

Document of  
**The World Bank**  
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Report No: PAD1478

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED GRANT FROM THE INTERNATIONAL DEVELOPMENT ASSOCIATION  
IN THE AMOUNT OF SDR 35.4 MILLION  
(US\$ 48.4 MILLION EQUIVALENT)

AND A

PROPOSED GRANT FROM THE STRATEGIC CLIMATE FUND  
IN THE AMOUNT OF US\$ 7 MILLION

TO THE

REPUBLIC OF HAITI

FOR A

MUNICIPAL DEVELOPMENT AND URBAN RESILIENCE PROJECT

June 7, 2017

Social, Urban, Rural and Resilience Global Practice  
Latin America And Caribbean Region

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## CURRENCY EQUIVALENTS

(Exchange Rate Effective June 3, 2017)

|                 |       |
|-----------------|-------|
| Currency Unit = | HTG   |
| 67.65 HTG =     | US\$1 |
| US\$0.014 =     | HTG 1 |

## FISCAL YEAR

October 1 – September 30

Regional Vice President: Jorge Familiar Calderon

Country Director: Mary A. Barton-Dock

Senior Global Practice Director: Ede Jorge Ijjasz-Vasquez

Practice Manager: Ming Zhang

Task Team Leader(s): Jonas Ingemann Parby

## ABBREVIATIONS AND ACRONYMS

|          |  |
|----------|--|
| AFD      | French Development Agency ( <i>Agence Française de Développement</i> )   |
| BRL      | BRL ingénierie   |
| CBA      | Cost-Benefit Analysis  |
| CDC      | Communal Development Council ( <i>Conseil de Développement Communal</i> )  |
| CIAT     | Inter-Ministerial Committee for Territorial Development ( <i>Comité Interministériel d'Aménagement du Territoire</i> )         |
| CIF      | Climate Investment Fund  |
| CPF      | Country Partnership Framework  |
| ESMF     | Environmental and Social Management Framework  |
| ESIA     | Environmental and Social Impact Assessment   |
| EU       | European Union   |
| GIS      | Geographic Information System ( <i>Système d'Information Géographique</i> )  |
| GoH      | Government of Haiti  |
| IDB      | Inter-American Development Bank  |
| LOKAL +  | Local Development Project funded by USAID  |
| MLA      | Municipal Local Authority  |
| MDUR     | Municipal Development and Urban Resilience Project   |
| MICT     | Ministry of Interior and Local Authorities ( <i>Ministère de l'Intérieur et des Collectivités Territoriales</i> )              |
| MPCE     | Ministry of Planning and External Cooperation ( <i>Ministère du Plan et de la Coopération Externe</i> )                        |
| MTPTC    | Ministry of Public Works, Transport and Communications ( <i>Ministère des Travaux Publics, Transports et Communications</i> )  |
| MTST     | Mobile Technical Support Team  |
| MTR      | Mid-Term Review  |
| OP       | Operational Policy   |
| PAST     | Cultural Heritage Preservation and Tourism Sector Support Project ( <i>Projet d'Appui au Secteur du Tourisme</i> )             |
| PDC      | Communal Development Plan ( <i>Plan de Développement Communal</i> )  |
| PDO      | Project Development Objective  |
| PINNÉ    | North/North Eastern Intervention Program ( <i>Programme d'Intervention Nord Nord-Est</i> ) of MICT                             |
| PIU      | Project Implementation Unit  |
| PPCR     | Pilot Program for Climate Resilience   |
| PRGRD    | Disaster Risk Management and Reconstruction Project ( <i>Projet de Reconstruction et de Gestion des Risques et Désastres</i> ) |
| PRODEPUR | Urban Community Driven Development Project ( <i>Projet de Développement Participatif Urbain</i> )                              |
| PSDH     | Strategic Development Plan of Haiti ( <i>Plan Stratégique de Développement d'Haïti</i> )                                       |
| PTDT     | Transport and Territorial Development Project ( <i>Projet de Transport et Développement Territorial</i> )                      |
| PU       | Urban Plan ( <i>Plan d'Urbanisme</i> )   |
| RAP      | Resettlement Action Plan   |
| RFB      | Request for Bids   |
| RPF      | Resettlement Policy Framework  |
| RSA      | Regional Safeguards Advisor  |
| SCD      | Systematic Country Diagnostic  |

|         |   |
|---------|---|
| SPCR    | Strategic Program for Climate Resilience  |
| TCC     | Communal Consultation Table ( <i>Table de Concertation Communale</i> )                                  |
| UCE     | Central Implementation Unit (Unité Centrale d'Exécution)  |
| UCP     | Project Coordination Unit ( <i>Unité de Coordination du Projet</i> ) of PRGRD ( <i>Port-au-Prince</i> ) |
| UCP Cap | Project Coordination Unit in Cap-Haïtien ( <i>Unité de Coordination du Projet Cap-Haïtien</i> )         |
| USAID   | US Agency for International Development   |



**BASIC INFORMATION**

|  |              |  |
|--|--------------|--|
| Is this a regionally tagged project?<br>No | Country(ies) | Financing Instrument<br>Investment Project Financing |
|--|--------------|--|

Situations of Urgent Need of Assistance or Capacity Constraints

Financial Intermediaries

Series of Projects

|                              |                             |   |
|------------------------------|-----------------------------|---|
| Approval Date<br>20-Jun-2017 | Closing Date<br>31-Dec-2023 | Environmental Assessment Category<br>B - Partial Assessment |
|------------------------------|-----------------------------|---|

|                              |
|------------------------------|
| Bank/IFC Collaboration<br>No |
|------------------------------|

**Proposed Development Objective(s)**

The Project Development Objective (PDO) is to (i) reduce urban flooding and enhance resilience in the city of Cap-Haïtien; and (ii) improve the capacity of six municipalities in the Cap-Haïtien metropolitan area to plan, finance and deliver basic municipal services and management.

**Components**

| Component Name  | Cost (US\$, millions) |
|---|-----------------------|
| Component 1: Vulnerability Reduction and Climate Resilient Urban Infrastructure     | 34.00                 |
| Component 2: Municipal Investment Support, Capacity Building and Strategic Planning | 15.00                 |
| Component 3: Contingent Emergency Response  | 0.00                  |
| Component 4: Project Management and Implementation Support                          | 6.00                  |



**Organizations**

Borrower : Ministry of Finance

Implementing Agency : Ministry of Interior and Local Authorities  
Ministry of Public Works, Transport and Communications

**PROJECT FINANCING DATA (US\$, Millions)**

|  |                               |   |   |   |   |
|--|-------------------------------|---|---|---|---|
| <input type="checkbox"/> Counterpart Funding | <input type="checkbox"/> IBRD | <input type="checkbox"/> IDA Credit<br><input type="checkbox"/> Crisis Response Window<br><input type="checkbox"/> Regional Projects Window | <input checked="" type="checkbox"/> IDA Grant<br><input type="checkbox"/> Crisis Response Window<br><input type="checkbox"/> Regional Projects Window | <input checked="" type="checkbox"/> Trust Funds | <input type="checkbox"/> Parallel Financing |
|--|-------------------------------|---|---|---|---|

Total Project Cost:  
55.40

Total Financing:  
55.40

Financing Gap:  
0.00

Of Which Bank Financing (IBRD/IDA):  
48.40

**Financing (in US\$, millions)**

| Financing Source             | Amount       |
|------------------------------|--------------|
| Strategic Climate Fund Grant | 7.00         |
| IDA Grant                    | 48.40        |
| <b>Total</b>                 | <b>55.40</b> |

**Expected Disbursements (in US\$, millions)**

| Fiscal Year | 2017 | 2018 | 2019 | 2020 | 2021  | 2022  | 2023  | 2024 |
|-------------|------|------|------|------|-------|-------|-------|------|
| Annual      | 0.00 | 1.50 | 5.50 | 7.00 | 12.00 | 12.00 | 17.40 | 0.00 |



|                   |      |      |      |       |       |       |       |       |
|-------------------|------|------|------|-------|-------|-------|-------|-------|
| <b>Cumulative</b> | 0.00 | 1.50 | 7.00 | 14.00 | 26.00 | 38.00 | 55.40 | 55.40 |
|-------------------|------|------|------|-------|-------|-------|-------|-------|

**INSTITUTIONAL DATA**

**Practice Area (Lead)**

Social, Urban, Rural and Resilience Global Practice

**Contributing Practice Areas**

Climate Change

Macro Economics & Fiscal Management

**Climate Change and Disaster Screening**

This operation has been screened for short and long-term climate change and disaster risks

**Gender Tag**

Does the project plan to undertake any of the following?

a. Analysis to identify Project-relevant gaps between males and females, especially in light of country gaps identified through SCD and CPF

Yes

b. Specific action(s) to address the gender gaps identified in (a) and/or to improve women or men's empowerment

Yes

c. Include Indicators in results framework to monitor outcomes from actions identified in (b)

Yes

**SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)**

| <b>Risk Category</b>  | <b>Rating</b> |
|---|---------------|
| 1. Political and Governance                                     | ● Substantial |
| 2. Macroeconomic  | ● Moderate    |
| 3. Sector Strategies and Policies                               | ● Moderate    |
| 4. Technical Design of Project or Program                       | ● Substantial |
| 5. Institutional Capacity for Implementation and Sustainability | ● High        |



|                           |               |
|---------------------------|---------------|
| 6. Fiduciary              | ● Moderate    |
| 7. Environment and Social | ● Substantial |
| 8. Stakeholders           | ● High        |
| 9. Other                  |               |
| 10. Overall               | ● Substantial |

**COMPLIANCE**

**Policy**

Does the project depart from the CPF in content or in other significant respects?

Yes  No

Does the project require any waivers of Bank policies?

Yes  No

Have these been approved by Bank management?

Yes  No

Is approval for any policy waiver sought from the Board?

Yes  No

**Safeguard Policies Triggered by the Project**

**Yes No**

Environmental Assessment OP/BP 4.01

✓

Natural Habitats OP/BP 4.04

✓

Forests OP/BP 4.36

✓

Pest Management OP 4.09

✓

Physical Cultural Resources OP/BP 4.11

✓

Indigenous Peoples OP/BP 4.10

✓

Involuntary Resettlement OP/BP 4.12

✓

Safety of Dams OP/BP 4.37

✓

Projects on International Waterways OP/BP 7.50

✓

Projects in Disputed Areas OP/BP 7.60

✓





## Legal Covenants

### Sections and Description

**Project Steering Committee:** Maintain at all times during Project implementation, the Project Steering Committee, with composition, responsibilities, resources and mandate satisfactory to the Association, as further detailed in the Operational Manual. Schedule 2, Section I, A.1 (a) for the IDA and SCF-PPCR Grants. (Continuous) (for both IDA and SCF-PPCR Grants).

### Sections and Description

**The Project Coordination Unit (UCP) under the Ministry of Interior and Local Authorities (MICT) :** Ensure that the UCP-MICT shall be responsible for the day-to-day administration, overall planning, coordination, fiduciary (procurement, disbursement, safeguards and financial management), monitoring evaluation reporting and communication of the activities under Part 2 and 4.2 of the Project; as further detailed in the Operational Manual. Schedule 2, Section I, A.3 (b) for the IDA and SCF-PPCR Grants. (Continuous). (for both IDA and SCF-PPCR Grants).

### Sections and Description

**The Central Implementing Unit (UCE) under the Ministry of Public Works, Transport and Communications (MTPTC):** Ensure that the UCE-MTPTC shall be responsible for the day-to-day administration, overall planning, coordination, fiduciary (procurement, disbursement, safeguards and financial management), monitoring evaluation reporting and communication of the activities under Parts 1 and 4.1 of the Project; as further detailed in the Operational Manual. Schedule 2, Section I, A.4 (b) for the IDA and SCF-PPCR Grants. (Continuous). (for both IDA and SCF-PPCR Grants).

### Sections and Description

**Mobile Technical Support Team (MTST):** No later than three months after the Effective Date, hire under terms of reference acceptable to the Association, the MTST, and thereafter maintain, during the implementation of the Project, the MTST with functions, staffing and resources satisfactory to the Association, as further detailed in the Operational Manual. Schedule 2, Section I, A.5 (a) for the IDA and SCF-PPCR Grants. (3 months after effectiveness). (for both IDA and SCF-PPCR Grants).

### Sections and Description

**Technical Project Coordinators:** No later than two months after the Effective Date, appoint under terms of reference and in form and substance satisfactory to the Association, the Technical Coordinators, and thereafter maintain at all times during the implementation of the Project, the Technical Project Coordinators within UCP-MICT and UCE-MTPTC, respectively, with functions, qualifications, and resources satisfactory to the Association, as further detailed in the Operational Manual. Schedule 2, Section I, A.6 (a) for the IDA and SCF-PPCR Grants. (2 months after effectiveness). (for both IDA and SCF-PPCR Grants).

### Sections and Description



The Project's Delegated Implementation Agency (MDOD): No later than three months after the Effective Date, hire under terms of reference and in form and substance satisfactory to the Association, the MDOD, and thereafter operate and maintain, at least during the first three years of the implementation of the Project, the MDOD with functions, staffing and resources satisfactory to the Association, as further detailed in the Operational Manual. Schedule 2, Section I, A.7 (a) for the IDA and SCF-PPCR Grants. (3 months after effectiveness). (for both IDA and SCF-PPCR Grants).

#### Sections and Description

Contingency Emergency Response: In order to ensure the proper implementation of Part 3 of the Project ("CER Part"), the Recipient shall take the following measures:

- (a) prepare and furnish to the Association for its review and approval, an operations manual ("CER Operations Manual") which shall set forth detailed implementation arrangements for the CER Part, including: (i) designation of terms of reference for, and resources to be allocated to, the entity to be responsible for coordinating and implementing the CER Part ("Coordinating Authority"); (ii) specific activities which may be included in the CER Part, Eligible Expenditures required therefore ("Emergency Expenditures"), and any procedures for such inclusion; (iii) financial management arrangements for the CER Part; (iv) procurement methods and procedures for Emergency Expenditures to be financed under the CER Part; (v) documentation required for withdrawals of Emergency Expenditures; (vi) environmental and social safeguard management frameworks for the CER Part, consistent with the Association's policies on the matter; and (vii) any other arrangements necessary to ensure proper coordination and implementation of the CER Part;
- (b) afford the Association a reasonable opportunity to review the proposed CER Operations Manual;
- (c) promptly adopt the CER Operations Manual for the CER Part as shall have been approved by the Association;
- (d) ensure that the CER Part is carried out in accordance with the CER Operations Manual; provided, however, that in the event of any inconsistency between the provisions of the CER Operations Manual and this Agreement, the provisions of this Agreement shall prevail; and
- (e) not amend, suspend, abrogate, repeal or waive any provision of the CER Operations Manual without prior approval by the Association.

Schedule 2, Section I, D.1 for the IDA and SCF-PPCR Grants. (In case of a CER). (for both IDA and SCF-PPCR Grants to harmonize implementation arrangements but the SCF-PPCR Grant will not finance contingency emergency response).



Sections and Description

Anti-corruption: Ensure that the Project is carried out in accordance with the provisions of the Anti-Corruption Guidelines. Schedule 2, Section I, E for the IDA and SCF-PPCR Grants. (Continuous) (for both IDA and SCF-PPCR Grants).

Sections and Description

ESIA and RAP: Prepare, consult, adopt and publish no later than four months after the Effective Date, the Environmental and Social Impact Assessment (ESIA) and the Resettlement Action Plan for Part 1 of the Project, both in form and substance satisfactory to the Association. Schedule 2, Section I, F.1 for the IDA and SCF-PPCR Grants. (4 months after effectiveness). (for both IDA and SCF-PPCR Grants).

Sections and Description

Safeguards: Ensure that the Project is carried out in accordance with the ESMF, the ESIA (once published), the RPF, the RAPs (once published) and any site-specific EMP to be developed and approved in accordance with the ESMF or the ESIA, all in a manner acceptable to the Association. The Recipient shall not amend, suspend or abrogate any of the provisions of the ESMF, the ESIA, the RPF or any EMP or RAP without the prior agreement of the Association. Schedule 2, Section I, F.2 for the IDA and SCF-PPCR Grants. (Continuous). (for both IDA and SCF-PPCR Grants).

Sections and Description

Implementation arrangements: Maintain at all times during Project implementation, MICT, MTPTC and the Targeted Municipalities, with responsibilities, resources and mandate satisfactory to the Association, as further detailed in the Operational Manual. Schedule 2, Section I, A.2 (c) for the IDA and SCF-PPCR Grants. (Continuous). (for both IDA and SCF-PPCR Grants).

Sections and Description

Operational Manual: Carry out the Project in accordance with a manual (the Operational Manual), satisfactory in form and substance to the Association, Schedule 2, Section I, B for the IDA and SCF-PPCR Grants (continuous) (for both IDA and SCF-PPCR Grants).

**Conditions**

Type

Effectiveness

Description

Adoption of Operational Manual: The Recipient has prepared and adopted, in form and substance satisfactory to the Association, the Operational Manual. Article IV, 4.01 (a) for the IDA Grant and Article IV, 4.01 (c) for the SCF-PPCR Grant.



|               |  |
|---------------|--|
| Type          | Description  |
| Effectiveness | Effectiveness of SCF-PPCR Grant or IDA Grant: The Grant Agreement or the Financing agreement have been executed and delivered and all conditions precedent to their effectiveness have been fulfilled. Article IV, 4.01 (b) for the IDA Grant and Article IV, 4.01 (d) for the SCF-PPCR Grant.   |
| Type          | Description  |
| Disbursement  | <p>Disbursement condition for CER: Under Category (3), for Emergency Expenditures, unless and until the Association is satisfied, and notified the Recipient of its satisfaction, that all of the following conditions have been met in respect of said activities:</p> <p>(i) the Recipient has determined that an Eligible Emergency has occurred, has furnished to the Association a request to include said activities in the CER Part in order to respond to said Eligible Emergency, and the Association has agreed with such determination, accepted said request and notified the Recipient thereof;</p> <p>(ii) the Recipient has prepared and disclosed all safeguards instruments required for said activities, and the Recipient has implemented any actions which are required to be taken under said instruments, all in accordance with the provisions of Section I.D. 3 (b) of this Schedule 2;</p> <p>(iii) the Recipient’s Coordinating Authority has adequate staff and resources, in accordance with the provisions of Section I.D.2 of this Schedule 2, for the purposes of said activities; and</p> <p>(iv) the Recipient has adopted the CER Operations Manual in form, substance and manner acceptable to the Association and the provisions of the CER Operations Manual remain - or have been updated in accordance with the provisions of Section I.D.1 (c) of this Schedule 2 so as to be appropriate for the inclusion and implementation of said activities under the CER Part.</p> <p>Schedule 2, Section IV.B.1 (Only applies to the IDA Grant Agreement since the SCF-PPCR Grant does not finance CER).</p> |

**PROJECT TEAM**

**Bank Staff**

| Name                 | Role                         | Specialization | Unit  |
|----------------------|------------------------------|----------------|-------|
| Jonas Ingemann Parby | Team Leader(ADM Responsible) | Urban          | GSU10 |



|                                |   |                          |       |
|--------------------------------|---|--------------------------|-------|
| Rose Caline Desruisseaux-Cadet | Procurement Specialist(ADM Responsible) | Procurement              | GGO04 |
| Aboubacar Magassouba           | Procurement Specialist                  | Procurement              | GGO04 |
| Fabienne Mroczka               | Financial Management Specialist         | Financial Management     | GGO22 |
| Adrianus Verweij               | Team Member                             | Hydrology                | GSU10 |
| Asli Gurkan                    | Safeguards Specialist                   | Social Development       | GSU04 |
| Claudia Ruth Soto Orozco       | Team Member                             | Disaster Risk Management | GSU10 |
| Faly Diallo                    | Team Member                             | Disbursements            | WFALA |
| Felipe Jacome                  | Team Member                             | Social Safeguards        | GSU04 |
| Isabella Micali Drossos        | Counsel                                 | Legal                    | LEGLE |
| Jean-Claude Balcet             | Team Member                             | Municipal Development    | GSU10 |
| Joan Dessaint Fomi             | Team Member                             | Urban Development        | GSU10 |
| Laurent Corroyer               | Team Member                             | Urban Resilience         | GSU10 |
| Lydie Madjou                   | Team Member                             | Financial Management     | GGO22 |
| Nicolas Kotschoubey            | Safeguards Specialist                   | Environment              | GEN04 |
| Richener Noel                  | Team Member                             | Urban Development        | GSU10 |
| Sara Gey Feria                 | Team Member                             | Operations               | GSU10 |
| Sergio Dell'anna               | Team Member                             | Disaster Risk Management | GSU10 |
| Vincent Roquet                 | Safeguards Specialist                   | Social Development       | GSUGL |
| Yoro Sidibe                    | Team Member                             | Economist                | GWA07 |

**Extended Team**

| <b>Name</b> | <b>Title</b> | <b>Organization</b> | <b>Location</b> |
|-------------|--------------|---------------------|-----------------|
|-------------|--------------|---------------------|-----------------|



HAITI  
MUNICIPAL DEVELOPMENT AND URBAN RESILIENCE PROJECT

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## I. STRATEGIC CONTEXT

### A. Country Context

1. **Haiti has experienced advances in poverty reduction in recent years, however the country continues to be affected by institutional fragility, high vulnerability, and setbacks in economic recovery.** Between 2000 and 2012, the portion of Haiti's population living in extreme poverty declined from 31 percent to 23.8 percent. However, the country has not yet fully recovered from the devastating 2010 earthquake<sup>1</sup>, and continues to be affected by political and institutional fragility<sup>2</sup>. On October 4, 2016, Hurricane Matthew (a category 4 hurricane) struck Haiti's south-west coast, affecting about 20 percent of the country's population – over 2 million people –, causing over 500 deaths, displacing 175,000 people, and resulting in estimated damages and losses equivalent to around 32 percent of GDP<sup>3</sup>.

2. **Haiti's economic recovery will not be sustained or its growth potential realized without improving the country's resilience to natural hazards.** With 96 percent of its population living at risk, Haiti is considered one of the world's most exposed countries to multiple natural hazards, including hurricanes, floods, erosion, droughts, earthquakes, and landslides. Haiti ranked as the third most affected country to climate-related events from 1996 to 2015. Average damages and losses associated with hydro-meteorological events alone are estimated at an amount equivalent to almost two percent of GDP annually (1976-2012).

