formulation of household waste management project in Cap Haitian	Definition of scenarios for the implementation of a solid waste management system.	September 2015	IDBDocs# 40113293
Advisory support for a reorientation of GIDE (Gestion Integralle de Dechets) project in Haiti. Critical analysis and proposals	The document presents a new strategic plan of the City of Cap-Haitian based on the definition of several scenarios, in order to put in place a gradual development of a solid waste management system.	November 2015	IDBDocs# 40113309
Limonade landfill site. Environmental and social impact assessment of the proposed landfill site	Environmental and social impact assessment, establishing a base line on the social aspects and environmental conditions. The document was submitted to Ministry of Environment in order to issue the environmental non-objection.	July 2015	IDBDocs# 40113116

INDEX for completed sector work			
Issues	**Description**	**Date**	**References & hyperlinks to files**
Preliminary design of the Limonade landfill.	The document presents the base studies and a proposal for the development of the landfill based on construction of three cells with an estimated capacity of 1.000.000 Ton.	September 2015	IDBDocs# 40270880
INDEX for proposed sector work			
Sustainable Mobility Plan	Baseline study carried out as part of the implementation of the Emerging and Sustainable Cities Initiative, focused on the four communes closest to the PIC. The study carried out an origin + destination survey and traffic counts at the regional level. Based on this data, the Plan includes demand projections and draw recommendations for priority mobility projects. The geographic focus is threefold: the PIC, the surrounding communes, and the Route National 6.	Jul. 2016 (final draft version)	Document not yet available (in preparation)
Living Conditions Survey	Baseline study carried out as part of the implementation of the Emerging and Sustainable Cities Initiative in collaboration with CDH, focused on the four communes closest to the PIC. Household survey in the urban and rural areas of Limonade, Terrier Rouge, Trou-du-Nord, and Caracol. The survey's questionnaire includes living conditions modules based on the last national living conditions survey (2003). Results will be representative at the commune level (n=3,000) and include an oversampling strategy to analyze socio-economic conditions inside the PIC (worker sample=800).	Sep. 2016	Document not yet available (in preparation)
Local Urban Plans for Select Communes on the Northern Development Corridor	Final output financed by the Emerging and Sustainable Cities Initiative. Developed in consultation with the GOH's CIAT and the MEF, it builds on the recommendations set by CIAT's 2012 Regional Plan and the baseline information from the studies listed above. Includes city-specific recommendations for urban development interventions, including proposals for Limonade.	Sep. 2016	Document not yet available (in preparation)
Bidding documents for the engagement of a service contract to support the establishment of a solid waste management Pilot Project in the municipalities of Cap-Haitian, Lemonade and Quartier Morin	The goals of the process is to engage an entity in order to: (i) Support the Cap-Haitian Municipality in the establishment of a solid waste management Pilot service, (ii) Support the AITOM in the establishment of a solid waste disposal service, (iii) Operation of the recycling center and composting attached to the disposal site, (iv) Facilitate a community platform at the pilot sites of the municipalities, (v) Develop support and training tools for municipal and intermunicipal public authorities, and (vi) Integration of the pre-collection informal economy and the recyclers of solid waste.	November 2016 (draft)	Document not yet available (in preparation)

INDEX for completed sector work			
Issues	**Description**	**Date**	**References & hyperlinks to files**
Consultancy on technical design of solid waste management system	The consultancy is going to focus on the following topics: (i) review available information concerning the solid waste management proposal in Cap-Haitian, Lemonade and Quartier Morin, (ii) Review available information concerning the solid waste pilot project promoted by the Cap-Haitian municipality, (iii) Define the geographical area of the solid waste project, (iv) Collect the main indicators of solid waste, including the definition of the level and type of service delivered, infrastructure and equipment needs, institutional framework and proposals for improvement, and (v) Develop proposals for solid waste reduction acc. to local practice.	July - August 2016 (draft)	Document not yet available (in preparation)
Consultancy on the institutional framework of solid waste management at the level of the Cap-Haitian municipality and national level.	The institutional consultant will assess the institutional framework at the national and local level to implement a sustainable solid waste management system in Cap haitien, Quartier Morin and Limonade. The consultant will make recommendations with respect to the institutional strengthening needs for the AITOM and at the city hall level as well	July - August 2016 (draft)	Document not yet available (in preparation)
Consultancy on the social issues and the action lines in order to create partnerships with the Municipalities to improve the solid waste management as a resource	The consultancy is going to focus on the following topics: (i) visit of the main sites of the future solid waste management project and the pilot project, (ii) Identification of the recycling existing activities, (iii) Establishing proposal concerning the creation of partnership with the Cap-Haitian municipality in order to improve solid waste management, (iii) Definition the institutional strengthen for the creation of an environmental department inside the Cap-Haitian municipality.	July - August 2016 (draft)	Document not yet available (in preparation)
Social safeguards	Social Action Plan to assess the impacts and propose actions to integrate them in the solid waste integrated management	September 2016	Document not yet available (in preparation)
Consultancy on the compost market on the Limonade landfill area.	The consultancy is going to focus on the following topics: (i) existing design of recycling and composting facilities attached to the Limonade landfill, (ii) Identification of the main compost consumers, and (iii) Upgrading of the composting facilities according to existing market and compost quality requirements.	July - August 2016 (draft)	Document not yet available (in preparation)
Analysis of project economic viability	Survey data required to analyze economic viability of the program has been obtained from the Mairie de Cap Haitien. Preliminary evaluation to be updated once the engineering studies are completed.	September 2016	Document not yet available (in preparation)

CONFIDENTIAL

[1] The information contained in this Annex is confidential and will not be disclosed. This is in accordance with the "Deliberative Information" exception referred to in paragraph 4.1 (g) of the Access to Information Policy (GN-1831-28) at the Inter-American Development Bank.