3. **Haiti's achievements in poverty reduction have happened at the same time as rapid urbanization, which has further increased the levels of disaster risk.** It is estimated that almost six of ten Haitians now live in urban areas. A World Bank poverty assessment (2014) demonstrated that urban areas have performed better, relative to rural areas<sup>4</sup>, with more non-agricultural employment opportunities, larger private transfers, more access to critical goods and services, as well as narrowing inequality. Given the concentration of people and assets, however, Haiti's urban areas are especially exposed to natural hazards: 27 of 140 municipalities are situated in flood-prone areas; two-thirds of urban municipalities have been affected by hurricanes, as have more than 70 percent of Haiti's urban population, both with medium to high impact.

4. **The urbanization process in the capital Port-au-Prince is rapid and largely unplanned. This, combined with the capital's relative concentration of economic activities and governance systems, has**

---

<sup>1</sup> The earthquake caused an estimated US\$7.8 billion in damages and losses (120 percent of the GDP) and close to 220,000 deaths. The recent Matthew hurricane damaged larger parts of the western part of the country and destroyed infrastructure and housing up to a value of 20 percent of GDP.

<sup>2</sup> Recent presidential elections have taken place and a new president was formally inaugurated in February 2017, after a protracted period of political transition and interim government since late 2015.

<sup>3</sup> Damages and losses estimated by the Rapid Damage and Loss Assessment of October 2016 (22% of GDP equivalent) were revised upward in the February 2017 PDNA conducted by Government, which set damages and losses at 32% of GDP equivalent).

<sup>4</sup> Extreme poverty in urban areas has declined from almost 22 percent to 11 percent while in rural areas the proportion of extreme poor has stagnated at 37 percent in the period 2001 to 2012.





**created substantial challenges in services provision, exposure to natural hazards, and increased vulnerability in urban centers.** The increased pressure and demand for basic services and land in growing cities will need to be addressed to maintain the current gains associated with urbanization. The pace and ad hoc nature of urbanization has also highlighted the importance of enabling municipalities to govern more effectively, including better management of local responsibilities, such as land management, revenue generation and provision of basic services.

5. **In this context, the Haitian Government views disaster risk management, decentralization, and improved spatial management as key development priorities.** These policies and strategies can leverage the positive impacts of urbanization and reduce the underlying risks of economic damages resulting from natural disasters in areas of large population concentration. The Government's national development strategy, the Strategic Development Plan of Haiti (*Plan Stratégique de Développement d'Haïti* – PSDH, 2012), points to the importance of investing in regional development, including in secondary cities, with the aim of achieving more balanced economic growth,<sup>5</sup> and in improved land use planning to reduce vulnerability while shifting more responsibility towards municipalities. In light of the above, providing support to Cap-Haïtien, the second largest city in the country, is in line with Government strategies.

6. **Situations of urgent need and capacity constraints.** The proposed Municipal Development and Urban Resilience (MDUR) Project meets the criteria of OP 10.00 Paragraph 12 (Projects in Situations of Urgent Need of Assistance or Capacity Constraints) and was processed through condensed procedures because stringent capacity limitations were encountered during project preparation. These capacity limitations included (a) the limitations on the decision making ability of the interim government during the 2016 calendar year; (b) capacity limitations brought on by the response to Hurricane Matthew, which caused a national disaster and emergency, and (c) delays and capacity constraints imposed by flooding in the city during project preparation. In light of these capacity, in keeping with the policy, the completion of safeguard instruments for Component 1 have been deferred to implementation. A dated covenant requires these instruments to be completed within four months of project effectiveness.

7. **Policy exception.** In light of Haiti's high level of debt distress following Hurricane Matthew, this project document seeks the approval of Executive Directors to provide SDR35.4 million (US\$48.4 million equivalent) for the proposed Haiti Municipal Development and Urban Resilience Project in the form of a grant rather than on Haiti's current IDA terms. Haiti is a yellow light country, eligible for a mix of grants and credits in FY17. However, the post-disaster Joint Debt Sustainability Analysis (DSA)<sup>6</sup> for Haiti, circulated to Executive Directors on November 16, 2016, finds the country at high risk of debt distress following Hurricane Matthew. The provision of financing in the form of all grants for the proposed operation is appropriate, as the provision of credits would further heighten Haiti's risk of debt distress at a time of urgent need. On the basis of the November 2016 DSA, in FY18, Haiti will become eligible again for 100 percent grant financing from IDA.

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<sup>5</sup> The strategy includes specific attention to the three regions, North, South and Central. The North remains of particular importance given its strategic location with international access and economic potential, e.g. in agriculture, tourism, and manufacturing.

<sup>6</sup> Haiti: Joint Bank-Fund Debt Sustainability Analysis - November 7, 2016 (IDA/SecM2016-0205).



## B. Sectoral and Institutional Context

8. **Cap-Haïtien is the second largest city in Haiti, with approximately 274,000 inhabitants and an annual growth rate of more than five percent.**<sup>7</sup> The city is the capital of the North Department and its broader metropolitan region, defined by the area of influence of the first ring of satellite municipal local authorities (MLAs) that surround Cap-Haïtien. In addition to Cap-Haïtien, the target municipalities in the proposed MDUR Project include five MLAs (Limonade, Quartier Morin, Milot, Acul de Nord, and Plaine du Nord) with populations ranging from around 27,000 to about 56,000 people. The total population of the six municipalities is around 486,000 (refer to Annex 1 for details on the target municipalities and Annex 7 for a map of the project intervention area).

9. **Cap-Haïtien is of strategic importance for the development of the country due to its economic growth potential.** The city is the second-largest commercial center in the country and strategically located in the center of the Caribbean basin, with its port, the country's second largest, providing direct access the United States and other markets throughout the region. The Cap-Haïtien economy mainly relies on the services sector with a high potential in tourism development as it hosts world-class cultural and natural heritage assets. The metropolitan area's economic growth sectors include light industry, agriculture and livestock production, small-scale distilleries, port and maritime services, education, tourism,<sup>8</sup> forestry, and mining operations.<sup>9</sup> Industrial development opportunities have notably emerged in the North and North-East Departments through the establishment of The Caracol Industrial Park (*Parc Industriel de Caracol - CIP*), which already created close to 6,000 jobs and may create up to 25,000 new jobs in the near term. Cap-Haïtien therefore is increasingly becoming a critical growth pole in the North, and can play a key role in tackling poverty reduction in the North region.

*An urgent need to improve urban resilience*

10. **Managing and mitigating risks associated with natural hazards, especially floods, is a major challenge for Cap-Haïtien.** The *Haut du Cap* River passes through the Cap-Haïtien metropolitan area and causes frequent flooding. Three major floods affected the city in the last decade (2012, 2014 and 2016) causing deaths and severe damage to homes and infrastructure. Large populations, mostly poor, are living in flood-prone areas and are therefore more likely to incur damages after a disaster. The poor are the most severely affected as they tend to settle in informal settlements in high risk areas in ravines, along river banks, and around water basins.

11. **The impacts of climate change, particularly with regard to flooding and sea level rise, represent an additional risk in the Northern Region and its cities.** The Caribbean is among the most vulnerable areas in the world with regard to climate change and climate extremes. Climate change patterns are expected to accentuate higher peak flows in rivers and backflow from the sea, and the

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<sup>7</sup> National Statistical Institute (IHSI) estimates for 2015

<sup>8</sup> Notable historic assets are the National History Park-Citadelle, Sans Souci, and Ramiers (PNH-CSSR), a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage site; colonial architecture in the historic center of Cap-Haïtien; and the tourism port of Labadie, where Royal Caribbean Cruise Line (RCCL) ships call weekly.

<sup>9</sup> Cap-Haïtien - Ouanaminthe Development Corridor Regional Comprehensive Plan, AIA 2012



mean sea level is estimated to be 30–90 centimeters (cm) higher by 2100 than it is today,<sup>10</sup> close to the highest end of the range predicted by the International Panel on Climate Change (IPCC). The future intensity and frequency of hurricanes are still a subject of research, but according to the US Climate Change Science Program, increases in hurricane rainfall and wind speeds are likely.<sup>11</sup>

*Planning and land use: Managing increasing urbanization in high risk areas*

12. **The lack of planning and land use management capacity in the Cap-Haïtien metropolitan region is exacerbating disaster risks.** The Cap-Haïtien metropolitan region is growing spatially toward the east corridor, principally for economic reasons. Several socio-economic growth poles have developed along the Cap-Ouanaminthe corridor in the agronomic and industrial sectors. A number of complementary infrastructure investments (such as the upgrading the Cap-Haïtien international airport), and housing, tourism and education investments benefiting the North and North-East Departments have been carried out by the Government and development partners in recent years and new investments are being prepared.<sup>12</sup> Development (especially around the PIC) will significantly increase the metropolitan area's population, thereby expanding the demand for land located in less vulnerable areas and for basic services in the surrounding municipalities.

13. **Peripheral municipalities are critical for Cap-Haïtien's urban expansion and relieving pressure on settlements in risky areas.** Located at sea-level at the mouth of Haut du Cap River surrounded by hills, Cap-Haïtien has very limited land for safe housing within the administrative boundary of the city. People have been settling in high-risk zones where land is more affordable, such as in urban watersheds or ravines, slopes, coastal areas, and river banks. It is expected that Cap-Haïtien's population will continue to grow rapidly, requiring the population to settle the satellite towns around Cap-Haïtien as areas for settlement. These cities are small municipalities but constitute an urban system and will play a key role in the future spatial development of the area of Cap-Haïtien.

*Promoting financial and technical support for better urban management and infrastructure and basic service provision in municipal areas.*

14. **The Government's new policy commitments and the election of mayors in all MLAs across the country in 2016 provides new opportunities for strengthening local governance and service delivery.** The Strategic Development Plan of Haiti (PSDH) identifies the development of regional growth poles to counterbalance the dominance of Port-au-Prince as one of the national development priorities. Other government initiatives include programs to strengthen staffing at the MLA level and expand revenue mobilization, particularly in urban MLAs. The project's municipal development activities build on flagship initiatives from the Ministry of Interior and Local Authorities (MICT) in the Nord and Nord-Est

<sup>10</sup> Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report. Recent NASA studies show that the mean sea level has risen by 8 cm since 1992.

<sup>11</sup> With simulations showing that for each 1°C increase in sea surface temperatures, core rainfall may increase by 6-17% and surface wind speeds of the strongest hurricanes will increase between 1-8% with associated increases in storm surge levels (source Climate Change Knowledge Portal, World Bank 2017).

<sup>12</sup> These include road upgrading and maintenance, sustainable watersheds projects, and multiple initiatives including water, energy, and solid waste management.



Departments<sup>13</sup>. The newly elected government has expressed commitment to the proposed project. In April 2016, municipal elections led to the inauguration of publically elected mayors in all of Haiti's MLAs for the first time in a decade. This provides a new opportunity for deepening the capacity of the government to deliver services at the local level and enhances the opportunity for strengthening the social contract and accountability between the population and its leaders.

15. **Strategies of spatial decentralization and capacity building for MLAs have been hampered by the lack of investment budgets available for the MLAs and the irregular support provided.** Many municipalities struggle to pay operating costs, collect limited own source revenue and largely depend on limited transfers from national government to finance public services and infrastructure improvements (see Annex 1 for details on the target municipalities). As a result, financing available for capital investments is insufficient to provide the level of service required. These constraints are further exacerbated by the insufficient number of qualified technical staff at the municipal level. While some municipalities have local development and financing plans, these plans are not linked to their spatial and physical characteristics, and planning suffer from significant gaps in data.

16. **The Cap-Haïtien metropolitan region is underserved in key areas of basic urban services, holding back opportunity to harvest potential agglomeration benefits and trigger the region's economic development and increasing the risks for the urban poor and vulnerable.** The region reflects the national trend of decline in access to services in urban areas: access to water in urban areas has dropped from 91 to 65 percent at the national level in the last 20 years, and almost 74 percent of the population live in informal settlements. In the North department specifically, approximately three quarters of the urban households rely on charcoal for energy needs, and only 24 percent of people have improved sanitation.

17. Based on the above, the proposed project will address three priorities for the greater metropolitan region of Cap-Haïtien: (i) Strengthening urban resilience by reducing risks associated with flooding and climate change related effects; (ii) Strengthening municipal capacities for better management of land use and urban expansion; and (iii) Enhancing local government capacity for provision of infrastructure and basic services.

### C. Higher Level Objectives to which the Project Contributes

18. **Promoting Shared Prosperity and Ending Extreme Poverty.** The proposed project will contribute to the Bank's twin goals of ending extreme poverty<sup>14</sup> and promoting shared prosperity. It will target poverty eradication by creating better living conditions, services and employment opportunities in a department where the poverty incidence is almost 69 percent and extreme poverty is above 30 percent.<sup>15</sup> The project will address shared prosperity by contributing to the growth of Cap-Haïtien,

<sup>13</sup> The *Programme d'Intervention Nord /Nord-Est* (PINNE) focusing on strengthening skills of municipality staff, and the *Appui à la Gouvernance et à l'Investissement Local en Haïti* (AGIL), which provides line of financing for municipalities for delivery.

<sup>14</sup> According to the Poverty Assessment, in the Nord Department, 34 percent of urban population and 66 percent of rural population are considered poor.

<sup>15</sup> Poverty Assessment, WB. The poverty line has values of 81.7 Haitian gourdes per day or US\$2.41 and extreme poverty is at 4.16 Haitian gourdes or US\$1.23 per day. This implies that the city of Cap-Haïtien alone has a population of 188,790 living below



allowing the Government to better distribute resources, services and income across the country. The Project is also consistent with the 2017 Regional Strategy for Latin America and the Caribbean, which aims to strengthen infrastructure services with a focus on building resilient infrastructure and enhancing urban services.

19. **Relationship to SCD and CPF.** The Project is aligned with the World Bank Group's 2015 Systematic Country Diagnostic (SCD) for Haiti and the World Bank Group's Haiti Country Partnership Framework (CPF) for FY2016-2019: The project includes interventions that (i) strengthen the social contract, including capacity building and the provision of services, (ii) reduce vulnerability and build resilience, particularly in urban areas, and (iii) focuses on the development of regional growth poles to counterbalance the dominance of Port-au-Prince, as well as building resilience and reducing vulnerability. This regional focus is also in line with national development priorities as outlined in the Strategic Development Plan of Haiti (PSDH). The Project is also complementing existing World Bank financed projects in promoting territorial development and improving connectivity, in particular between Port-au-Prince and the North, in promoting the cultural heritage management and tourism development around the significant cultural resources in Haiti's Northern region<sup>16</sup>.

20. **Reducing Vulnerability to Climate Change.** The proposed project is one of the projects identified under the Strategic Program for Climate Resilience (SPCR), presented by the GoH to the Pilot Program for Climate Resilience (PPCR) Sub-Committee and approved in May 2013. Under the SPCR, this project was originally envisioned in the Gulf of La Gonâve area. However, at the time of project design, the Government of Haiti readjusted the geographical focus for this project to the Cap-Haïtien's metropolitan area in response to evolving development priorities, which focused on supporting decentralization and the development of regional growth poles to counterbalance the dominance of Port-au-Prince.

21. In line with PPCR criteria, the project is expected to contribute to a better understanding of climate risks in urban areas. The aim is to strategically focus interventions and build synergies with ongoing activities to maximize (i) impact for the poorest and most vulnerable populations and (ii) replication potential (especially given the pilot nature of the PPCR)<sup>17</sup>. This project explicitly aims to improve climate resilience through risk management and risk reduction, and is expected to have an estimated 89.1 percent of climate co-benefits.

## II. PROJECT DEVELOPMENT OBJECTIVES

### A. PDO

The Project Development Objective (PDO) is to (i) reduce urban flooding and enhance resilience in the city of Cap-

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the poverty line on less than US\$2.41 per day.

<sup>16</sup> The US\$50 million Center and Artibonite Regional Development Project (BCA) (P133352) - supporting development in the neighboring Artibonite Region - and the US\$45 million Preserving Cultural Heritage and Promoting Tourism Project (PAST) (P144614).

<sup>17</sup> Although the geographic focus has been adjusted to address current priorities from the Government, the scope of the project remains the same.



Haitien; and (ii) improve the capacity of six municipalities in the Cap-Haitien metropolitan area to plan, finance and deliver basic municipal services and management.

### B. Project Beneficiaries

22. The direct and indirect project beneficiaries are the population of the six target municipalities (totaling approximately 490,000 people). Direct beneficiaries will be (i) approximately 58,000 inhabitants of Cap-Haitien (or about 25 percent of the municipality's population) who will benefit from improved disaster risk reduction mitigation works, and (ii) the urban population of Limonade, Quartier Morin, Acul du Nord, Plaine du Nord, and Milot (approximately 60,000 people) who will benefit from enhanced delivery of municipal services and infrastructure totaling around 118,000 direct beneficiaries. Indirect beneficiaries will include the other urban population in Cap-Haitien and the rural population in the six municipalities benefitting from improved services, totaling approximately 370,000 people.

23. The project will benefit a population composed of 51 percent of women.<sup>18</sup> The priorities of women will be reflected in the identification and implementation of the project's flood risk reduction activities and municipal investments. At least 51 percent of beneficiaries will be women.

### C. PDO-Level Results Indicators

24. The achievement of the PDO will be monitored through the following indicators:
- (a) Number of people benefiting from reduced flood risk
  - (b) Number of people provided with improved urban living conditions
  - (c) Improved capacity to undertake integrated development planning in the territory as measured by the delivery, approval and application of key planning tools in municipal planning and budgeting by the six municipalities targeted by the project.
  - (d) Percentage of beneficiaries who report satisfaction with project interventions
  - (e) Number of total project beneficiaries (gender disaggregated) (core)

## III. PROJECT DESCRIPTION

### A. Project Components

25. The project will contribute to sustainable and resilient development of the metropolitan region of Cap-Haitien through a combination of (i) investments in flood risk reduction to address the high risk of flooding and improve the livelihoods of affected households; (ii) building the capacity of municipalities for better and more resilient urban management and enhanced accountability; and (iii) improved access to basic infrastructure to promote livability, resilience to disasters and climate change, and local economic development.

#### **Component 1: Vulnerability Reduction and Climate Resilient Urban Infrastructure (US\$34M, including**

<sup>18</sup> According to official projections from the IHSI.



**US\$6M from the Climate Investment Fund (CIF).**

26. This component aims to build resilience and reduce the effects of climate change by investing in flood mitigation infrastructure through an integrated watershed management approach that will reduce recurrent flooding in Cap-Haïtien. The investments will focus on the historical and commercial center where all the main roads intersect.

**Sub-Component 1.1. Integrated Management of the Urban Ravines (US\$3.0M)**

27. This sub-component will support risk mitigation interventions targeting two ravines of Cap-Haïtien, which have been identified as key priorities, through: (i) emergency works at critical and pre-identified points, such as slope stabilization; (ii) sediment cleaning to restore the full flow capacity of the ravines; (iii) structural measures to control sedimentation, such as dissipaters to reduce stream velocity and to minimize runoff; and (iv) non-structural erosion reduction measures, such as, inter alia, community awareness campaign (in particular with a focus on management of construction sites), as well as green infrastructure and small agro-business activities.

**Sub-Component 1.2. Investments in Flood Mitigation Management along the *Rivière Haut du Cap* and addressing the challenges of *Bassin Rhodo* (US\$31.0M)**

28. Sub-component 1.2 will support investments in flood mitigation management along the *Rivière Haut du Cap*, addressing the challenges of *Bassin Rhodo* in order to protect the population living in the affected flood plains from recurring flooding by: (i) carrying out a detailed study to quantify the most efficient outlet width and depth for the dredging works taking into account climate change aspects and additional options to reduce the amount and the speed of rainwater runoff; (ii) stabilizing the downstream outlet embankments and some initial dredging activities in the river and in the estuary with proper handling and treatment of the removed materials; (iii) financing any household resettlement costs associated with the flood risk reduction works; and (iv) carrying out training activities and capacity building initiatives to manage the flooding and the basin over the long term.

**Component 2: Municipal Investment Support, Capacity Building and Strategic Planning (US\$15M, including US\$1M from CIF)**

29. Component 2 aims to support the targeted municipalities to enable them to plan, finance, and manage resilient infrastructure, deliver local services in urban areas through a combination of investment support and capacity building initiatives, and ensure that local plans are developed and implemented in accordance with a coherent strategic metropolitan development framework and the risk profile of each targeted municipality.

**Sub-Component 2.1 Urban Development Grant for Improvement of Local Infrastructure and Service Delivery (US\$10M)**

30. Sub-component 2.1 will provide financial support through subproject grants to improve local infrastructure and service delivery, in particular, inter alia, basic and resilient urban services including sanitation and drainage, rehabilitation of markets, upgrading of roads, rehabilitation of public squares





and streets. The sub-projects eligible for funding under the proposed project concern investments in the sectors listed as priorities in the Communal Development Plans (PDCs), Urban Plans (PUs) and/or tri-annual investment plan, and/or as agreed among different municipalities in the case of inter-municipal sub-projects. The specific location of sub-projects is still unknown, but will be identified during the feasibility studies. Depending on their performance and capacity improvement during the project, and subject to strict condition for capacity demonstrated capacity to manage resources, MLAs may over time take up responsibility for implementation of sub projects under Component 2. The details for the performance assessment to be undertaken at midterm review to assess MLA capacity will be spelled out in the Operational Manual.

**Sub-Component 2.2: Institutional strengthening and capacity building for municipalities (US\$3M).**

31. Sub-component 2.2 will strengthen the targeted municipalities' institutional capacity for administration (including financial management, procurement, disbursement, monitoring, evaluation and communication), investment implementation and management (including participatory approaches, investment screening to ensure resilience of infrastructure, planning processes and safeguard follow-up), communication and information-sharing, and mobilization of local revenues. All aspects of the sub-component will be based on agreed capacity-building plans for technical staff and for managers in the targeted municipalities as well as the financing of operating costs, rehabilitation of buildings and the acquisition of office equipment.

**Sub-Component 2.3: Support to Strengthen Spatial Management and Land Use Planning (US\$2M)**

32. Sub-component 2.3 will support targeted municipalities to improve land use planning, land management tools and spatial management (including urban plans and local development plans) taking into account disaster risk and climate change while expanding and implementing strategic planning for the greater Cap-Haïtien metropolitan area through the creation of an inter-municipal platform for the regional coordination and dialogue with partners.

**Component 3: Contingent Emergency Response (US\$0 M)**

33. The proposed project includes a Contingent Emergency Response (CER) component to respond rapidly at the Government's request in the event of an eligible disaster, including climate-related events. This Component will finance the implementation of emergency infrastructure reconstruction, rehabilitation and associated studies (Emergency Response Activities). Resources will be allocated to this component as needed by the project during implementation. Disbursements will be made against a pre-established list of critical goods or the procurement of goods, works, and consultant services required to support the immediate response and recovery needs of the GoH. A separate Operations Manual for this Component will be prepared by the GoH, and will provide detailed guidelines and instructions on how to trigger the CER component and use funds. PPCR funding will not be used for emergency response.

**Component 4: Project Management and Implementation Support (US\$6 M)**

34. This Component will finance the costs associated with strengthening and developing the institutional capacity for project management, coordination, implementation, and monitoring and





evaluation, as well as costs associated with supporting the project implementing agencies. Component 4 is divided into two sub-components. *Sub-component 4.1* will finance the strengthening of the capacity of the *Unité Centrale d'Exécution* (UCE) of the Ministry of Public Works, Transport and Communications (MTPTC) for management coordination, implementation, monitoring, and evaluation of all civil works aspects of the project, including safeguards, and resilience to disasters and climate change. *Sub-component 4.2* will finance the strengthening of *Unité de Coordination de Projets* (UCP) of the Ministry of Interior and Local Authorities (MICT) capacity with regard to: (i) overall coordination of the project including, consolidation of financial and progress reports; and (ii) management, coordination, implementation, monitoring and evaluation of the municipal strengthening and the investment planning capacities elements of the project. Component 4 will also finance the project communication strategy and outreach efforts, which will inform all components, including engagement with citizens, and ensuring broad stakeholder awareness on project interventions.

## B. Project Cost and Financing

### Lending instrument

35. The proposed lending instrument is an Investment Project Financing (IPF) consisting of a US\$48.4 million IDA grant and US\$7 million Recipient Executed Grant awarded to Haiti by the Climate Investment Fund (CIF) as part of the Pilot Program for Climate Resilience (PPCR), a multi-donor program designed to respond to the urgent need to increase investments in climate risk and resilience measures for highly vulnerable countries<sup>19</sup>.

**Table 1: Project cost and financing**

| Components  | Project Costs | IDA Grant   | CIF      | %           |
|---|---------------|-------------|----------|-------------|
|   | US\$ millions |             |          |             |
| Component 1: Vulnerability Reduction and Climate Resilient Urban Infrastructure     | 34            | 28          | 6        | 61.4%       |
| Component 2: Municipal Investment Support, Capacity Building and Strategic Planning | 15            | 14          | 1        | 27%         |
| Component 3: Contingent Emergency Response  | 0             | 0           | -        | 0%          |
| Component 4: Project Management and Implementation Support                          | 6             | 6           | 0        | 11.5%       |
| Unallocated   | 0.4           | 0.4         |          | 0.7%        |
| <b>Total</b>  | <b>55.4</b>   | <b>48.4</b> | <b>7</b> | <b>100%</b> |

<sup>19</sup> The PPCR for the Caribbean is being administered and implemented jointly by the Inter-American Development Bank (IDB) and the World Bank (WB) in a multisectoral and integrated manner, involving public, private and civil society entities.



### C. Lessons Learned and Reflected in the Project Design

36. The project incorporates lessons from Haiti's SCD that strengthening state capacity and governance contributes to the sustainability of many social programs and the recent progress in improving access to some basic services, as well as greater mobilization of own fiscal revenue and improved efficiency in public expenditure management. The project also takes into account lessons from the Independent Evaluation Group's (IEG) 2008 study on municipal development projects, which observes that support for strengthening municipal finance most often yielded successful results. With regard to the flood risk reduction component, project design incorporates the Bank's global knowledge on flood risk management, and local knowledge gained from previous and ongoing Disaster Risk Management (DRM) operations in Haiti. In addition, relevant global experiences (e.g. Nepal, Bangladesh, Sri Lanka, and Mozambique), as well as that of other similar projects in Haiti (in particular CDD projects) have been taken into account and integrated into the project design as follows:

- (a) Applying well-tested project design features: The project has been designed to simplify implementation by the municipalities, with flexibility to adapt to changes in the environment and provide municipalities with more responsibilities as their capacity increases.
- (b) Learning by doing: The project ties investments with technical assistance to local governments so that municipalities learn by doing and thereby develop their management capacity to maintain and sustain development interventions. The project incentivizes performance by allocating funds in the second phase taking into account the first phase performance of each municipality.
- (c) Communication, participation and citizen engagement: The project emphasizes communication, participation, and consultation with the local population to ensure their informed ownership and project sustainability.
- (d) Technically-sound phased approaches: Project flood risk reduction measures are based on sophisticated hydraulic modeling of the flood basin that determine prioritization and phasing.
- (e) Relocation and reconstruction standards: The project adopts the resettlement process and technical standards based on experiences gained through large-scale housing reconstruction after the 2010 earthquake under the Bank-financed Urban Community Driven Development Project (PRODEPUR) and the Neighborhood Housing Reconstruction Project (PREKAD) that benefited about 14,000 families with housing reconstruction works and relocation from camps.

## IV. IMPLEMENTATION

### A. Institutional and Implementation Arrangements

37. Overall project implementation will be the responsibility of the Ministry of Interior and Local Authorities (MICT). The *Unité de Coordination de Projets* (UCP) under MICT will be responsible for overall project implementation and reporting, including consolidation of fiduciary and progress reports submitted to UCP by UCE. Activities under Component 1 will be implemented by the *Unité Centrale d'Exécution* (UCE) under the Ministry of Public Works, Transport and Communications (MTPTC). UCE will coordinate closely with the municipality of Cap-Haïtien. Activities under Component 2 will be implemented by UCP and the MLAs under MICT guidance and oversight. UCE and UCP will have a joint



project office in Cap-Haïtien to facilitate effective coordination and supervision of the project, and enable collaboration with other projects in the area. Both UCP and UCE will be required to strengthen their technical capacity to implement the municipal development component, including the recruitment of dedicated project staff based in Cap-Haïtien. UCE will be responsible for safeguards oversight and implementation. In addition, UCP and UCE staff will receive targeted training, as needed, in relation to the climate change aspects of the project to ensure sound implementation and compliance with PPCR requirements (including M&E and reporting).<sup>20</sup> Both UCP and UCE are currently implementing the Disaster Risk Management and Transport Project financed by the World Bank, and their existing procurement, disbursement, and financial arrangements and capacities are considered satisfactory.

38. A Mobile Technical Support Team (MTST) will provide support to the MLAs on project design, prioritization, management and supervision, and will also deliver capacity support in real time in other areas based on MLA capacity building plans. The MTST will consist of experts in urban planning, engineering, financial management, revenue mobilization and procurement. The team will be based in Cap-Haïtien and will rotate among the MLAs to provide direct technical support, initially at least for the first three years of the project. This support will facilitate the work of the key staff of the MLA and provide opportunity for the staff to enhance their skills in learning by doing. The MLAs will provide guidance and oversight for project implementation, including selection of sub-projects, and M&E, through the relevant decision making structures of the municipalities<sup>21</sup>. Depending on their performance and capacity improvement, MLAs may take up responsibility for implementation of sub projects under Component 2.

## **B. Results Monitoring and Evaluation**

39. A Project Steering Committee will be maintained at all times during implementation and will be responsible for providing general orientation, consultation, oversight and coordination between MICT, MTPTC, targeted municipalities, UCP-MICT, UCE-MTPTC, the technical project coordinators and other stakeholders implementing the Project, all in accordance with the Operational Manual.

40. The UCP and UCE, through their dedicated M&E staff at the level of the office in Cap-Haïtien, will be in charge of monitoring all indicators and providing all relevant data. UCP will have the overall responsibility for monitoring project performance indicators and report to the Bank semi-annually. Baseline conditions will be established before the start of the project interventions, and will be followed up with assessments at the midterm review and at project closing to evaluate project results. In addition, technical and value for money audits will be carried out periodically to verify the technical quality of infrastructure. Beneficiary surveys will be carried out at project start, midterm and before project close to track citizen's satisfaction with urban management and project interventions. Information generated through these M&E interventions will be shared widely among project stakeholders at all levels.

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<sup>20</sup> Both UCP and UCE are currently implementing Disaster Risk Management and Transport project financed by the World Bank, and their existing procurement, disbursement, and financial arrangements and capacities are considered satisfactory.

<sup>21</sup> I.e. Communal Consultation Table (TCC) and Communal Development Councils (CDC), chaired by the Mayor and with representation of the various areas within the municipality.



41. In addition, UCE and UCP's monitoring and evaluation staff will liaise regularly with the PPCR focal point of the GoH, the Inter-Ministerial Committee for Territorial Development (CIAT), and report progress on SPCR implementation and share lessons learned.<sup>22</sup> UCP and UCE will be responsible for reporting on PPCR core indicators throughout the duration of the project, and their M&E staff will participate in activities related to PPCR monitoring and reporting<sup>23</sup>, as well as knowledge sharing and dissemination among other PPCR countries. Detailed responsibilities related to PPCR Monitoring and Reporting and knowledge management will be clearly spelled out in the Project Operations Manual.

### C. Sustainability

42. *Service delivery and asset sustainability:* The project will work closely with MTPCE, MICT and the MLAs to set up viable mechanisms for recurrent financing (including through direct support to MLAs to increase their own-source revenue) to enable sustainable resources for O&M. The project also provides training support to MLA key staff, including for budget management and technical training on O&M. The focus on building MLA capacity for land use planning and spatial development is expected to generate sustained positive impacts from the re-organization of the canals and the expansion areas.

43. In addition, the numerous municipal development and local governance strengthening initiatives supported by the MICT in the North (and in other parts of the country) have demonstrated the commitment of the Government to strengthen the capacities of MLA in the long term. Implementation arrangements using the UCP-MICT and close technical assistance and capacity building provided to MLAs are expected to consolidate the MICT's mandate and encourage ownership of the project by all stakeholders involved and, ultimately, increase the sustainability of results.

44. *Institutional sustainability.* The project will also provide targeted assistance to MLAs in key areas of infrastructure delivery, ranging from procurement of works, to contract management and works supervision. MLAs will also be supported to build their management capacity and ensure better financial management and revenue collection.

### D. Role of Partners

45. **The project is a part of a set of ongoing and upcoming substantial interventions in Cap-Haïtien and in the wider metropolitan region to help the city exploit its potential.** USAID is working on rehabilitating the port of Cap-Haïtien, Spain and the Inter-American Development Bank (IDB) are focusing on expanding and improving water and sanitation. IDB is expanding the industrial park in Caracol, and providing targeted support to resolve the solid waste management challenges in the city, in collaboration with French Development Agency (*Agence Française de Développement*) (AFD). The United Nations Educational, Scientific and Cultural Organization (UNESCO) and the World Bank are working together to support cultural heritage preservation and tourism development in Cap Haïtien.

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<sup>22</sup> This component, which is fully funded by IDA resources will be responsible for all matters related to PPCR Monitoring and Reporting and knowledge management.

<sup>23</sup> Including workshops and preparing the annual country report for submission to the PPCR Steering Committee.



One of the IDB-financed projects will address solid waste management issues, whereas the Bank-financed project will address challenges in terms of spatial management, flooding, urban planning and provision of basic services. The collaboration among the projects will provide an integrated development solution for the metropolitan area of Cap-Haïtien.

## V. KEY RISKS

### A. Institutional and Implementation Arrangements

46. Overall project implementation will be the responsibility of the Ministry of Interior and Local Authorities (MICT). The *Unité de Coordination de Projets* (UCP) under MICT will be responsible for overall project implementation and reporting, including consolidation of fiduciary and progress reports submitted to UCP by UCE. Activities under Component 1 will be implemented by the *Unité Centrale d'Exécution* (UCE) under the Ministry of Public Works, Transport and Communications (MTPTC). UCE will coordinate closely with the municipality of Cap-Haïtien. Activities under Component 2 will be implemented by UCP and the MLAs under MICT guidance and oversight. UCE and UCP will have a joint project office in Cap-Haïtien to facilitate effective coordination and supervision of the project, and enable collaboration with other projects in the area. Both UCP and UCE will be required to strengthen their technical capacity to implement the municipal development component, including the recruitment of dedicated project staff based in Cap-Haïtien. UCE will be responsible for safeguards oversight and implementation. In addition, UCP and UCE staff will receive targeted training, as needed, in relation to the climate change aspects of the project to ensure sound implementation and compliance with PPCR requirements (including M&E and reporting).<sup>24</sup> Both UCP and UCE are currently implementing the Disaster Risk Management and Transport Project financed by the World Bank, and their existing procurement, disbursement, and financial arrangements and capacities are considered satisfactory.

47. A Mobile Technical Support Team (MTST) will provide support to the MLAs on project design, prioritization, management and supervision, and will also deliver capacity support in real time in other areas based on MLA capacity building plans. The MTST will consist of experts in urban planning, engineering, financial management, revenue mobilization and procurement. The team will be based in Cap-Haïtien and will rotate among the MLAs to provide direct technical support, initially at least for the first three years of the project. This support will facilitate the work of the key staff of the MLA and provide opportunity for the staff to enhance their skills in learning by doing. The MLAs will provide guidance and oversight for project implementation, including selection of sub-projects, and M&E, through the relevant decision making structures of the municipalities<sup>25</sup>. Depending on their performance and capacity improvement, MLAs may take up responsibility for implementation of sub projects under Component 2.

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<sup>24</sup> Both UCP and UCE are currently implementing Disaster Risk Management and Transport project financed by the World Bank, and their existing procurement, disbursement, and financial arrangements and capacities are considered satisfactory.

<sup>25</sup> I.e. Communal Consultation Table (TCC) and Communal Development Councils (CDC), chaired by the Mayor and with representation of the various areas within the municipality.



## B. Results Monitoring and Evaluation

48. A Project Steering Committee will be maintained at all times during implementation and will be responsible for providing general orientation, consultation, oversight and coordination between MICT, MTPTC, targeted municipalities, UCP-MICT, UCE-MTPTC, the technical project coordinators and other stakeholders implementing the Project, all in accordance with the Operational Manual.

49. The UCP and UCE, through their dedicated M&E staff at the level of the office in Cap-Haïtien, will be in charge of monitoring all indicators and providing all relevant data. UCP will have the overall responsibility for monitoring project performance indicators and report to the Bank semi-annually. Baseline conditions will be established before the start of the project interventions, and will be followed up with assessments at the midterm review and at project closing to evaluate project results. In addition, technical and value for money audits will be carried out periodically to verify the technical quality of infrastructure. Beneficiary surveys will be carried out at project start, midterm and before project close to track citizen's satisfaction with urban management and project interventions. Information generated through these M&E interventions will be shared widely among project stakeholders at all levels.

50. In addition, UCE and UCP's monitoring and evaluation staff will liaise regularly with the PPCR focal point of the GoH, the Inter-Ministerial Committee for Territorial Development (CIAT), and report progress on SPCR implementation and share lessons learned.<sup>26</sup> UCP and UCE will be responsible for reporting on PPCR core indicators throughout the duration of the project, and their M&E staff will participate in activities related to PPCR monitoring and reporting<sup>27</sup>, as well as knowledge sharing and dissemination among other PPCR countries. Detailed responsibilities related to PPCR Monitoring and Reporting and knowledge management will be clearly spelled out in the Project Operations Manual.

## C. Sustainability

51. *Service delivery and asset sustainability:* The project will work closely with MTPCE, MICT and the MLAs to set up viable mechanisms for recurrent financing (including through direct support to MLAs to increase their own-source revenue) to enable sustainable resources for O&M. The project also provides training support to MLA key staff, including for budget management and technical training on O&M. The focus on building MLA capacity for land use planning and spatial development is expected to generate sustained positive impacts from the re-organization of the canals and the expansion areas.

52. In addition, the numerous municipal development and local governance strengthening initiatives supported by the MICT in the North (and in other parts of the country) have demonstrated the commitment of the Government to strengthen the capacities of MLA in the long term. Implementation arrangements using the UCP-MICT and close technical assistance and capacity building

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<sup>26</sup> This component, which is fully funded by IDA resources will be responsible for all matters related to PPCR Monitoring and Reporting and knowledge management.

<sup>27</sup> Including workshops and preparing the annual country report for submission to the PPCR Steering Committee.



provided to MLAs are expected to consolidate the MICT's mandate and encourage ownership of the project by all stakeholders involved and, ultimately, increase the sustainability of results.

53. *Institutional sustainability.* The project will also provide targeted assistance to MLAs in key areas of infrastructure delivery, ranging from procurement of works, to contract management and works supervision. MLAs will also be supported to build their management capacity and ensure better financial management and revenue collection.

#### D. Role of Partners

54. **The project is a part of a set of ongoing and upcoming substantial interventions in Cap-Haïtien and in the wider metropolitan region to help the city exploit its potential.** USAID is working on rehabilitating the port of Cap-Haïtien, Spain and the Inter-American Development Bank (IDB) are focusing on expanding and improving water and sanitation. IDB is expanding the industrial park in Caracol, and providing targeted support to resolve the solid waste management challenges in the city, in collaboration with French Development Agency (*Agence Française de Développement*) (AFD). The United Nations Educational, Scientific and Cultural Organization (UNESCO) and the World Bank are working together to support cultural heritage preservation and tourism development in Cap Haïtien. One of the IDB-financed projects will address solid waste management issues, whereas the Bank-financed project will address challenges in terms of spatial management, flooding, urban planning and provision of basic services. The collaboration among the projects will provide an integrated development solution for the metropolitan area of Cap-Haïtien.

## VI. APPRAISAL SUMMARY

### A. Economic and Financial (if applicable) Analysis

53. The main expected benefits attributable to the project include: (i) Reduction in flood damage to properties and infrastructure as a result of enhanced flood protection; (ii) Protection of lives from floods; (iii) Improved business environment as a result of cleaner settlement around the MLAs; (iv) Benefits due to reduced incidence of water-borne diseases including cholera, dengue, zika and chikungunya; (v) Enhanced urban connectivity as a result of the rehabilitation of selected roads; (vi) Enhanced efficiency gains due to improved institutional support for urban planning and management; and (vii) Potential increase in tourism.

54. A framework approach is used for investments under Component 1.1, while the other components, representing more than 90 percent of project total costs, are analyzed through Cost Benefit Analysis (CBA). The CBA quantifies the tangible benefits from reducing flood vulnerability, through the avoided damage cost method. These benefits are measured as the additional cost of flood damage that will occur without the project intervention. The tangible socio-economic benefits comprise avoided damage to properties and avoided economic losses. The net monetary benefits expected from flood sub-projects are derived from the difference between the incremental benefits and the incremental costs of two scenarios: "with" project and "without" project. The "with" project scenario





considers the planned investments and the associated integrated flood management plan. The “without” project scenario is based on historical flood data and the outputs of existing hydrological models. The project will generate an Economic Rate of Return of 11.4 percent, and, at a discount rate of 5 percent, a Net Present Value of over US\$ 34 million; sensitivity analyses confirm that these results are robust (refer to Annex 5 for detailed information).

## B. Technical

55. The proposed flood risk reduction investments complement the non-structural measures, such as early warning system, preparedness and emergency planning, and institutional capacity strengthening, which are already being undertaken by other projects.<sup>28</sup> These interventions build on the results from a series of technical and hydrological studies.<sup>29</sup> The overall expected impact of the intervention is a significant reduction of the flood depth in a large area around the *Rivière Haut du Cap* and reduction of flood occurrence in the two targeted ravines. In particular, a series of hydraulic scenarios have been modelled and the best option was chosen based on financial effectiveness. The selected scenario corresponds to a phased strategy. According to the available financing under the MDUR, the first phase would consist of: (i) investing downstream in the outlet that flows into the sea through “no-regret” climate measures for the first 500 meters (from the new bridge at the mouth of the river until the bridge RN3); and (ii) dredging the river upstream to about the outlet of *Bassin Rhodo* (about 1.8 kilometers (km) upstream from the sea). Additional financing beyond the current MDUR project will be required for follow-up phases for areas further upstream (see Annex 1 for a detailed description of the different phases).

56. Investments in municipal infrastructure will be designed based on technology and methods that are well known in Haiti and from specific Bank projects in the country (PRODEPUR, PREKAD, PAST, etc.). Urban investments will be designed to correspond to local conditions and, when possible, will make use of labor-intensive methods accessible to local small and medium-sized enterprises (SMEs). Works will be overseen by dedicated supervision consultants, the technical mobile team (MTST), MLA staff, and end-users or beneficiary representatives.

## C. Financial Management

57. The financial responsibilities of the project will be managed using capacity established under the on-going Disaster Risk Management and Reconstruction Project. Activities under Component 1 will be implemented by the *Unité Centrale d’Exécution* (UCE) under the MTPTC. The fiduciary aspects of Component 2 will be implemented by the *Unité de Coordination de Projets* (UCP) under the MICT. UCP

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<sup>28</sup> These include the Strengthening Hydrometeorological Services Project (P148259) and the Disaster Risk Management and Reconstruction Project (DRMRP P126346), as well as other partners working in preparedness in Cap-Haïtien such as UNDP.

<sup>29</sup> The studies include: a detailed flood risk assessment of Cap-Haïtien (April 2015), the Urban Development and Climate Change Study in the Northern Development Corridor by the Inter-American Development Bank (February 2015), and a detailed hydrological study of the river *Haut du Cap* and *Bassin Rhodo* (November 2016) that includes 2D modeling to better understand the river hydraulic dynamic.





will be responsible for all financial management. The UCP is expected to utilize a delegated implementing agency (MDOD) to facilitate sub-project delivery, as per experience in other projects in Haiti. The Project Unit in Cap-Haïtien (UCP Cap) will be in charge of all supervision, monitoring and safeguard procedures of sub-project implementation. The financial management (FM) assessment found the current capacity acceptable at both Project Implementation Units (PIUs). The Mid-Term Review (MTR) of Phase 1 will evaluate the MLAs' progress in handling financial management responsibilities. Following the MTR, and on the basis of the assessment, financial management responsibilities under Component 2 may be transferred to eligible MLAs. The Project Operation Manual would be updated to reflect the changes in project management responsibilities.

#### **D. Procurement**

58. A procurement assessment was carried out to evaluate the adequacy of procurement arrangements under the proposed Project. UCP and the MLAs under the MICT will implement Component 2 and will also coordinate and monitor procurement activities at the departmental level. UCE, under the MTPTC and a beneficiary of MLAs, will implement Component 1. Both UCP and UCE are well-qualified to manage procurement for the proposed Project as they are both presently implementing the Bank-financed Disaster Risk Management and Reconstruction Project; they also have procurement experience in projects financed by other donors. Procurement staff of the PIUs will receive intensive training under the Bank's new Procurement Framework for policy, regulations and guidance. Simplified procurement procedures (to be specified in the Project Operation Manual) will be applied to sub-projects under Component 2. The MTR of Phase 1 will evaluate the progress of MLA capacities to handle procurement responsibilities. Following the MTR, and on the basis of an assessment of the performance and procurement capacity improvements of the MLAs, procurement responsibilities under Component 2 may be transferred to eligible MLAs. The Project Operation Manual would be updated to reflect the changes in the project management responsibilities.

59. The main procurement risks are related: (i) weak capacity of the implementing agency in procurement and management of large contracts; (ii) high risk and weak control environment, as Haiti's ability to manage public resources is undermined by a volatile and sensitive environment, instability and outdated practices; (iii) limited local market, with few regional/international bidders with the required experience, may result in reduced competition and higher bid prices; (iv) delays in implementation due to the overall conditions in Haiti; and (v) delays in implementation from the Bidders side and time/cost over-runs. These risks will be mitigated through the detailed actions outlined in the Project Procurement Strategy Development (PPSD).

#### **E. Social (including Safeguards)**

60. **Social Safeguards:** The project is rated Category "B". The Bank's social safeguards policy triggered is OP 4.12 on Involuntary Resettlement. The rating is based on the fact that while the resettlement involved is significant for Haiti, it is still relatively manageable: The sites and the social context are well known; resettlement and community upgrading interventions associated with Component 1 are supported by the local authorities and communities; and the Bank has previous



experience with resettlement in Haiti. The impacts have been assessed to be manageable, provided the final RAP (which will include detailed safeguards management actions) is meticulously implemented, with close oversight from the PIU and an international supervision firm, and with support from international experts.

61. Component 1 (Vulnerability Reduction and Climate Resilient Urban Infrastructure) involves significant social impacts related to the involuntary resettlement of about 300 slum-dwelling households. Their resettlement is required in anticipation of the widening of the *Bassin Rhodo* outlet to the sea, and the loss of economic livelihoods linked to dozens of small informal sector businesses located downstream of *Bassin Rhodo* (workshops, eateries, etc.). An international consulting firm has been recruited to prepare a Resettlement Action Plan in compliance with national law and Bank safeguards policies. A first round of local public consultations on the RAP was carried out by the Government in February 2017 in collaboration with the City of Cap-Haïtien. Three resettlement options in the *Bassin Rhodo* outlet were presented to the public: (i) in situ resettlement on the left bank of the canal (*Quartier La Fossette*); (ii) relocation of affected households close to the airport that constitutes the priority extension zone for the municipality (7 km away); or (iii) relocation of affected households close to the new Industrial Park area in Limonade (about 20 km away). National and local authorities have expressed support for each of these options and have identified an additional in situ resettlement site occupied by an abandoned CARE warehouse on the right bank of the *Bassin Rhodo* outlet (*Quartier SHADA 1*). A socio-economic census of affected households and informal businesses was carried out in March 2017. Under the RAP, displaced households would benefit from rental subsidies for a period of at least two years before resettling in housing units built by the project. Displaced businesses would be fully compensated for their losses. Preliminary cost estimates for RAP implementation are on the order of US\$16million, including US\$12 million for fully-serviced replacement housing, US\$3 million for compensation, livelihood restoration and resettlement assistance, and US\$1 million for the recruitment of a qualified resettlement implementation entity. These costs will be fully covered by the Project.

62. Component 1 will also include the excavation of debris and waste from the two main ravines that channel flood waters down from the *mornes* (hills) surrounding Cap-Haïtien (*Ravines Belle-Hôtesse* and *Zetriye*), thereby improving the urban environment and minimizing flood-related risks in the downtown areas. This will require minor resettlement (of a few structures) that will be managed through the preparation of a separate Abbreviated Resettlement Action Plan (ARAP).

63. Pursuant to OP 10.00 paragraph 12, the completion of the safeguards requirements for Component 1 is deferred until the implementation phase due to capacity constraints compounded by unforeseen delays (political transition, technical complexity, flooding in the Cap-Haïtien area during preparation, shocks in the aftermath of Hurricane Matthew demanding Government response), which did not allow for completion of the Component 1 RAP and ARAP prior to appraisal. The proposed Safeguards Action Plan is adequate to ensure proper environmental and social management.

64. Component 2 (Investment Support and Capacity Building) involves planned support of small-scale public works. Though these works remain to be defined (e.g., upgrading of local market facilities, improvement of local roads, drainage, etc.), they are expected to have limited social and resettlement impact. Impacts that do occur will be managed on the basis of a Resettlement Policy Framework (RPF) prepared by the Government in compliance with national law and Bank safeguard policy requirements.



The final RPF and EMSF were disclosed on the World Bank’s website on May 9, 2017 and in-country on May 17, 2017. As part of the capacity building component(s), training will be provided to the PIU on implementation of the RPF for Component 2. The RPF will be included as part of the Operations Manual.

65. **Citizen Engagement:** The project will proactively pursue a citizen engagement approach. The project will: (i) engage a pro-active communication strategy that will explain the benefits of the project for various communities and municipalities to local governments, beneficiaries and the public at large; (ii) apply clear and transparent criteria for the selection of sub-projects; (iii) develop robust information request and grievance redress measures for project activities as a whole; and (iv) support the engagement of project beneficiaries in the preparation, implementation and monitoring of all municipal activities under the project.

66. **Gender.** The project incorporates gender considerations at all levels in terms of committing to at least 51 percent women beneficiaries. In general, women are the most likely to be affected by floods (disproportionately affecting the informal sector and informal neighborhoods), but their concerns are least likely to be addressed by decision-makers. The project will ensure that participatory activities and consultative processes are held in venues and formats that are suitable and possible for women to attend. The project will pay close attention to women’s and girls’ priorities in the identification and funding of small-scale municipal investments, voiding or minimizing resettlement impacts to women-headed households, and promote the recruitment of female staff in social mobilization. The project will promote women’s involvement in all consultations, and identification and monitoring of actions related to resettlement and restoration of livelihoods, including separate discussions with women when needed.

## F. Environment (including Safeguards)

67. *Environmental Safeguards:* The project is rated Category “B”. The Bank environmental safeguard policies triggered are: OP 4.01 Environmental Assessment; OP 4.04 Natural Habitats; OP 4.11 Physical Cultural Resources; and OP 4.36 Forests. The rating is based on the fact that the environmental impacts of the intervention are substantial but not sensitive, diverse, or unprecedented, and not irreversible. They have been assessed to be manageable, provided appropriate mitigation measures that will be included in the final Environmental and Social Impact Assessment (ESIA) are meticulously implemented, with close oversight from the PIU and an international supervision firm, and with support from international experts.

68. Component 1 will have a number of positive environmental impacts. These include flood reduction, improved tidal movement and water quality in the *Bassin Rhodo*, and improved soil, flora and fauna conditions on the *mornes* surrounding Cap-Haïtien through soil stabilization activities. However, significant negative impacts have also been identified along, upstream and downstream of the *Bassin Rhodo* outlet. These will require careful management and mitigation. They include: (i) impacts associated with demolition and construction of houses and establishment of a sediment sorting and storage platform; (ii) impacts of dredging and driving of sheet-piles; (iii) impacts related to the production, selective sorting, maritime transport and disposal at sea of large amounts of sediment of acceptable quality; and (iv) impacts related to the production, selective sorting, transport by land and disposal in a landfill or a temporary storage site of small amounts of sediment of lesser quality.



69. Cleaning and dredging operations associated with removal of materials accumulated in the *Rivière Haut du Cap* will be carefully designed from removal to disposal stage so as to avoid illegal land filling/reclamation practices that have been observed in the downstream part of river of the estuarine water basin of *Bassin Rhodo*. The design will ensure proper handling and treatment of the removed materials. Dredging activities will take place in a few different areas including estuarine areas, areas with low energy flows, as well as torrential flows (ravines), in order to reduce wet sediment transportation and streamlining the dredging works.

70. An international consulting firm has been recruited to prepare an Environmental and Social Impact Assessment in compliance with national law and Bank safeguard policies. A first round of local public consultations on the ESIA was carried out in February 2017 in collaboration with the MLA of Cap-Haïtien, during which the scope of potential impacts and the ESIA preparation process were discussed. Sediment management will be complex, but will be carried out according to good international practice. Well-tested technical solutions exist and are routinely used internationally, but are new to Haiti. The ESIA builds on studies of bathymetric profiles, hydrology, river morphology, dredging, erosion, socio-economic and solid waste characterizations, as well as sediment dispersal modelling, in order to inform the optimal environmental outcome for the project.

71. As discussed under the social safeguards, pursuant to OP 10.00 paragraph 12, and due to capacity constraints, the completion of the safeguards requirements for Component 1 is deferred until the implementation phase.

72. Component 2 will most likely result in limited environmental, health and safety (EHS) impacts through its planned support to small-scale public works that remain to be defined (e.g., upgrading local market facilities, improving local roads, drainage, developing open spaces, etc.). The city of Cap-Haïtien and the surrounding municipalities are over 300 years old, and contain Pre-Columbian, French colonial and Haitian historical and cultural monuments and buildings. Excavations and works to be carried out under the project will take special care to avoid damage to these sites, and the technical specifications for works will include “chance find procedures” to be undertaken in the event that culturally significant materials are discovered.

73. Project environmental impacts will be managed on the basis of an Environmental and Social Management Framework (ESMF) prepared by the Government in compliance with national laws and Bank safeguard policies. The ESMF was discussed with local stakeholders in public consultations in February-March 2017. The final ESMF was disclosed on the World Bank’s website on May 9, 2017 and in-country on May 17, 2017. As part of the capacity building component(s), training in the implementation of the ESMF for Component 2 will be provided to the PIU. The ESMF will be included as part of the Operations Manual.

## **G. Other Safeguard Policies (if applicable)**

No other safeguard policies are triggered for the project.



## **H. World Bank Grievance Redress**

Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit <http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service>. For information on how to submit complaints to the World Bank Inspection Panel, please visit [www.inspectionpanel.org](http://www.inspectionpanel.org).



**VII. RESULTS FRAMEWORK AND MONITORING**

**Results Framework**

**COUNTRY : Haiti**

**Municipal Development and Urban Resilience Project**

**Project Development Objectives**

The Project Development Objective (PDO) is to (i) reduce urban flooding and enhance resilience in the city of Cap-Haïtien; and (ii) improve the capacity of six municipalities in the Cap-Haïtien metropolitan area to plan, finance and deliver basic municipal services and management.

**Project Development Objective Indicators**

| Indicator Name   | Core | Unit of Measure | Baseline | End Target | Frequency   | Data Source/Methodology  | Responsibility for Data Collection |
|--|------|-----------------|----------|------------|-------------|--|------------------------------------|
| <b>Name:</b> People provided with improved urban living conditions |      | Number          | 0.00     | 328000.00  | Semi-annual | IHSI - will be measured on annual basis with progress reports from communes and MICT and MTPTC | MICT/MTPTC                         |

**Description:** The target value includes: (i) 269,036 urban inhabitants of the municipality of Cap-Haitian who will benefit from project interventions under Component 1 and 2; (ii) 60,000 urban inhabitants of Limonade, Quartier Morin, Acul du Nord, Plaine du Nord (five of the project’s six target municipalities - total population is 211,659) who will benefit from enhanced delivery of municipal services and infrastructure; and improved planning and urban management under Component 2. This represents in total about 328,000 people.

This indicator relates to PPCR Core Indicator A1.3.: Numbers of people supported by the PPCR to cope with effects of climate change



| Indicator Name   | Core | Unit of Measure | Baseline | End Target | Frequency   | Data Source/Methodology                                     | Responsibility for Data Collection |
|--|------|-----------------|----------|------------|-------------|---|------------------------------------|
| <b>Name:</b> People benefiting from reduced flood risk in Cap-Haitien  |      | Number          | 0.00     | 58000.00   | Annual      | Hydraulic modeling results from MTPTC and satellite imagery | MICT/MTPTC                         |
| <p><b>Description:</b> This includes beneficiaries of the flood risk reduction activities to be undertaken around the Bassin Rhodo in Cap-Haitien under Component 1.</p> <p>The interventions of Reduced Phase 1 will reduce the number of people flooded for the 50 year return period by 17,560, while for 41,114 people the flood depths will be reduced significantly.</p> <p>This indicator relates to PPCR Core Indicator A1.3.: Numbers of people supported by the PPCR to cope with effects of climate change</p>                                  |      |                 |          |            |             |   |                                    |
| <b>Name:</b> Direct project beneficiaries  |      | Number          | 0.00     | 118000.00  | Semi-annual | MICT and MTPTC reports                                      | UCP/MICT                           |
| Female beneficiaries   |      | Percentage      | 51.00    | 51.00      | Semi-annual | MICT and MTPTC reports                                      | UCP/MICT                           |
| <p><b>Description:</b> Direct beneficiaries are people or groups who directly derive benefits from an intervention (i.e., children who benefit from an immunization program; families that have a new piped water connection). Please note that this indicator requires supplemental information. Supplemental Value: Female beneficiaries (percentage). Based on the assessment and definition of direct project beneficiaries, specify what proportion of the direct project beneficiaries are female. This indicator is calculated as a percentage.</p> |      |                 |          |            |             |   |                                    |
| <b>Name:</b> Improved capacity to undertake integrated resilient development planning in the territory   |      | Number          | 0.00     | 6.00       | Annually    | MICT reports and MPCE reports                               | UCP/MICT                           |



| Indicator Name  | Core | Unit of Measure | Baseline | End Target | Frequency   | Data Source/Methodology  | Responsibility for Data Collection |
|---|------|-----------------|----------|------------|---|--|------------------------------------|
| <p><b>Description:</b> Measured as Commune Development Plan (PDC) applied as tool in MLA planning and budgeting in the 6 MLAs - Number of development plans delivered and/or updated, and approved by the CDC (council).</p> <p>Contributes to PPCR Indicators A2.1 (Core): Degree of integration of climate change in national, including sector planning.</p>   |      |                 |          |            |   |  |                                    |
| <b>Name:</b> Percentage of Beneficiaries who report satisfaction with project interventions   |      | Percentage      | 0.00     | 80.00      | Twice during project implementation (once at mid-term and once at the end of the project) | Baseline to be established in the beginning of the Project by MICT/MTPTC | MICT/MTPTC                         |
| <p><b>Description:</b> Measured on the basis of the Citizens Perception Survey that will be undertaken at the beginning of the project to establish the baseline. This will be followed up by an additional survey at MTR and end of project. (Component 1 and 2).</p> <p>Contributes to PPCR Core Indicator B1: Extent to which vulnerable households, communities, businesses and public sector services use improved PPCR supported tools, instruments, strategies, activities to respond to Climate Variability and Climate Change.</p> |      |                 |          |            |   |  |                                    |

**Intermediate Results Indicators**

| Indicator Name   | Core | Unit of Measure | Baseline | End Target | Frequency | Data Source/Methodology                                      | Responsibility for Data Collection |
|--|------|-----------------|----------|------------|-----------|--|------------------------------------|
| <b>Name:</b> Increase in own source revenue collection of the 6 communes targeted by |      | Percentage      | 0.00     | 105.00     | Annual    | Municipalities - semiannual reporting with support from MTST | UC/MICT                            |





| Indicator Name  | Core | Unit of Measure | Baseline | End Target | Frequency | Data Source/Methodology                                       | Responsibility for Data Collection |
|---|------|-----------------|----------|------------|-----------|---|------------------------------------|
| the project   |      |                 |          |            |           |   |                                    |
| Increase in own source revenue collection in other communes |      | Percentage      | 0.00     | 204.00     | Annual    | Municipalities - semiannual reporting with support from MTST. | UCP/MICT                           |
| Increase in own source revenue collection in Cap-Haïtien    |      | Percentage      | 0.00     | 102.00     | Annual    | Municipalities - semiannual reporting with support from MTST  | UC/MICT                            |

**Description:** The increase in the level OSR of each commune, as measured in the per capita income figure, as per the annual financial reports of each commune and of the DGI. (Component 2).

All amounts are expressed in Haitian Gourdes

**Cap-Haitian**

Baseline: 39,666,540

Annual increase in absolute values

- y1 42,000,000
- y2 45,000,000
- y3 50,000,000
- y4 65,000,000
- y5 75,000,000
- y6 80,000,000

**Other communes**

Baseline: 1,315,914

Annual increase in absolute values



| Indicator Name   | Core | Unit of Measure | Baseline | End Target | Frequency | Data Source/Methodology                                      | Responsibility for Data Collection |
|--|------|-----------------|----------|------------|-----------|--|------------------------------------|
| y1 1,500,000<br>y2 2,000,000<br>y3 2,500,000<br>y4 3,000,000<br>y5 3,500,000<br>y6 4,000,000<br><br>Cap-Haitian + other communes<br>Total baseline: 40,982,454<br>Total annual increase in absolute values<br>y1 43,500,000<br>y2 47,000,000<br>y3 52,500,000<br>y4 68,000,000<br>y5 78,500,000<br>y6 84,000,000<br><br>Total percentage increase for Cap-Haitian + other communes<br><br>y1 6.14%<br>y2 14.68%<br>y3 28.10%<br>y4 65.92%<br>y5 91.55%<br>y6 104.97% |      |                 |          |            |           |  |                                    |
| <b>Name:</b> Number of municipalities submitting financial reports to MICT no later than one month after the start of the Fiscal   |      | Number          | 0.00     | 6.00       | Annual    | Municipalities – semiannual reporting with support from MTST | UCP/MICT                           |



| Indicator Name   | Core | Unit of Measure | Baseline | End Target | Frequency   | Data Source/Methodology                                      | Responsibility for Data Collection |
|--|------|-----------------|----------|------------|-------------|--|------------------------------------|
| Description: Number of Communes submitting financial reports to MICT on the use of the FGDC and on the use of funds received under MDUR. (Component 2)   |      |                 |          |            |             |  |                                    |
| <b>Name:</b> Number of actions implemented in urban development plans by each municipality   |      | Number          | 0.00     | 12.00      | Annual      | Municipalities – semiannual reporting with support from MTST | UCP/MICT                           |
| Description: Based on actions identified in the urban development plans prepared within the General Strategic Plan of the Region (PSMA) (Component 2).   |      |                 |          |            |             |  |                                    |
| <b>Name:</b> Roads rehabilitated, Non-rural  |      | Kilometers      | 0.00     | 2.00       | Semi-annual | Municipalities and MTPTC                                     | UCE/MTPTC                          |
| Description: Kilometers of all non-rural roads reopened to motorized traffic, rehabilitated, or upgraded under the project. Non-rural roads are roads functionally classified in various countries as Trunk or Primary, Secondary or Link roads, or sometimes Tertiary roads. Typically, non-rural roads connect urban centers/towns/settlements of more than 5,000 inhabitants to each other or to higher classes of road, market towns and urban centers. Urban roads are included in non-rural roads. |      |                 |          |            |             |  |                                    |
| <b>Name:</b> Cities with improved livability, sustainability, and/or management  |      | Number          | 0.00     | 6.00       | Annual      | Municipalities   | MICT                               |
| Description: Bank Core Sector Indicator (Component 1 and 2).<br>Contributes to PPCR Core Indicator B5: Quality of and extent to which climate responsive instruments/ investment models are developed and tested   |      |                 |          |            |             |  |                                    |



| Indicator Name  | Core | Unit of Measure | Baseline | End Target | Frequency   | Data Source/Methodology  | Responsibility for Data Collection |
|---|------|-----------------|----------|------------|-------------|--|------------------------------------|
| <b>Name:</b> Reduction in the flooded areas of Cap-Haitien  |      | Hectare(Ha)     | 0.00     | 201.00     | Annual      | Hydraulic modeling results from MTPTC and satellite imagery and Progress Report on the basis of completion of works. | MTPCT                              |
| <p><b>Description:</b> This indicator will measure the reduction in the areas that are flooded in the commune of Cap Haitien as a result of the project intervention (Component 1). The interventions of Reduced Phase 1 will reduce the flooded area for the 50 year return period by 75 ha, while flood depths will decrease significantly over an area of 201.5 ha.</p> <p>Contributes to PPCR Indicators B5: Quality of and extent to which climate responsive instruments/ investment models are developed and tested.</p> |      |                 |          |            |             |  |                                    |
| <b>Name:</b> Successful implementation of sub-projects financed under MDUR  |      | Percentage      | 0.00     | 100.00     | Semi-annual | MICT reports   | UCP/MICT                           |
| <p><b>Description:</b> Measured as - % of sub project completed on time according to approved plans (timing, technical specifications, etc)</p> <p>Contributes to PPCR Core Indicator B5: Quality of and extent to which climate responsive instruments/ investment models are developed and tested</p>   |      |                 |          |            |             |  |                                    |
| <b>Name:</b> Improved capacity to manage and mitigate flood risk through integrated   |      | Yes/No          | N        | Y          | Annual      | MTPTC reports  | UCE/MTPTC                          |



| Indicator Name  | Core | Unit of Measure | Baseline | End Target | Frequency | Data Source/Methodology                                      | Responsibility for Data Collection |
|---|------|-----------------|----------|------------|-----------|--|------------------------------------|
| planning  |      |                 |          |            |           |  |                                    |
| <p><b>Description:</b> Measured as: delivery of a comprehensive flood risk assessment and management plan - Hydrology plan prepared, consulted upon with all stakeholders, delivered and approved by the relevant local and national authorities<br/> Contributes to PPCR Core indicator A2.1: Degree of integration of climate change in national, including sector planning</p> |      |                 |          |            |           |  |                                    |
| <b>Name:</b> Share of sub-projects captured by M&E framework and reflected in annual reporting from the PIU   |      | Percentage      | 0.00     | 100.00     | Annual    | Municipalities' reporting with support from MTST             | UCP/MICT                           |
| <p><b>Description:</b> Share of sub-projects captured in M&amp;E framework and reflected in annual reporting from the PIU, reflecting sector focus, # of beneficiaries, implementation vs planned delivery, and costs.</p>  |      |                 |          |            |           |  |                                    |
| <b>Name:</b> Share of urban infrastructure projects provided under the project targeting enhanced resilience  |      | Amount(US D)    | 0.00     | 60.00      | Annual    | Municipalities - semiannual reporting with support from MTST | UCP/MICT                           |
| <p><b>Description:</b> Defined as the share of sub projects, that either directly target challenge associated with urban resilience or indirectly using technical standards that make the infrastructure more resilient to disaster risk.</p>   |      |                 |          |            |           |  |                                    |
| <b>Name:</b> Contingent Emergency Response Operations Manual  |      | Yes/No          | N        | Y          | Once      | UCP reporting  | UCP/MICT                           |



| Indicator Name   | Core | Unit of Measure | Baseline | End Target | Frequency   | Data Source/Methodology                                      | Responsibility for Data Collection |
|--|------|-----------------|----------|------------|-------------|--|------------------------------------|
| developed and adopted  |      |                 |          |            |             |  |                                    |
| Description: This Operations Manual describes the procedures to activate the funds under Component 3.  |      |                 |          |            |             |  |                                    |
| <b>Name:</b> Number of key municipal staff trained and provided with on the job support  |      | Number          | 0.00     | 60.00      | Semi-annual | Municipalities semiannual reporting with support from MTST   | UCP/MICT                           |
| Description: Key municipal staff include the mayors, the General Directors, the municipal urban planner and engineer, and the fiduciary staff. Key topics include: financial management, urban planning, safeguards, procurement, revenue mobilization, and project planning and implementation. Training can refer to in-class and tutoring training (on the job training) as provided under the project. |      |                 |          |            |             |  |                                    |
| <b>Name:</b> People provided with improved urban living conditions as a result of the municipal sub-projects   |      | Number          | 0.00     | 60000.00   | Semi-annual | Municipalities - semiannual reporting with support from MTST | UCP/MICT                           |
| Description: 60,000 urban inhabitants of Limonade, Quartier Morin, Acul du Nord, Plaine du Nord benefiting from Component 2's municipal sub-projects.  |      |                 |          |            |             |  |                                    |
| <b>Name:</b> Number of municipalities with fully functional City Hall/administration buildings   |      | Number          | 0.00     | 6.00       | Annual      | Municipalities - semiannual reporting with support from MTST | UCP/MICT                           |



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| Indicator Name   | Core | Unit of Measure | Baseline | End Target | Frequency | Data Source/Methodology | Responsibility for Data Collection |
|--|------|-----------------|----------|------------|-----------|-------------------------|------------------------------------|
| Description: Each commune has a fully functional and equipped city hall/administration building. |      |                 |          |            |           |                         |                                    |

**Target Values****Project Development Objective Indicators**

| Indicator Name  | Baseline | YR1     | YR2      | YR3       | YR4       | YR5       | YR6       | End Target |
|---|----------|---------|----------|-----------|-----------|-----------|-----------|------------|
| People provided with improved urban living conditions                                     | 0.00     | 0.00    | 50000.00 | 100000.00 | 200000.00 | 300000.00 | 328000.00 | 328000.00  |
| People benefiting from reduced flood risk in Cap-Haitien                                  | 0.00     | 0.00    | 0.00     | 0.00      | 10000.00  | 25000.00  | 58000.00  | 58000.00   |
| Direct project beneficiaries  | 0.00     | 5000.00 | 15000.00 | 30000.00  | 50000.00  | 85000.00  | 118000.00 | 118000.00  |
| Female beneficiaries  | 51.00    | 51.00   | 51.00    | 51.00     | 51.00     | 51.00     | 51.00     | 51.00      |
| Improved capacity to undertake integrated resilient development planning in the territory | 0.00     | 0.00    | 1.00     | 3.00      | 4.00      | 6.00      | 6.00      | 6.00       |
| Percentage of Beneficiaries who report satisfaction with project interventions            | 0.00     | 0.00    | 0.00     | 50.00     | 60.00     | 70.00     | 80.00     | 80.00      |

**Intermediate Results Indicators**

| Indicator Name  | Baseline | YR1  | YR2   | YR3   | YR4   | YR5   | YR6    | End Target |
|---|----------|------|-------|-------|-------|-------|--------|------------|
| Increase in own source revenue collection of the 6 communes targeted by the project | 0.00     | 6.10 | 14.70 | 28.10 | 66.00 | 92.00 | 105.00 | 105.00     |





| Indicator Name  | Baseline | YR1   | YR2    | YR3    | YR4    | YR5    | YR6    | End Target |
|---|----------|-------|--------|--------|--------|--------|--------|------------|
| Increase in own source revenue collection in other communes   | 0.00     | 14.00 | 52.00  | 90.00  | 128.00 | 166.00 | 204.00 | 204.00     |
| Increase in own source revenue collection in Cap-Haïtien  | 0.00     | 6.00  | 13.00  | 26.00  | 64.00  | 90.00  | 102.00 | 102.00     |
| Number of municipalities submitting financial reports to MICT no later than one month after the start of the Fiscal | 0.00     | 0.00  | 1.00   | 2.00   | 4.00   | 5.00   | 6.00   | 6.00       |
| Number of actions implemented in urban development plans by each municipality                                       | 0.00     | 0.00  | 1.00   | 3.00   | 5.00   | 8.00   | 12.00  | 12.00      |
| Roads rehabilitated, Non-rural  | 0.00     | 0.00  | 0.00   | 1.00   | 1.50   | 2.00   | 2.00   | 2.00       |
| Cities with improved livability, sustainability, and/or management  | 0.00     | 0.00  | 2.00   | 4.00   | 6.00   | 6.00   | 6.00   | 6.00       |
| Reduction in the flooded areas of Cap-Haïtien   | 0.00     | 0.00  | 0.00   | 0.00   | 20.00  | 100.00 | 201.00 | 201.00     |
| Successful implementation of sub-projects financed under MDUR   | 0.00     | 0.00  | 60.00  | 70.00  | 75.00  | 80.00  | 100.00 | 100.00     |
| Improved capacity to manage and mitigate flood risk through integrated planning                                     | N        | N     | N      | Y      | Y      | Y      | Y      | Y          |
| Share of sub-projects captured by   | 0.00     | 80.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00     |



| Indicator Name  | Baseline | YR1      | YR2      | YR3      | YR4      | YR5      | YR6      | End Target |
|---|----------|----------|----------|----------|----------|----------|----------|------------|
| M&E framework and reflected in annual reporting from the PIU                                    |          |          |          |          |          |          |          |            |
| Share of urban infrastructure projects provided under the project targeting enhanced resilience | 0.00     | 0.00     | 30.00    | 40.00    | 50.00    | 60.00    | 60.00    | 60.00      |
| Contingent Emergency Response Operations Manual developed and adopted                           | N        | Y        | Y        | Y        | Y        | Y        |          | Y          |
| Number of key municipal staff trained and provided with on the job support                      | 0.00     | 10.00    | 20.00    | 30.00    | 40.00    | 50.00    | 60.00    | 60.00      |
| People provided with improved urban living conditions as a result of the municipal sub-projects | 0.00     | 10000.00 | 30000.00 | 60000.00 | 60000.00 | 60000.00 | 60000.00 | 60000.00   |
| Number of municipalities with fully functional City Hall/administration buildings               | 0.00     | 1.00     | 3.00     | 6.00     | 6.00     | 6.00     | 6.00     | 6.00       |



## ANNEX 1: DETAILED PROJECT DESCRIPTION

### COUNTRY : Haiti

#### Municipal Development and Urban Resilience Project

1. The Project Development Objective is to (i) reduce urban flooding and enhance resilience in the city of Cap-Haïtien; and (ii) improve the capacity of six municipalities in the Cap-Haïtien metropolitan area to plan, finance and deliver basic municipal services and management. The Municipal Development and Urban Resilience Project (MDUR) will provide an integrated package of support to address core challenges and leverage existing opportunities in the region of Cap-Haïtien.
2. The MDUR focuses on the strategic city of Cap-Haïtien and its surrounding MLAs, as prioritized by the Government, thereby targeting the second economic engine of the country. Its strategic aim is to target flooding, as the biggest risk to sustainable development in the region, and at the same time promote government efforts to deepen local governments' capacity to deliver services and thereby contribute to further economic development and poverty reduction. Thereby, MDUR aims at (i) promote resilient and inclusive urbanization; (ii) expand access to basic infrastructure services in secondary cities; and (iii) improve urban management and planning capacity.
3. The project will fill a wide gap in Haiti's current development partner financing and will leverage the comparative advantage of the World Bank in supporting urban development and disaster risk management. The World Bank remains one of the key strategic partners for Government in the urban and DRM sectors, and remains a leading partner in both sectors. The Bank's collaboration with the government across multiple aspects of urban and territorial development provides a strategic opportunity to assist the Government in making timely and strategic choices about investments, policy reforms and strategic choices for future urbanization. Project design reflects a clear effort to enhance urban planning and management capabilities at the district level. Further, it builds on the existing intentions and policy goals that Haiti has made in better managing risks and challenges associated with climate change, and enables local governments to be capable of spearheading their own development and vision as part of the national development agenda. The project is integrated with national strategic plans and one of four investments under the Strategic Program for Climate Resilience (SPCR), presented by the GoH to the Pilot Program for Climate Resilience (PPCR) Sub-Committee and approved in May 2013<sup>30</sup>.

#### **Component 1: Vulnerability Reduction and Climate Resilient Urban Infrastructures. (\$34M including US\$6M from CIF)**

4. The component aims to contribute to the livability of the region and sustainable development of the Cap-Haïtien metropolitan area primarily by addressing its most significant risk from climate

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<sup>30</sup> The Haiti PPCR program, which besides MDUR included three projects: (i) Climate Proofing of Infrastructures in Centre-Artibonite Loop, WB US\$8.0M; (ii) Climate Proofing of Agriculture in the Centre-Artibonite Loop, IDB US\$4.5M; and (iii): Strengthening Knowledge Management of Hydro-meteorological, Water Resources, and Climate Data to Inform Decision Making and Policy Dialogue, WB US\$5 million.



challenge: flooding.<sup>31</sup> The objective is to build climate resilience in the metropolitan area through investments to reduce vulnerability to flood disasters. The main patterns are flash floods, particularly in ravines *Belle-Hôtesse* and *Zetriye*, associated with flooding due to irregular maintenance of the ravine systems and increasing subsequent erosion. Flood risk reduction investments combine structural and non-structural measures. Structural measures will include urban watershed restoration and river bank stabilization interventions. Non-structural measures will include an early warning system, preparedness and emergency planning, strengthening institutional capacity to maintain urban infrastructure, as well as flood avoidance through land use planning.<sup>32</sup> These interventions build on the results from several technical and hydrological studies undertaken in the course of project preparation.<sup>33</sup> The overall expected impact of the intervention is a significant reduction of the flood depth in a large area all around the *Rivière Haut du Cap* and important improvement of the ravines system, with significant reduction in the occurrence of flooding in the two targeted ravines.

5. The component includes the following two sub-components: (i) integrated management of the urban ravines; and (ii) flood mitigation management, in particular at the level of *Rivière Haut du Cap*, including (a) management of sediments, and (b) management of environmental and social impacts of the interventions.

6. **Sub-component 1-1: Integrated Management of the Urban Ravines (US\$3.0 M).** The objective of this sub-component is to address drainage issues in the Cap-Haïtien metropolitan area, understanding the ravines as a system and taking an integrated urban watershed management approach. The subcomponent will fund pilot risk mitigation interventions in two ravines of the Cap-Haïtien metropolitan region. *Belle-Hôtesse* and *Zetriye* ravines have been identified as key priorities, based on the flood risk assessment of Cap-Haïtien in 2015 and on discussions with the Government and local authorities. Both ravines are currently filled with sediment, and in some areas, critical embankment or retaining walls are damaged, significantly reducing the capacity and safety of the ravines. Both ravines are geographically located at the heart of Cap-Haïtien, causing flash floods several times per year in the center of the city.

7. The activities identified in the two ravines are: (i) emergency and non-regrettable works in pre-identified critical points, such as stabilization of banks and construction of retaining walls; (ii) sediment

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<sup>31</sup> Cap-Haïtien experienced four major floods in the last decade. Heavy rains in 2012, 2014 and 2016 resulted in flooding, causing several deaths, and damage to homes and infrastructure (these floods are just the most recent ones, at least ten other major floods have impacted the area since 1940: 1942, 1943, 1963, 1968, 1993, 1996, 2000, 2003, 2004, and 2007).

<sup>32</sup> Most of the non-structural measures will rely on on-going Bank-funded projects, such as the Strengthening Hydrometeorological Services Project (P148259) and the Disaster Risk Management and Reconstruction Project (DRMRP P126346), as well as other partners working in preparedness in Cap-Haïtien such as UNDP, while flood avoidance measures will be part of Component 1.

<sup>33</sup> A detailed flood risk assessment of Cap-Haïtien, finalized in April 2015 under the Emergency Bridge Reconstruction and Vulnerability Reduction Project, as well as the Urban Development and Climate Change Study in the Northern Development Corridor study, completed in February 2015 by the Inter-American Development Bank. Finally, a detailed hydrological study of the river *Haut du Cap* and *Bassin Rhodo* has been finalized in November 2016, including 2D modeling using Lidar and Digital Terrain Models (using Telemac software), as well as a full bathymetry of the river and the open sea and mechanical sediment tests, in order to better understand the river hydraulic dynamic, identify flood mitigation measures and estimate areas and people benefiting of the flood mitigation infrastructure. The hydrological study has the highest level of model sophistication and accuracy in Haiti and has been verified with an additional 1D model (using Sobek software).



canal cleaning to restore the full capacity of the ravines; and (iii) structural measures to control sedimentation, such as the construction and / or rehabilitation of thresholds to reduce the velocity of runoff, etc. Finally, non-structural erosion reduction measures, such as community awareness and campaign, as well as green infrastructure and small agro-business activities, will be piloted in the upper watershed of the ravines to reduce erosion and making the structural intervention more sustainable.

8. The Component will support the municipality of Cap-Haïtien to engage in contract dialogue and management with the provider, and will set up a clear strategy for long-term arrangements for maintenance, cleaning and management of the canal, including involvement of the private sector, the departmental level of the Ministry of Public Works and other stakeholders.

9. **Sub-component 1-2: Investments in Flood Mitigation Management along the *Rivière Haut du Cap* and addressing the challenges of *Bassin Rhodo* (US\$31.0M).** This sub-component aims at protecting the populations living within proximity of the *Rivière Haut du Cap* from flooding. It also aims to support GoH efforts to stop illegal urbanization along the river banks. This sub-component will include: (i) stabilization of the precarious river banks with infrastructure works near the river outlet; (ii) dredging of the river from sediments; and (iii) managing social and environmental impacts resulting from the intervention.

10. This sub-component builds on recent projects funded by the United Nations Stabilization Mission in Haiti (MINUSTAH) on segments of the *Rivière Haut du Cap* upstream of the bridge *RN3*, which stabilized the east and west banks of the river.<sup>34</sup>

11. A series of very precise hydraulic scenarios have been modelled and the best option selected based on its financial effectiveness. The scenario identified consists of: (i) investing downstream in the outlet that flows into the sea through 'non-regret' measures for the first 500 m (from the new bridge in the river mouth until the bridge *RN3*); and (ii) dredging the river upstream to about the outlet of *Bassin Rhodo* (about 1.8 km upstream from the sea).

12. **Additional financing beyond the current MDUR project will be required for follow-up phases 2 to 4. These phases include the following interventions<sup>35</sup>:**

- a) Phase 2: Continuation of the dredging from the outlet of *Bassin Rhodo* up to Colonial Bridge. The impact of this intervention will be substantial in terms of reduction in flood depths upstream of *Bassin Rhodo*. However, Phase 1 is a necessary intervention before Phase 2 works can be started;
- b) Phase 3: Diversion of Any River, which eliminates flooding of the complete area east of the airport, at the cost of a small increase in flooding of the *Rivière Haut du Cap* zone;
- c) Phase 4: Diversion of *Rivière Haut du Cap* from a location upstream of Colonial Bridge to the

<sup>34</sup> Both projects included some resettlement of highly vulnerable populations living on the river banks. On both sides, a concrete public promenade dotted with public installations for recreational purposes was also created to simultaneously serve as a strategy to prevent future illegal urban development. These projects, completed in 2012, did not include the cleaning or dredging of the river. Both projects have succeeded so far in their efforts to prevent illegal urbanization on the newly-developed river banks. The voluntary mobilization of local residents in ensuring the clearance of the area contributed greatly to such positive results.

<sup>35</sup> The implementation of Phases 2 to 4 would also make valuable land available for urban expansion.



eastern side of *Bassin Rhodo*. The impact of this intervention will be a nearly complete elimination of flooding of the area around Colonial Bridge.



Figure 1: Map of the proposed hydraulic interventions under Component 1 (the first phase will be financed under the MDUR project)



13. Cleaning and dredging operations to remove accumulated materials in the *Rivière Haut du Cap* will be carefully designed from removal to disposal stage so as to avoid the illegal land filling/reclamation practice that has been observed in the upstream part of river or the estuarine water basin of *Bassin Rhodo*. The design will ensure proper handling and treatment of the removed materials.

14. To manage the uptake in sediments from the canal resulting from the dredging, the project will finance different mechanisms to ensure proper treatment of the sediments. The project will also coordinate with the proposed new IDB operation to support improved solid waste collection is underway, and an AFD pilot operation in Cap-Haïtien (*Quartier Morin* and *Petite Anse*) to implement pre-collection, sorting and transfer activities. The project will closely liaise with the operations above so as to ensure reduced dumping and sedimentation in waterways after the activities and facilitate contaminated sediment management by using the new landfill as final disposal.

15. Dredging activities will take place in several different areas including estuarine areas, areas with low energy flows as well as torrential flows (ravines). Therefore, sediment resulting from these operations will be of very heterogeneous nature, including with respect to low-grade organic contamination. The nature and volume of material requires that a Sediment Management Plan be developed as part of the EMMP to ensure management actions are environmentally beneficial, logistically and economically feasible, and to identify, prioritize, and manage sediments to protect marine community health. This plan will be based on dredging and disposal best management practices for selecting appropriate project-specific best practices, including dredging equipment and methods,



turbidity control, disposal and monitoring protocols.

16. Based on the outcome of the ongoing sediments studies and consultations, the project will consider alternative options for managing sediments, and use of planned sanitary landfill for any contaminated sediment and waste. Options for managing sediments will require permits from the Haitian Ministry of the Environment and the Haitian Maritime and Navigation Service (*Service Maritime et de Navigation d'Haïti*).

17. Finally, the project will finance a comprehensive flood risk assessment and management plan, including climate change effects and urbanization trends for the entire river basin. The plan will also address and identify a cost-effective set of options for priority measures to reduce flood risk in the basin through sustainable flood management up to a certain safety level (measured as return period 1/20-1/50-1/100 years). This will include the neighborhoods near the airport, which are potential areas for urban expansion. The study will also include additional options to reduce amount and speed of rainwater runoff, particularly in urban areas, such as 'green' measures in the upstream areas of the river *Haut du Cap*.<sup>36</sup>

18. Some areas of metropolitan Cap-Haïtien will not benefit of the project interventions, therefore their vulnerability and exposure to floods and other risks will remain. The project will seek complementarity with other government and municipal initiatives, financed by various partners, to support measures to prepare communities and reduce the impact of expected flooding. These preparedness measures would be supported by the Municipal Civil Protection Committees, which are currently being strengthened by the World Bank-financed Haiti DRM and Reconstruction Project (P126346).

19. The plan will adopt robust modeling measures against a tendency toward low accuracy and limited historical data, by building climate change into structural and non-structural options. An IDB study estimates the change in the inundation area with and without climate change up to 6 percent for 50 years return period. Therefore, the hydrologic and hydraulic models for the watershed will account for the effect of climate change and will be based on the high resolution DTM (digital terrain model up to 20 centimeters (cm) resolution) available from the National Center for Geographical and Spatial Information (CNIGS) and financed under the PRGRD project.

## **Component 2: Municipal Investment Support, Capacity Building and Strategic Planning (US\$15M)**

20. **Objective and Approach.** Component 2 provides financial and technical support to the municipality of Cap-Haïtien and the five other municipalities in the Cap-Haïtien metropolitan region (Limonade, Quartier Morin, Plaine du Nord, Acul du Nord and Milot). The support aims to enhance the municipalities' capacity to plan and implement resilient infrastructure and local services, improve their management capacity and ability to mobilize local resources, and improve their ability to undertake spatial planning and management. The following three interlined subcomponents will be implemented under the project: (i) Sub-component 2.1: Urban development grants for improvement of local

<sup>36</sup> The IDB Urban Development and Climate Change Study in the Northern corridor estimated flood reduction risks reduced up to 27 percent by increasing the interception of water in the upper reaches of the watershed, therefore decreasing the peak and total storm flow in intense rainfall events.





infrastructure and service delivery; (ii) Sub-component 2.2: Institutional strengthening and capacity building; and (iii) Sub-component 2.3: Support to strengthen spatial management and land use planning. Given the large investment in the municipality of Cap-Haïtien under Component 1, Cap-Haïtien will only benefit from support under sub-components 2.2 and 2.3.

**Table 2: Key statistics on target municipalities – MDUR**

|  | Cap-Haïtien          | Quartier-Morin | Limonade                | Acul du Nord            | Plaine du Nord | Milot      |
|--|----------------------|----------------|-------------------------|-------------------------|----------------|------------|
| Total population                                 | 274,404              | 27,359         | 55,145                  | 55,908                  | 41,255         | 31,992     |
| Urban population                                 | 269,036              | 4,766          | 21,805                  | 13,400                  | 14,811         | 10,731     |
| Urban population growth rate (%)                 | 5.25                 | 2.1            | 1.9                     | 1.5                     | 2              | 1.6        |
| Budget in US\$ (2015-2016)                       | 1,350,958            | 93,141         | 105,685                 | 101,275                 | 78,205         | 82,175     |
| Share of Own Source revenue (2015-2016)          | 92%                  | 14%            | 17%                     | 7%                      | 11%            | 2%         |
| Share as transfers from state (FGDCT) (2015- 16) | 8%                   | 83%            | 83%                     | 85%                     | 65%            | 95%        |
| Staffing (General and Qualified)                 | 308 and 40           | 39 and 7       | 66 and 8                | 64 and 9                | 55 and 7       | 45 and 6   |
| Development plans and documents                  | Local Financing Plan |                | Local Financing Plan    | Local Financing Plan    |                |            |
|  | Urban Plan           | Urban Plan     | Urban Plan              | Urban Plan              | Urban Plan     | Urban Plan |
|  |                      |                | Local Development Plans | Local Development Plans |                |            |

21. **Municipal investments, capacity building and strategic planning activities, will be demand-driven.** Municipal investment sub-projects will be identified and implemented in the broader perspective of participatory territorial planning. Their identification and implementation will follow the participatory programmatic approach developed under previous projects, in particular, the Bank-funded PTDT, PAST and PRODEPUR projects.<sup>37</sup> These projects, however, all used the “Consultation Table” (TCC) or “Communal Development Council” (CDC) mechanism.<sup>38</sup> The current project will also make use of the TCC/CDC mechanism for the definition of priorities and subsequent selection of local investments and capacity building activities.

22. **The two-phases of Component 2 investment implementation.** Component 2 investment sub-projects will be implemented in two phases of about three years each: (i) Phase 1 – from project initiation until project MTR (Project Year 3); and (ii) Phase 2 – from PY4 to project closure (PY6). The two

<sup>37</sup> Respectively: *Projet de Transport et Développement Territorial* (FY06) which ended on July 30, 2013; *Cultural Heritage Preservation and Tourism Sector Support Project*, on-going (FY14); and *Urban Community Driven Development Project*, additional financing (FY14), which ended on December 31, 2016.

<sup>38</sup> The TCC is an *ad hoc* project-type mechanism that has been used by for more than a decade to support the consultation process as part of the implementation of specific donor-funded projects. The CDC is the corresponding mechanism created before the TCC as part of the MLA set-up at communal level. The idea under the project is to use the CDC as means to get the TCC institutionalized.



phases will have the following characteristics:

23. *Phase 1:* This phase is designed to build up the MLA operating capacity through MLA core and targeted staff training, and support to MLAs for preparation and update of their Local Development Plans (PDCs) and Urban Plans (PUs). Since their capacity during this phase will be insufficient, MLAs *will not be given direct fiduciary responsibility* for sub-project operations; instead the Project Unit in Cap-Haïtien (UCP Cap) will be in charge of implementing all MLA fiduciary and safeguard procedures and will manage the sub-project funding. UCP Cap will make use of a delegated implementing agency<sup>39</sup> to facilitate the delivery of the sub-projects, as per the experience in other projects in Haiti. This first phase of project implementation will finance municipal sub-projects of high priority identified during the project preparation and verified as part of the feasibility study in the first six months after effectiveness. This intervention will respond to the immediate demands and expectations of MLA constituencies, hence improving MLA credibility with their constituents and gaining ownership on their part, based on visible infrastructure and service delivery improvements.

24. *Phase 2:* For the second phase, at project MTR, the capacity of the MLAs will be assessed again, in terms of fiduciary management, procurement and overall management capacity.<sup>40</sup> The assessment will also take into account the overall level of absorption and disbursement of funds for sub-projects in each MLA under Phase 1. If the assessment finds improved MLA management capacity, the MLAs will be given further responsibility. Alternately, if the assessment still finds too many gaps in MLA capacity, the approach from Phase 1 with a delegated implementation agency will be continued in Phase 2, but the low performing municipalities will have access to a smaller share of the fund pool in Phase 2 in order to incentivize strong performance. The Operational Manual will also provide guidance for redistribution of funds across districts in case of low absorption capacity of one or more municipalities, to ensure that the project can be completed as planned and to reward strong performance. There will be no *ex-ante* intervention by UCP Cap, and MLAs will be given the funding in tranches corresponding to planned expenditure levels. Their accounts will be subjected to *ex-post* auditing and to feedback by the population/ beneficiaries on the use of funds. Giving MLAs responsibility for implementation (*maîtrise d'ouvrage*) is expected to give them the wherewithal to manage their own operations without external support once the proposed project is completed.

### **Sub-Component 2.1: Municipal Investment Support (US\$10M)**

25. **MLA investment support activities.** Sub-Component 2.1 will finance MLA investment sub-projects. Sub-projects will be identified based on local priorities and implemented under specific conditions and incentives agreed with the MLAs. This is to ensure the sustainability and resilience of the investments, as well as their full alignment with individual communal planning documents (Urban Plans-PUs and/or Communal Development Plan-PDCs) and the municipality mandate. Sub-projects will be based on conditions, eligibility criteria and incentives specified in the Project Operational Manual.

26. **Allocation of Funds.** The fund allocation for sub-projects will reflect the two-phased approach with the total financial envelope of about US\$10 million, divided equally between the two phases. For

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<sup>39</sup> *Maîtrise d'ouvrage Délégué (MDOD)*

<sup>40</sup> The detailed assessment criteria will be established in the operational manual.



the first phase, the MLA funding will be based on a core allocation supplemented on an adjusted population-based formula.<sup>41</sup> It is expected that each of the five MLAs will receive approximately between US\$800,000 up to US\$1,250,000 over the course of Phase 1, and a similar amount in Phase 2, depending on their performance. This represents a considerable increase to their available capital budget (current annual total budgets range between around US\$80,000 to US\$105,000 for the five MLAs outside Cap-Haïtien).

**Table 1: Indicative Allocation of Investment Funding under Sub-component 2.1 - MDUR**

|                                       | Total population | Urban Population | Population Based Envelope (US\$) | Fixed Enveloped (US\$) | Total (US\$)     | Av. costs per sub-project (US\$) | Estimated # sub-projects |
|---------------------------------------|------------------|------------------|----------------------------------|------------------------|------------------|----------------------------------|--------------------------|
| <b>Allocation de base (1st phase)</b> |                  |                  |                                  |                        |                  |                                  |                          |
| Limonade                              | 55,000           | 20,300           | 749,969                          | 498,925                | 1,248,894        | 200,000                          | 6                        |
| Quartier Morin                        | 27,000           | 4,800            | 260,063                          | 498,925                | 758,988          | 200,000                          | 4                        |
| Acul du Nord                          | 41,000           | 10,900           | 470,485                          | 498,925                | 969,410          | 200,000                          | 5                        |
| Plaine du Nord                        | 56,000           | 15,000           | 644,961                          | 498,925                | 1,143,886        | 200,000                          | 6                        |
| Milot                                 | 32,000           | 8,600            | 369,147                          | 498,925                | 868,072          | 200,000                          | 4                        |
| <b>Total</b>                          | <b>211,000</b>   | <b>59,600</b>    | <b>4,989,250</b>                 |                        | <b>4,989,250</b> |                                  | <b>25</b>                |

27. **Sub-project objectives.** The sub-projects are meant to improve access to ‘basic’ services in urban areas, hence serving municipal development needs. The menu of investments will be established based on: (i) investment options identified in collaboration with municipalities during project preparation to launch the batch of feasibility studies for the sub-projects; and (ii) the specific priorities that have emerged from the systematic participatory process underpinning the preparation and/or update of the urban plans as part of project implementation.

28. **Sub-project eligibility and prioritization criteria.** The sub-projects eligible for funding under the proposed project concern sectoral investment priorities identified in the Communal Development Plans, Urban Plans and/or tri-annual investment plan, and as agreed between different municipalities in the case of inter-municipal sub-projects. All sub-projects meeting this condition and other basic eligibility conditions, and complying with the negative list,<sup>42</sup> will be evaluated and prioritized based on the cost-efficiency, social and environmental feasibility, and sustainability of investments in terms of sub-project operations and maintenance. The specific location of sub-projects is still unknown, but will be identified during the feasibility studies.

29. **Sub-project size.** Sub-project size will depend on the choices made by MLAs regarding the type

<sup>41</sup> The core allocation for Phase 1 will be 50% of the total allocation; the remainder will be based equally on the urban and total population numbers, respectively. The adjusted formula takes into account that in the national classification, some municipalities (e.g. Quartier Morin) have a relatively small ‘urban population’ and therefore would receive a lower share of grants than municipalities with larger urban populations (e.g. Limonade), even though Quartier Morin is a municipality that is largely affected by the rapid expansion of Cap-Haïtien. Hence, the principle of equity has also been taken into account.

<sup>42</sup> No sub-project will be selected if it were to fall under the negative list which will be detailed out in the Operations Manual, but which include inter alia sub-projects in the health, education and energy sectors as they come under the purview of corresponding sector ministries, sub-projects related to construction of places of worship, and/or places that will promote the use of intoxicating substances, sub-projects that have significant negative social or environmental impacts, and projects that include procurement of vehicles.



and characteristic of the individual sub-project. Since the selection process is demand-driven and predicated on participatory planning, it is not possible to determine *ex-ante* the size of individual sub-projects, and hence, the number of sub-projects to be financed. This said, the maximum size of the sub-projects should be reasonable for two reasons: (i) to avoid overconcentration of resources on a few large projects; and (ii) to have a sufficient number of sub-projects to cover basic priorities needs.<sup>43</sup>

30. **Sub-project pipeline.** Potential sub-project investments identified during project preparation include drainage and sanitation improvement, flood prevention and reduction (including pathways for evacuation and alternative resettlement sites and sources of livelihoods for affected populations), shoreline stabilization, identification of residential buildings and commercial/production units, street lighting and paving, sidewalk upgrading, street naming, renovation of public squares, landscaping and park improvement, drainage network extension, improvements in public transportation (including bus stations), etc. The first batch of municipal sub-projects have been identified as part of project preparation, so that preparation of feasibility studies for these sub-projects can start as soon as possible following project effectiveness.

### **Sub-component 2.2 – Institutional strengthening and capacity building for municipalities (US\$3M)**

31. **Sub-Component Activities.** Sub-component 2.2 will provide resources for administrative operations, upgrade of buildings and equipment, and technical assistance and capacity building.

32. **Support for Administrative Operations:** MLAs currently have insufficient budget resources to operate effectively. The project will provide resources to MLAs, on the order of US\$40,000 to US\$60,000 each, based on population numbers, so they can operate efficiently from the beginning of the project. This includes resources to meet their basic needs (power, water, improvement of basic office working conditions, etc.).

33. **Upgrade of building and equipment facilities:** Currently, several MLA facilities are not fully functional or are below standard and require renovation or upgrading. The project will provide support to each MLA to upgrade their buildings and basic office equipment and furniture;

34. **Technical assistance and staff upgrading:** MLA staff lack basic and specialized expertise. Training tailored to the specific needs of the municipalities will be provided through the support of a Mobile Technical Assistance Team. Each municipality will be requested to prepare its own staff capacity building plan. The project will provide technical assistance to MLAs for capacity building in the following areas:

- (i) Municipal Development: Prepare and/or update Communal Development Plans (PDCs), related Investment Plans, and Operations and Maintenance (O&M) Plans, including the O&M plans related to the portfolio of sub-projects envisaged under Sub-Component 2.1;
- (ii) Resilient Spatial Municipal Planning: This will include preparation of zoning lay-out and approval of building permits;

<sup>43</sup> Based on the analysis of current available PUs and PDCs, eligible investments will typically fall in financial terms (i) between US\$150,000 and US\$250,000, for individual sub-projects of the small satellite municipalities (Limonade, Quartier Morin, Milot, Plaine du Nord et Acul du Nord); and (iii) around US\$500,000 for larger scale projects, in some cases inter-municipal.



- (iii) **Fiduciary Management and Municipal Finance and Procurement:** This will include the preparation and implementation of integrated Revenue Enhancement Plans to help MLAs generate a sustainable increase in local own-source revenues; and
- (iv) **Participatory Processes and Citizen’s Engagement:** This will support preparation of participatory processes through the Communal Development Council (CDC) and/or Consultation Table (TCC). An implementation plan for the capacity building program for each MLA will be prepared and a MoU between the MLA and the MICT will be developed to identify key targets and milestones for related activities.

35. **Exchanges and communications:** The project will provide resources to MLAs for exchange visits and communications.

### **Thematic areas for administrative capacity building**

36. **Sub-project preparation and execution.** Support will be provided for the identification, preparation, and implementation of the sub-projects to be financed under Sub-Component 2.1. This will include support for developing procurement and safeguard procedures. Corresponding training, including on-the-job training, coaching and exchange visits with other municipalities, will also be provided to MLAs to build their capacity to sustainably prepare, implement and operate their sub-projects, including to identify, prepare, and implement inter-municipal investments (see Sub-Component 2.3).

37. **Improving mobilization of municipal finance.** Technical assistance will be provided to the MLAs for the development of Revenue Enhancement Plans linked to the Investment Plans and O&M Plans. The main focus of these Plans will be to increase the tax base and streamline collection on property taxes (e.g., *Contribution Foncière des Propriétés Bâties*) and business taxes (*patentes*). This will be achieved through customized municipal-level interventions, such as support for the installation and use of CIVITAX – a local tax management software – and the census and evaluation of taxable properties.

38. **Social services and participatory processes.** The component will fund the additional expenses incurred for the operation of the CCT/CDC in supporting participatory planning processes, as well as any communication expenses to provide validation and get ownership of the plans. It will also provide support for: (i) the ‘socio-cultural’ facilitators that are listed among the core MLA staff; (ii) the feedback mechanisms/hotlines at MLA level; and (iii) the development of communication materials.

39. **The Mobile Technical Support Team.** The main instrument for the provision of capacity building support to MLAs will be the Mobile Technical Support Team (MTST). This team will consist of experts in key areas: urban planning, architect, financial management, revenue mobilization and procurement. The team will be based in Cap-Haïtien and will rotate among the MLAs to provide direct technical support on a daily basis, initially at least for the first three years of the project. The technical support provided will be based on the specific needs and demands of MLAs as specified in the work plans. The team will provide training (both on the job and in the classroom) as an integral part of its Terms of Reference. The Technical Assistance (TA) team’s objective in providing capacity building will be to strengthen the capacity of MLA staff so that they can take over when the team finishes its assignment and leaves the project.



**Sub-component 2.3 – Support to Strengthen Spatial Management and Land Use Planning (US\$2M)**

40. This sub-component will strategically link the investment and capacity support provided under Sub-Components 1.1 and 1.2 by helping MLAs to undertake and execute improved developed planning and budgeting, land use planning and spatial management, and expand and implement strategic planning for the greater Cap-Haïtien metropolitan area encompassing the six target municipalities of this project. The support will be provided at the municipal level and at the metropolitan/departmental level.

41. At the municipal level, Sub-Component 2.3 will complement the investment support under Sub-Component 2.1 and capacity support under Sub-Component 2.2 to provide support for MLAs in the following core areas: (i) developing/updating and implementing MLA core development documents, including the Local Development Plans; (ii) creating and implementing the Action Plan for each MLA’s Urban Development Plan; and (iii) developing and applying land management tools.

42. At the metropolitan/departmental level, this sub-component will provide support to the expansion and implementation of the planning framework for the Region or *Pôle* Cap-Haïtien. This will include: (i) regulatory framework support as required; (ii) logistical and technical support to the key stakeholders at the departmental level; (iii) support for regional planning on cross-cutting themes and constraints (e.g., reduce vulnerability to risks, reduce the proliferation of precarious neighborhoods); (iv) and support to approval processes, dissemination and information to stakeholders. The sub-component will also finance various activities such as studies to update and validate existing metropolitan strategies, and development of a metropolitan plan with associated investment and financing plan.

43. Sub-Component 2.3 will also fund the additional operating expenditures for the meeting of the *Table de Concertation Départementale* (Departmental Consultation Table) in relation to matters relevant for the metropolitan area (this includes the sectorial tables meetings on themes such as flood control, solid waste and sanitation, disaster preparedness, transport, etc.). The project will finance the expenditures related to the operation of the Consultation Tables for the two *arrondissements* concerned with the Cap-Haïtien metropolitan area.

**Table 2: Costs for Component 2 activities**

| <b>Sub-Components / Activities</b>   | <b>US\$</b> |
|--|-------------|
| <b>Sub-Component 2.1 : Urban development grants for improvement of local infrastructure and service delivery</b> |             |
| Activity 2.1.1: Sub-Project Funding  | 9,978,500   |
| Sub-Total  | 9,978,500   |
| <b>Sub-Component 2.2 Institutional strengthening and capacity building</b>                                       |             |
| Activity 2.2.1 : Initial budgetary support   | 250,000     |
| Activity 2.2.2 : Buildings and office equipment  | 750,000     |
| Activity 2.2.3 : Technical Assistance  | 1,951,000   |
| Activity 2.2.4 : Communications and exchanges  | 210,000     |
| Sub-Total  | 3.036,500   |
| <b>Sub-Component 2.3 : Support to strengthen spatial management and land use planning</b>                        |             |
| Activity 2.3.1 Regional-level support  | 630,000     |



|  |            |
|--|------------|
| Activity 2.3.2 Municipal-level support | 1,355,000  |
| Sub-Total                              | 1,985,000  |
| TOTAL                                  | 15,000,000 |

**Component 3: Contingent Emergency Response (US\$0M)**

44. The proposed project includes a Contingent Emergency Response component, to respond rapidly at the GoH’s request in the event of an eligible emergency, including implementation of emergency infrastructure reconstruction, rehabilitation, and associated studies (Emergency Response Activities). Disbursements will be made against a list of critical goods or the procurement of goods, works, and consultant services required to support the GoH’s immediate response and recovery needs.

45. Following an adverse natural event during the execution period of the proposed project, MICT or MTPTC may request the Bank to reallocate project funds to support response and reconstruction. This component will facilitate the rapid re-categorization of financing and additionally, financing request under streamlined procedures during an emergency, should the Government so request. This component will be implemented in accordance with the Bank’s Special Considerations under OP/BP 10.00, and all expenditures will be appraised, reviewed and found to be acceptable to the Bank prior to any disbursements. Disbursements will be made against a positive list of critical goods (both domestic and imported) or the procurement of goods, works, and consulting services (including audit costs) required to support the immediate response and recovery needs of the GoH.

46. Preparatory work will be undertaken for the design of the component, including: (i) preparation of an agreed preliminary emergency recovery Action Plan; (ii) compilation of a positive list of eligible critical imports/needs; (iii) terms of reference and contracts for technical services to support the scoping and design of the emergency recovery and reconstruction sub-projects; and (iv) a list of firms (national and regional) that have a demonstrated track record in emergency response activities related to the anticipated nature and scope of those required. A separate Operations Manual will apply to this component detailing financial management, procurement, safeguards and any other necessary implementation arrangements.

47. Specific eligible expenditures under the category of Goods could include: (i) construction materials; (ii) water, land, and air transport equipment, including spare parts; (iii) petroleum and fuel products; (vii) construction equipment and industrial machinery; (viii) communications equipment; and any other goods items acceptable to the Bank and agreed upon between the Borrower and the Bank.

48. Specific eligible expenditures under the category of Works include emergency infrastructure works (repairs, rehabilitation, construction etc.) to mitigate the risks associated with the disaster for affected populations, and any other Works acceptable to the Bank and agreed upon between the Borrower and the Bank.

49. Specific eligible expenditures under the category of Services could include urgent studies (technical, social, environmental etc.), necessary as a result of the effects of the disaster, such as the identification of priority works, feasibility assessments, designs of adequate works, delivery of related analyses, and any other Services acceptable to the Bank and agreed upon between the Borrower and





the Bank. Environmental and social screening of activities under Component 3 will follow the procedures outlined in the ESMF and RPF frameworks. Pilot Program for Climate Resilience funding will not be used for emergency response.

**Component 4: Project Management and Implementation Support (\$6M).**

50. This component will finance the costs associated with strengthening and developing the institutional capacity for project management, coordination, implementation, and monitoring and evaluation, as well as costs associated with supporting the project implementing agencies. Component 4 will be divided into two sub-components. Sub-component 4.1 will finance strengthening of the capacity of the UCE-MTPTC for management coordination, implementation, monitoring, and evaluation of all civil works aspects of the project, including safeguards. Sub-component 4.2 will finance strengthening of UCP-MICT capacity for: (i) overall project coordination, including consolidation of financial and progress reports; and (ii) management, coordination, implementation, monitoring and evaluation of project elements for municipal strengthening and investment planning capacities. Component 4 will also finance PPCR coordination activities for all Haiti SPCR projects, under the leadership of CIAT. Component 4 will also finance the project communication strategy and outreach efforts, which will inform all components. The project, through UCP, will implement a communication strategy throughout implementation to promote citizen engagement.

51. The project will support the engagement of project beneficiaries in the preparation, implementation and monitoring of investment sub-projects funded under Component 2. A sub-group of beneficiaries with relevant experience will be trained to monitor at least the non-technical aspects of the construction (such as the presence of contractors, visual aspects of construction, etc.), with particular consideration to members of the Sub-Project Implementation Committees when these committees are established.





## ANNEX 2: IMPLEMENTATION ARRANGEMENTS

COUNTRY : Haiti

### Municipal Development and Urban Resilience Project

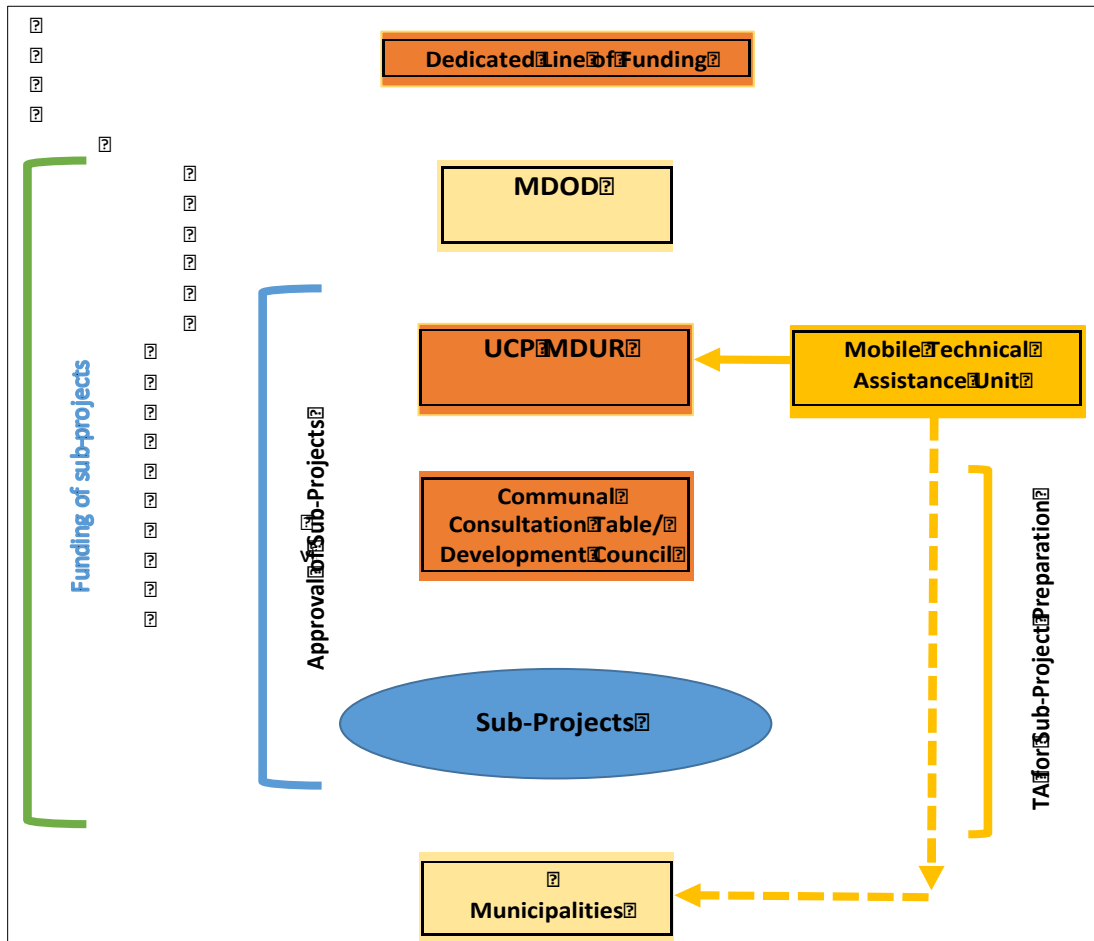
#### Project Coordination, Institutional and Implementation Arrangements

1. Overall project implementation will be the responsibility of the Ministry of Interior and Local Authorities (MICT), which has the institutional mandate for municipal development, the Ministry of Public Works, Transport and Communications (MTPTC), through its project implementation unit UCE, and the MLAs, all serving as the direct interlocutors with the Bank.
2. **Activities under Component 1** will be implemented by the *Unité Centrale d'Exécution* (UCE) under the MTPTC, with guidance and oversight by the city of Cap-Haïtien. UCE will be responsible for contracting and supervising the design and construction phases of all Component 1 activities. Given UCP-MICT's absence of an environmental unit, the UCE-MTPTC will also implement all safeguards related aspects of Component 2.
3. **Component 2.** Proposed activities under Component 2 will be implemented by the *Unité de Coordination de Projets* (UCP) under the MICT and the MLAs' guidance and oversight. UCP is currently responsible for the Bank-funded Reconstruction and Disaster and Risk Management Project (PRGRD)<sup>44</sup> and will also be responsible for MDURP project implementation. UCP will be required to strengthen its technical capacity to implement the municipal development component. In addition, the deconcentrated department of the Ministry of Planning will be provide support under Component 2.3 but will implement on the basis of support provided through MICT.
4. A Mobile Technical Support Team (MTST) will be in place to support the MLAs with project design, prioritization, management and supervision. Once MLAs have demonstrated sufficient capacity, a certain degree of implementation responsibility will be delegated to them. MLAs will provide guidance and oversight for project design, prioritization, management and supervision through the Communal Consultation Table (TCC) and Development Council (CDC), the central structure governing MLA investment activities. The TCC/CDC mechanism is used to examine and decide on communal matters pertaining to territorial planning and municipal investment implementation. It is chaired by the mayor of the MLA. Its membership is inclusive, with all segments of the population being represented, including civil society organizations and private sector representatives.
5. MLAs' project implementation responsibilities will increase as the project progresses and municipal capacities are strengthened. Phase 1 is designed to build up the MLA operating capacity through MLA core and targeted staff training, and support to MLAs for preparation/ update of their Local Development Plans (LDPs) without direct responsibility for project operations. Depending on the outcome of Phase 1 and assessment of MLAs' performance, it is expected that some or all of the MLAs will have enough capacity to take greater direct responsibility in the implementation of sub-projects,



including procurement and FM.<sup>45</sup> This will be determined at midterm as part of project assessment. Should the decision be made to transition to more direct role in implementation for some or all MLAs, then the project will be restructured accordingly and the corresponding project funding will be deposited in a dedicated account open by each MLA.<sup>46</sup> The amount of funding granted to each MLA will be based on the results of their mid-term assessment of their performance during Phase 1.

Figure 1: Diagram of sub-project preparation, selection and funding



6. **Project team based in Cap-Haïtien.** Both units are currently implementing Disaster Risk Management and Transport projects financed by the World Bank, and their existing procurement, disbursement, and financial arrangements and capacities are considered satisfactory. Each unit will retain fiduciary autonomy and manage its own designated account. Some of the technical staff of these two units will form a single project team based in Cap-Haïtien. This team will be headed by two Technical Project Coordinators from UCE and UCP for Components 1 and 2, respectively, reporting to

<sup>45</sup> See the case of Cap-Haïtien and Milot municipalities that already have had experience with the Bank-funded PRODEPUR and PAST project, and other municipalities with the EU-funded AGIL project and USAID-funded Lokal+ project.

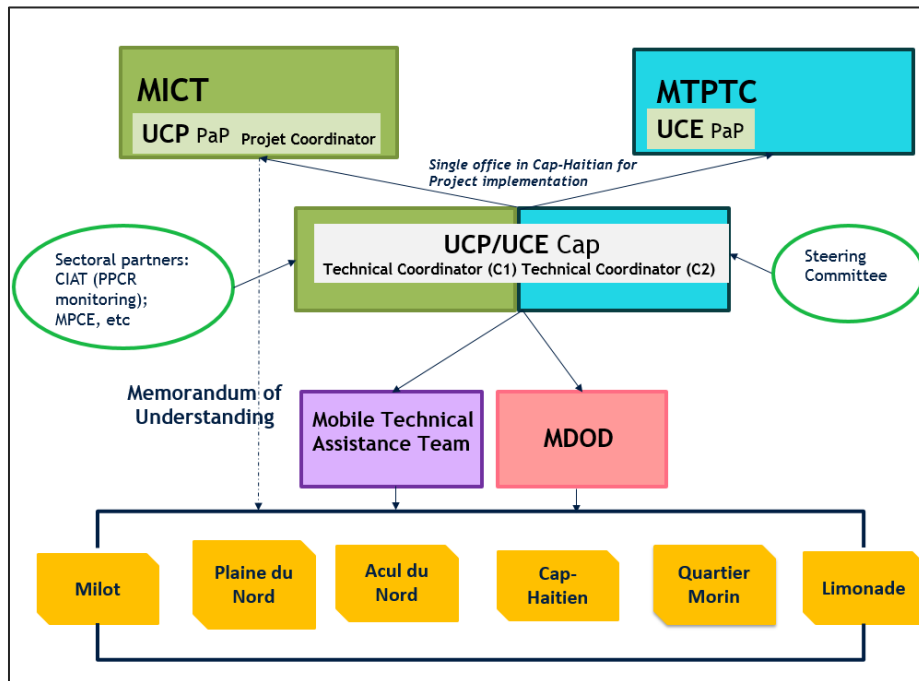
<sup>46</sup> This amount should also be reflected in the municipal budget as resources for investments as well as the amount for maintenance.



the UCP Project Coordinator based in Port-au-Prince, in charge of overall project management and reporting. Having a consolidated project team based in Cap-Haïtien will facilitate technical coordination between Components 1 and 2, in particular with regard to: (i) investment sub-projects on flood control and solid waste/sediment management in the municipalities targeted by Component 2; (ii) any inter-municipal projects that include the municipality of Cap-Haïtien; and (iii) resettlement issues related to the flood risk reduction works in the *Bassin Rhodo*. The coordinated team will also work to guarantee effective project supervision of activities on the ground, and to consolidate cross-sectional functions like M&E, safeguards and communications. An assistant to the Project Coordinator will represent the project in Port-au-Prince and liaise with central authorities as needed.

7. **The Delegated Implementation Agency (MDOD).** During Phase 1 of project implementation, the responsibility for overseeing sub-project selection and implementation (including fiduciary requirements) will be entrusted to a Delegated Implementation Agency (MDOD). The MDOD will ensure that sub-project selection is undertaken as prescribed in the Project Implementation Manual. It will also ensure that sub-project disbursements are made according to sub-project implementation plans and that the disbursed funds are utilized as planned according to Bank rules for the use of funds. During Phase 2 of project implementation, it is expected that the MLAs will take over from the MDOD as they build their capacity to manage investments. This process will be dependent on MLA performance during Phase 1. Hence, it will be gradual and the MDOD will disengage progressively until MLAs are able to fully take over. The MDOD will coordinate closely with the MTST team to identify the technical support that MLA will have regarding sub-project selection and management.

Figure 2: Diagram of implementation arrangements<sup>47</sup>



<sup>47</sup> UCP PaP and UCE PaP refer to the UCP and UCE locations in Port-au-Prince



## Financial Management, Disbursements and Procurement

### *Financial Management Responsibilities*

8. As indicated in the Project Institutional and Implementation Arrangements, financial responsibilities will rely on existing Financial Management (FM) capacity of the UCE-MTPTC for Component 1 and UCP-MICT for Component 2. For Phase 1 of Component 2, UCP will be responsible of all financial management. It is envisaged that the UCP will make use of a delegated implementing agency (MDOD) to facilitate the delivery of the sub-projects, as per the experience in other projects in Haiti. The Project Coordination Unit in Cap-Haïtien (UCP Cap) will be in charge of all supervision, monitoring and safeguard procedures of the sub-project implementation. For Phase 2 of the project, qualified MLAs will take responsibility for managing some activities including financial management. In order to maintain adequate FM arrangements to handle the activities generated by the proposed project, UCP-MICT and UCE-MTPTC agreed to undertake the actions detailed below:

1. Finalize the implementation (installation, training, and maintenance) of the accounting system to allow reporting according to World Bank format;
2. Ensure arrangements for the transition of staff under the DRM project to take over roles on the MDUR project (after effectiveness);
3. Train new FM staff in Bank's FM policies and norms; and
4. Within four months of grant effectiveness, conclude an audit contract for the project's financial statements based on TORs acceptable to the Bank.

9. **Implementation Support Arrangements.** As part of the proposed project supervision missions, risk-based FM supervision will be conducted every six months. These will pay particular attention to: (i) project accounting and internal control systems; (ii) budgeting and financial planning arrangements; (iii) review of Interim Financial Reports (IFRs); (iv) review of audit reports, including financial statements, and remedial actions recommended in the auditor's Management Letter; and (v) disbursement management and financial flows. FM supervision will pay particular attention to any incidences of corrupt practices involving project resources for project implementation.

10. The proposed FM arrangements at the UCP-MICT and UCE-MTPTC for the proposed project meet the minimum fiduciary requirements under OP/BP10.00. More details on implementation arrangements are detailed below.

11. **Staffing.** The FM functions of the UCP-MICT and UCE-MTPTC are under the responsibility of the Project Coordinator for each unit. At UCP-MICT as of April 2017, the Accounting Unit is composed of a financial management specialist and an accountant. At UCE-MTPTC as of April 2017, the Accounting Unit is composed of a financial management specialist, a senior accountant, five junior accountants, and two administrative and financial consultants. This team has experience managing donor funds. Currently, staff capacity and structure in each unit are adequate for project FM purposes.

12. **Budgeting Process.** The budget process will be clearly stipulated in the administrative, financial and accounting procedures manuals. Annual budgets and work plans will be coordinated and prepared



by each the Accounting Unit and submitted to the Bank for its no-objection before the beginning of the fiscal year and any changes in the budget and work plans will also be submitted to the Bank on a no-objection basis.

13. **Accounting Policies and Procedures.** The proposed project will use Cash Basis Accounting for preparation of the project's semi-annual interim financial statements and audited annual financial statements, in accordance with the International Public Accounting Standards (IPSAS) and the national Accounting Standards. The project's Operations Manual (OM) will contain a financial management section with specific sub-sections for each of the PIUs (UCE-MTPTC and UCP-MICT), which will include appropriate accounting policies and financial reporting procedures. The FM capacities at UCE-MTPTC and UCP-MICT will continue to review the current policies and procedures and the detailed systems of internal control and determine if any additional control measures need to be implemented for the proposed project. The draft OM will be subject to review and acceptance by the World Bank and will be finalized prior to effectiveness. The OM will be revised as needed to include MLAs section before Phase 2 of the project begins.

14. **Accounting System.** UCE-MTPTC has a computerized accounting software, TOMPRO, which is not fully operational. UCE will need to follow up with the supplier to ensure that the system is fully operational and all users trained accordingly in order to keep track and report on the proposed project expenditures in accordance with the Bank's financial management requirements. UCP-MICT acquired and implemented a new accounting system (ACCPAC) which is already operational. The Bank team assessed the full functionality of both systems at appraisal.

15. **Internal Controls and Internal audit.** UCE-MTPTC and UCP-MICT will maintain strong systems of internal controls and procedures that will be documented in the OM. MTPTC has an internal audit department which has never audited any World Bank project managed by UCE. The project will support the PIU to finance an internal auditor that will be working with both PIUs to help prepare regular internal audits.

16. **Reporting arrangements.** For existing projects implemented by UCP-MICT and UCE-MTPTC, IFRs are regularly prepared and transmitted to the World Bank, though with delays especially for UCE-MTPTC. Under the proposed project, both PIUs will prepare and transmit semi-annual IFRs to the World Bank for the components under their responsibilities. The IFRs will be submitted to the Bank no later than forty-five (45) days after the end of the semester.

17. **Auditing Arrangements.**

- a) Annual audited financial statements of the proposed project will be transmitted to the World Bank not later than six (6) months after the end of each recipient's fiscal year. The auditors will issue a single opinion on the consolidated financial reports prepared by UCP-MICT and UCE-MTPTC.
- b) The external audit will be undertaken by a private firm selected in accordance with independence and competency criteria acceptable to IDA.



*Disbursement Arrangements and Flow of Funds*

18. The primary disbursement methods will be Advances, Direct Payments, Reimbursements and Special Commitments. To facilitate timely disbursements for the proposed project's eligible expenditures, the Recipient, through UCE-MTPTC and UCP-MICT will each open and operate a segregated Designated Account (DA) in U.S. dollars at the central bank (*Banque de la République d'Haïti* (BRH)). Subsequently, each PIU will open another account denominated in Haitian Gourdes (HTG) at BRH. UCE-MTPTC and UCP-MICT will also manage the account denominated in HTG at BRH to process local payments. UCE-MTPTC and UCP-MICT will be responsible for the appropriate accounting of the funds deposited into the designated accounts, for reporting on the use of these funds and for ensuring that they are included in the audits of the financial statements. Ceiling of the DAs and the Minimum Application size for Direct Payment or Special Commitment will be communicated in the Disbursement Letter.

19. Summary Sheets with Records and Statements of Expenditures (SOE) will be required for documenting eligible expenditures and reimbursements to be paid by the DAs. Direct Payments will be documented by Records. Applications documenting the advances to the DAs will be made on a quarterly basis.

20. SOE limits for expenditures against contracts for works, goods, consultant services for consulting firms, and individual consultant services will be determined in the Disbursement Letter. Documentation supporting expenditures claimed against SOEs will be retained by the implementing agency and will be available for review when requested by the World Bank supervision missions and the proposed project's auditors.

21. The proposed project will have a Disbursement Deadline Date (final date on which the World Bank will accept applications for withdrawal from the Recipient or documentation on the use of Grant proceeds already advanced by the World Bank) of four months after the Closing Date of the proposed project. This "Grace Period" is granted in order to permit orderly project completion and closure of the Grant account via the submission of applications and supporting documentation for expenditures incurred on or before the Closing Date. Expenditures incurred between the Closing Date and the Disbursement Deadline Date are not eligible for disbursement, except as otherwise agreed with the World Bank. All documentation for expenditures submitted for disbursements will be retained at the UCE-MTPTC and UCP-MICT during the lifetime of the proposed project and be made available to the external auditors for their annual audit, and to the World Bank and its representatives if requested. After project closing, the relevant documentation will be retained for two years, following the Government's regulations on record keeping and archiving. In the event that auditors or the World Bank implementation support missions find that disbursements made were not justified by the supporting documentation, or are ineligible, the World Bank may, at its discretion, require the Recipient to: (i) refund an equivalent amount to the World Bank, or (ii) exceptionally, provide substitute documentation evidencing other eligible expenditures.

22. Before the World Bank closes the Grant account (two months after the Disbursement Deadline Date), the Recipient must provide supporting documentation satisfactory to the World Bank that shows the expenditures paid out of the DA, or refund any undocumented balance. If the Recipient fails to



provide the documentation or refund required by the World Bank by this date (two months after the Disbursement Deadline Date), the World Bank does not permit the use of the DAs under new Grants/Credits made to or guaranteed by the Recipient.

#### *Procurement*

23. Procurement activities for the project will be executed by UCP and UCE for all project activities. UCP, under the MICT and the MLAs, will implement project Component 2, and will also coordinate and monitor the procurement activities at the departmental level; UCE, under the MTPTC and MLA-Cap-Haïtien, will implement project Component 1. Based on a preliminary assessment of their capacity, UCP and UCE appear to have sufficient experience implementing procurement financed by the Bank and other donors to manage procurement under the proposed project. However, UCP personnel must be reinforced by adding at least one administrative assistant at department level to assist the local coordinator, given that some activities under Component 2 will be managed at the local level. In addition, UCP's and UCE's procurement staff should receive intensive training in the Bank's new procurement framework, policy and guidelines. With this strengthening, UCP and UCE should be well-equipped to manage procurement activities under the new Bank guidelines. Simplified procurement procedures (to be specified in the PP) will apply to sub-projects under Component 2. Following the MTR after Phase 1 of Component 2, and on the basis of an assessment of the performance and procurement capacity improvements of the MLAs, procurement responsibilities under Component 2 may be transferred to eligible MLAs. The Project Operation Manual would be consequently updated to take in account the changes in the new MLAs procurement responsibilities.

24. Project Procurement Strategy for Development was carried out and identified the appropriate selection methods, market approach and type of review by the World Bank. Most activities under the proposed Project will be carried out through National or International Competition. An acceptable Procurement Plan was also prepared and will be executed in accordance with paragraph 5.9 of the "World Bank Procurement Regulations for IPF (July 2016) ("Procurement Regulations"), the Bank's Systematic Tracking and Exchanges in Procurement (STEP) system. Procurement arrangements for the Contingent Emergency Response Component are described in the Operational Manual. For International Competition, in addition to the Bank's Standard and Sample Bidding Documents, the UCP and UCE will use standard bidding documents agreed with the CNMP (*Commission Nationale des Marchés Publics*). A series of mitigation measures will be implemented to ensure the satisfactory performance of procurement functions within the UCP and UCE. These include: (a) assessment of procurement capability of the UCP and UCE; (b) supervision of procurement/selection transactions carried out by the UCP and UCE; and (c) inclusion of Special Procurement Provisions in the Procurement Plan. All procurement procedures are described in the Project Operation Manual which would be updated to reflect the above activities. To maintain sound procurement processes, the UCP and UCE will carry out procurement audits. To this end, it will: i) ensure all procurement records and documentation for each fiscal year of the project and the additional financing are audited by independent auditors acceptable to the Bank in accordance with appropriate procurement audit principles; ii) furnish to the Bank the procurement audit report; and iii) furnish to the Bank other information concerning the procurement records, documentation and reviews. The scope of this Audit will also include the procurement/selection transactions carried out by the UCP and UCE.





*Environmental and Social (including safeguards)*

25. *Social Safeguards:* The project is rated Category “B”. The Social Safeguards Policy triggered is OP 4.12 on Involuntary Resettlement.

26. Component 1 (Vulnerability Reduction and Climate Resilient Urban Infrastructure) of the project involves significant social impacts related to the involuntary resettlement of about 300 slum-dwelling households, required for the widening of the *Bassin Rhodo* outlet to the sea, and the loss of economic livelihoods linked to dozens of small informal sector businesses located downstream of *Bassin Rhodo* (workshops, eateries, etc.). A Preliminary Social Risk Assessment was carried out for the World Bank in May-July 2016 by a locally based international NGO (CECI) to evaluate the potential risks and opportunities related to resettlement along the *Bassin Rhodo* outlet. The study concluded on the feasibility of acquiring a band of 15 meters along the left bank of the *Bassin Rhodo* outlet (*Quartier La Fossette*) which is mainly occupied by social housing. It recommended minimizing land acquisition to a band of 5 meters on the right bank of the outlet (*Quartier Shada 1*) due to its occupation by larger residential and commercial structures and to the presence of ex-military and militia personnel among its inhabitants who might oppose relocation efforts. The study highlighted the challenges related to resettling households from the *Bassin Rhodo* outlet due to limited availability of land in Cap-Haïtien. It also raised concerns regarding potential legacy issues related to previous resettlement operations conducted by local authorities over the past few years in the downtown area, including for a MINUSTAH site located just upstream of the RN-3 Bridge.

27. The study recommended further consideration of three resettlement strategies for the *Bassin Rhodo* outlet: (i) in situ resettlement of affected households and businesses by acquiring an additional 10-meter strip of land on the left bank of the *Bassin Rhodo* outlet with one-story housing occupied by about 200 households and rebuilding with better quality two-story housing to accommodate resettled households; (ii) relocation of affected households to the Genie Payer area close to the airport that constitutes the priority extension zone for the municipality (7 km away); or (iii) relocation of affected households close to the new Industrial Park area in Limonade (about 20 km away).

28. An international consulting firm has been recruited to prepare a Resettlement Action Plan (RAP) in compliance with national law and World Bank safeguard policies. A first round of local public consultations on the RAP was carried out by the Client in February 2017 in collaboration with the City of Cap-Haïtien. Three resettlement options in the *Bassin Rhodo* outlet were presented to the public: (i) in situ resettlement on the left bank of the canal (*Quartier La Fossette*); (ii) relocation of affected households close to the airport; or (iii) relocation of affected households close to the new Industrial Park area in Limonade. National and local authorities have expressed support for each of these options and have identified an additional in situ resettlement site occupied by an abandoned CARE warehouse on the right bank of the *Bassin Rhodo* outlet (*Quartier SHADA 1*). A socio-economic census of affected households and informal businesses was carried out in March 2017. Under the RAP, displaced households would benefit from rental subsidies for a period of at least two years before resettling in housing units built by the project. Displaced businesses would be fully compensated for their losses. Preliminary cost estimates for RAP implementation are in the order of US\$16 million, including US\$12 million for fully serviced replacement housing, US\$3 million for compensation, livelihood restoration





and resettlement assistance, and US\$1 million for the recruitment of a qualified resettlement implementation entity. These costs would be fully covered by the project.

29. Component 1 of the project will also include the excavation of debris and waste from the two main ravines that channel flood waters down from the *mornes* (hills) surrounding Cap-Haïtien: Ravines *Belle-Hôtesse* and *Zetriye*, thereby improving the urban environment and minimizing flood-related risks in the downtown areas. This will require minor resettlement (a few structures) that will be managed through the preparation of a separate Abbreviated Resettlement Action Plan (ARAP).

30. Pursuant to OP 10.00, and due to capacity constraints, the completion of the safeguards requirements for Component 1 is deferred until the implementation phase due to capacity constraints compounded by unforeseen delays (political transition, technical complexity, flooding in the Cap-Haïtien area during preparation, shocks in the aftermath of Hurricane Matthew demanding Government response), which did not allow for completion of the Component 1 RAP and ARAP prior to appraisal. The proposed Safeguards Action Plan is adequate to ensure proper environmental and social management.

31. Component 2 (Investment Support and Capacity Building) of the project will most likely result in limited social and resettlement impacts through its planned support to small-scale public works that remain to be defined (upgrading of local market facilities, improvement of local roads, development of open spaces, and rehabilitation of inter-municipal roads, etc.). These impacts will be managed on the basis of a Resettlement Policy Framework prepared by the Government in compliance with national law and Bank safeguard policy requirements. The RPF was discussed with local stakeholders in public consultations in February-March 2017 and was As part of the capacity building component(s), training in the implementation of the RPF for Component 2 will be provided to the PIU. The RPF will be included as part of the Operations Manual.

32. In addition, other potential impacts that will be assessed include labor influx, and potential impact of structures due to vibrations from heavy machinery. These are both expected to be minimal. In addition, these impacts will be mitigated by prioritizing local labor and ensuring clarity on where laborers coming from outside will be hosted through their stay in the host community and ensuring that contracts are consistent with ESMP provisions, applying a Code of Conduct and using dredging technologies with minimal vibration impacts.

33. *Gender.* The project will incorporate gender considerations at all levels in terms of committing to at least 51 percent women beneficiaries. In general, women are the most likely to be affected by floods, but their concerns are least likely to be addressed by decision-makers. Women are most present in areas of employment within informal sectors, which are often the worst affected by disasters; thus the rates of unemployment among women after a disaster are high. Furthermore, with women having little access to land tenure and the majority of land owned by women being of inferior quality, small natural losses affect them disproportionately. The project will pay close attention to women's and girls' priorities in identification and funding of small-scale municipal investments (i.e. lighting of roads and public spaces), avoiding/minimizing resettlement impacts to women-headed households, and establishing minimum quotas for recruitment of female staff in social mobilization, and capacity building activities to create some job opportunities for female community members.



34. *Citizen Engagement and Conflict Management:* Beyond safeguards risks, other social risks include social tension, which may be exacerbated by perceived inequities in the selection of investments and the distribution of project benefits. The project will mitigate this risk by the following actions: (a) engage in pro-active communication strategy that will explain to local governments, beneficiaries and public at large the benefits from the project for various communities and municipalities; (b) apply clear and transparent criteria for the selection of sub-projects, (c) develop robust information request and grievance redress measures for the project activities as a whole (not only for safeguards-related issues). The project will support the engagement of project beneficiaries in the preparation, implementation and monitoring of local investment plans and strengthen the capacity of local governments to better respond residents' needs in the selected municipalities. The project will draw on the participatory mechanisms developed and successfully applied under the Cultural Heritage Preservation and Tourism Sector Support Project, the Urban Community Driven Development Project (PRODEPUR), Neighborhood Housing reconstruction Project (PREKAD), as well as other initiatives, such as PINNE, AGIL and LOKAL+ initiative.

35. *Environmental Safeguards:* The project is rated Category "B" on the basis of impacts that are substantial but not sensitive, diverse, or unprecedented, and not irreversible. The Safeguards Policies triggered are: OP 4.01 Environmental Assessment, OP 4.04 Natural Habitats, OP 4.11 Physical Cultural Resources (to cover rehabilitation involving cultural and historical structures and to cover chance finds procedures on cultural resources) and OP 4.36 Forests. Environmental impacts of the intervention have been assessed to be manageable, provided that the appropriate mitigation measures that will be included in the final ESIA will be meticulously implemented, with close oversight from the PIU and an international supervision firm and with support from international experts.

36. The key environmental issues of the project relate to the works in a river and ravines under Component 1 and sub-projects under Component 2. For Component 3 (Emergency Response Contingency) the ESMF and RPF will apply, and for C.4 (Project Management) there are no foreseeable impacts.

37. Under Component 1 (Vulnerability Reduction and Climate Resilient Urban Infrastructure), the project will aim to reduce the risk of flooding associated with the *Bassin Rhodo*, through widening and dredging the outlet of *Bassin Rhodo* to the sea and the dredging the lower reaches of *Bassin Rhodo* itself. The project will also include the excavation of debris and waste from the two main ravines that channel flood waters down from the *mornes* (hills) surrounding Cap-Haïtien: *Ravines Belle-Hôtesse and Zetriye*, thereby improving the urban environment and minimizing flood-related risks in the downtown areas. In addition, to reduce risks of erosion and landslides, the project will contribute to the stabilization of slopes in the *mornes* surrounding Cap-Haïtien by promoting watershed restoration, riverbank stabilization and planting of vegetation on slopes.

38. Component 1 will have a number of positive environmental impacts. These include flood reduction, improved tidal movement and water quality in the *Bassin Rhodo* (e.g., dissolved oxygen, temperature), and improved soil, flora and fauna conditions on the *mornes* (hills) surrounding Cap-Haïtien through soil stabilization activities. However, significant negative impacts have also been identified along the *Bassin Rhodo* outlet and upstream and downstream of the outlet. These will



require careful management and include: (i) impacts associated with demolition and construction of houses and of establishment of a sediment sorting and storage platform; (ii) impacts of dredging and driving of sheet-piles; (iii) impacts related to the production, selective sorting, maritime transport and disposal at sea of large amounts of sediment of acceptable quality; and (iv) impacts related to production, selective sorting, transport by land and disposal in a landfill or a temporary storage site of small amounts of sediment of lesser quality.

39. Disposal of debris from dredging, which consists of municipal solid waste (MSW), gravel and soil, and will be done according to the results of the ESIA. The disposal methods and sites will be verified for suitability by the project's ESIA. Several options are under consideration, namely:

(i) *Disposal at sea, for material dredged in the bay, downstream of the river mouth.* An acceptable disposal site, 9 km offshore, beyond existing fringing coral reefs, at a depth of 850 m, was identified in a study carried out in 2015 by the US Army Corps of Engineers (USACE) for dredging the Cap-Haïtien port, and could be used as a reference. Dispersion models prepared by the USACE show that release of sediment at that depth has negligible impact on the marine habitat. These sites will be verified for suitability by the project's ESIA;

(ii) *Sanitary landfilling for material contaminated by MSW, heavy metals, petroleum products, or other contaminants.* A landfill site is in the process of being developed with IDB and AFD funding at Mouchinette in the Limonade area and could represent an appropriate location to host a designated, controlled disposal cell required for the contaminated waste generated through the project. The sediment disposal at Mouchinette will be beneficial to the IDB and AFD project as it could generate significant cash flow for the sanitary landfill and provide material for daily cover.

40. For the most urbanized section of the river, between the RN3 Bridge and the mouth, the project will drive sheet-piles to demarcate the width of the river, to improve flow, and to ensure the stability of the riverbanks. Depending on the method chosen, the impact of driving sheet-piles (noise, vibration) will be assessed and appropriate mitigation measures will be recommended. The impacts on local traffic congestion and health and safety of transport by land and disposal of dredging materials of lesser quality will also be carefully assessed and mitigated.

41. Although the ecology of the *Bassin Rhodo* is heavily degraded and not well known, some parts of the basin are still healthy, and provide habitat to fish, birds (flamingos) and invertebrates. The basin and its outlet also support local fishermen. The ESIA being prepared includes measures to mitigate impacts of sediment removal on these habitats and activities.

42. Lastly, the city of Cap-Haïtien and surrounding municipalities are over 300 years old, and contain some Pre-Columbian, French colonial and Haitian historical and cultural monuments and buildings, including bridges and culverts, whose heritage value is recognized by UNESCO. Excavations and works to be carried out under the project will take care not to cause any damage to these sites, and technical specifications for works will include "chance find procedures" to be followed in the event that culturally significant materials are discovered, per the Bank's policy on physical cultural resources.



43. An international consulting firm has been recruited to prepare an Environmental and Social Impact Assessment (ESIA) in compliance with national law and World Bank safeguard policies. A first round of local public consultations on the ESIA was carried out by the Client in February 2017 in collaboration with the City of Cap-Haïtien. The scope of potential impacts and the ESIA preparation process was explained to participants. Sediment management (extraction, separation, and disposal of sediment to landfill or offshore, depending on quality) will be complex, but will be carried out according to best international practice. Well-tested technical solutions exist and are routinely used internationally, but are new to Haiti. The ESIA builds on a bathymetric study, a hydrological study, a solid waste study, a river morphology study, a dredging study, a socio-economic study, an erosion study, as well as sediment dispersal modelling, in order to inform the optimal environmental outcome for the project.

44. Pursuant to OP 10.00, and due to capacity constraints, the completion of the safeguards requirements for Component 1 is deferred until the implementation phase due to capacity constraints compounded by unforeseen delays (political transition, technical complexity, flooding in the Cap-Haïtien area during preparation, shocks in the aftermath of Hurricane Matthew demanding Government response), which did not allow for completion of the ESIA prior to appraisal. The proposed Safeguards Action Plan is adequate to ensure proper environmental and social management.

45. Component 2 (Investment Support and Capacity Building) of the project will most likely result in limited environmental, health and safety (EHS) impacts through its planned support to upgrading small-scale public works that remain to be defined (upgrading of local market facilities, improvement of local roads, drainage, development of open spaces, and rehabilitation of inter-municipal roads that will be selected on a participatory basis, etc.). As the exact nature and location of the works under Component 2 remains unknown, a “Framework” approach was adopted by the project, in which impacts will be managed on the basis of an Environmental and Social Management Framework (ESMF) prepared by the Government in compliance with national laws and Bank safeguard policies. Each sub-project implemented will be screened according to the Framework and determine what measures are required to mitigate any environmental, social, cultural, and resettlement impacts. Once the sites are known, site-specific Environmental Assessments or Environmental and Social Management Plans (ESMPs) and Resettlement Action Plans (RAPs) will be prepared, according to the Frameworks, and implemented by the client prior to the start of any construction. The draft ESMF was discussed with local stakeholders in public consultations in February-March 2017 and the final ESMF was disclosed on the World Bank’s website on May 9, 2017 and in-country on May 17, 2017. As part of the capacity building component(s), training in the implementation of the ESMF for Component 2 will be provided to the PIU. The ESMF will be included as part of the Operations Manual.

#### *Monitoring & Evaluation*

46. The Results Framework (RF), presented in Section VII, has been developed in coordination with the MICT, the MICT and the MLAs. The monitoring of the indicators will be carried out by the UCP-MICT and UCE-MTPTC’s monitoring and evaluation designated staff, under the overall coordination of UCP, who will collect M&E data directly from a focal point located at the MLAs (could also be in conjunction with the technical assistance unit) regarding municipal sub-projects. All indicators were reviewed vis-à-vis PPCR Core Indicators to ensure coordination of efforts. UCP-MICT’s monitoring and evaluation staff



will also liaise with CIAT (PPCR focal point in the GoH) and report progress on the SPCR implementation and share lessons learned.

47. The Project Coordinator located within UCP-MICT will be responsible for providing timely information about the project's implementation progress, including qualitative information on the execution of selected activities, procurement and contractual decisions, accounting and financial recording, and other operational and administrative matters. The project's Operations Manual will provide specific details regarding monitoring and evaluation responsibilities, data collection requirements, timing and use of information.

*Role of Partners (if applicable)*

48. The project is closely harmonized and coordinated with other key development partners working in the Cap-Haïtien metropolitan region and working on the urban and DRM sector. With regard to Component 2, the project builds on several years of experience by partners such as USAID and the European Union in areas of support to local governance and service delivery. The approach is closely harmonized and builds on lessons from these projects, as well provides opportunities for future collaboration in the same area. With regard to sediment management, the project is closely connected to the ongoing project preparation efforts from AFD and IDB in the area of solid waste management, also described earlier. This collaboration may contribute to more efficient use of resources and a much more integrated development solution for the city of Cap; the IDB project will address and cover solid waste management issues, whereas the Bank-financed project will address challenges in terms of spatial management, urban planning and provision of basic services.



### ANNEX 3: IMPLEMENTATION SUPPORT PLAN

COUNTRY : Haiti

#### Municipal Development and Urban Resilience Project

1. This project marks the beginning of municipal strengthening and development engagement for the World Bank in Haiti. The project will build on the existing government programs, which are currently (i) strengthening municipal administrative structures and planning and (ii) reducing disaster risks. The implementation support plan (ISP) for this project is therefore designed to ensure that the initial setup and startup of the project is assured, including addressing technical challenges related to capacity constraints of implementing entities that may not have substantial experience with Bank projects and large scale hydraulic/flood protection works, as well as to ensure strong momentum in the first 12 months of the project.

2. The ISP aims to focus implementation support in the areas where the implementing agencies need to be strengthened further, in particular in crosscutting areas regarding Bank rules and regulations, e.g., in procurement, safeguards and financial management. Given the nature of the project, particular efforts will also be made to ensure adequate support to the Client in the more specific technically complex areas, including in hydrology and sediment management.

#### Implementation Support Plan

3. The ISP is built around extensive implementation support provided by the Task Team Leader (TTL), assisted by operational support staff and technical experts in institutional development, municipal development hydrology, climate change, sediment management, and engineering design. It will consist of regular missions (which will include site visits to the project municipalities), video conference meetings between the Bank team and the Government, and fiduciary compliance reviews.

4. Given the fragile institutional context and the complexity of activities, the project will require particularly close support in the startup and early phases. An MTR will be conducted after approximately 36 months of implementation to review performance in depth, based on progress and studies commissioned for the MTR, and make any adjustments to the project.

5. It is projected that a total of 26 implementation support missions will be required over the life of the project. Beyond the startup phase, these are intended to be required quarterly. Key areas of focus for the first months of supervision include:

- Monitoring procurement of the engineering design and construction firms responsible for the hydraulic and sediment management activities under Component 1;
- Monitoring procurement of the Delegated Implementation Agency (*Maître d'Ouvrage Délégué* - MDOD) in charge of managing the dedicated line of financing for municipal investments under Component 2;
- Monitoring procurement of the municipal strengthening Technical Assistance Team under Component 2;



- Monitoring procurement of construction firms for the first year municipal investments;
- Supporting training for UCP-MICT, UCE-MTPTC and municipal staff in World Bank procedures and policies (in particular fiduciary management);
- Supporting MLAs in initiating the identification of municipal investments for the second phase of the project under Component 2;
- Monitoring application of safeguards instruments by including safeguards specialists in quarterly missions during the first year of implementation and thereafter in semiannual missions. These specialists will also assure knowledge transfer and development of adequate training programs for staff at MTPTC, MICT and municipalities;
- Fiduciary missions will focus on the performance of the implementing agencies in managing contracts, procurement, and financial matters, as well as on completing the agreed implementation plans; and
- Coordination with the main partners (IDB, AFD, and EU) to ensure synergies with other projects implemented in parallel in the same project area.

The following skills mix and resources needs are estimated:

**Table 3.1: Main focus in terms of support to implementation**

| Time                    | Focus  | Skills Needed  | Resource Estimate (US\$) |
|-------------------------|--|--|--------------------------|
| First twelve months     | Procurement of flood protection works technical designs; start of first year municipal works; and start of capacity building activities                              | TTLs, hydrologist, sediment management specialist, DRM specialist, urban planning, procurement, FM, safeguards, M&E                    | 200,000                  |
| Until MTR (yr. 2–3)     | First year municipal works supervision; start of flood protection/sediment management works; capacity building; identification of second phase municipal investments | TTLs, hydrologist, sediment management specialist, DRM specialist, urban planning, procurement, FM, safeguards, M&E                    | 300,000 total            |
| MTR (yr. 3)             | MTR  | TTLs, hydrologist, sediment management specialist, DRM specialist, urban planning, procurement, FM, safeguards, M&E, Economic analysis | 200,000                  |
| Following MTR (yr. 4–6) | Continued implementation; works capacity building  | TTLs, hydrologist, sediment management specialist, DRM specialist, urban planning, procurement, FM, safeguards, M&E                    | 300,000                  |
| Total (6 years)         |  |  | 1,000,000                |



**Table 3.2: Implementation Support**

| Skills Needed                                  | Number of Staff Weeks (for duration of project) | Number of Trips      | Comments  |
|--|---|----------------------|---|
| TTL  | 72  | 26                   | Ongoing implementation support to the client; four times yearly implementation support missions (2 additional missions in the first year of implementation) |
| Co-TTL DRM specialist                          | 72  | 26                   | Ongoing implementation support to the client; four times yearly implementation support missions (2 additional missions in the first year of implementation) |
| Operations support                             | 72  | 24                   | Ongoing implementation support to the client; four times yearly implementation support missions   |
| Procurement                                    | 60  | Country office based | Twice-yearly missions; routine support as needed  |
| Financial management                           | 60  | Country office based | Twice-yearly missions; routine support as needed  |
| Hydrologist                                    | 30  | 12                   | Ongoing implementation support to the client; twice yearly implementation support missions and routine support as needed                                    |
| Urban development specialist                   | 30  | 12                   | Implementation support missions at least twice a year   |
| Urban development specialist, local consultant | 30  | Locally based        | Ongoing implementation support to the client  |
| GIS Specialist                                 | 15  | 0                    | Remote support as needed  |
| Program Assistant                              | 72  | Country office based | Ongoing team support  |
| Environmental safeguards                       | 48  | 13                   | Implementation support missions at least twice a year (one additional mission in the first year of implementation)  |
| Social safeguards                              | 48  | 13                   | Implementation support missions at least twice a year (one additional mission in the first year of implementation)  |
| Legal  | 2   | 0                    | Staff weeks for any restructuring   |
| Disbursement                                   | 2   | 0                    |   |
| <b>Total</b>                                   | <b>618</b>                                      |                      |   |





## ANNEX 4: EXECUTIVE SUMMARY FOR PROJECT PROCUREMENT STRATEGY DEVELOPMENT

1. **General:** Procurement will be carried out in accordance with the “World Bank Procurement Regulations for Borrowers under Investment Project Financing (IPF)” dated July 1, 2016. As per the requirements of the World Bank’s New Procurement Framework (NPF), the first draft of a comprehensive Project Procurement Strategy for Development (PPSD) was carried out and identified the appropriate selection methods, market approach and type of review by the World Bank for the high risk and value contracts that will be executed during the implementation of the project. The objective is to improve procurement efficiency. Most activities under the proposed project will be carried out through National or International Competition. An acceptable Procurement Plan was also prepared. Procurement arrangements for the Contingent Emergency Response Component are described in the Operational Manual. For International Competition, in addition to World Bank Standard and Sample Bidding Documents, the MICT through the PIUs (UCE and UCP) will use standard bidding documents agreed with the CNMP (*Commission Nationale des Marchés Publics*).
2. **Project Procurement Development Objectives (PPDO):** To increase procurement efficiency and ensure value for money that contributes to reducing climate risks and urban flooding in the city of Cap-Haïtien, while contributing to strengthening the MLAs and building their local governance capacity to deliver better services to the municipalities.
3. **Project Procurement Result Indicators:** The following indicators will measure the achievement of the PDO: i) Bidding processes initiated as per the Procurement Plan, with no substantial delays and no rebidding; ii) No substantial cost and time overrun of the contracts; and iii) Successful implementation of Key Performance Indicator (KPIs) in the key contracts
4. **Procurement Institutional Arrangements:** Procurement and contract management implementation will be the responsibility of the *Direction des Collectivités Territoriales* (DCT - Local Authorities Directorate) under the MICT with the coordination of the DRM project (UCE and UCP). Project implementation teams have been well established. The project implementation teams will be supported at departmental and local levels, with responsibility for overall project coordination and reporting. Both UCE-MTPTC for the infrastructure Component 1 and UCP-MICT for the local urban development and local governance improvement will be responsible for ensuring proper quality of component design, procurement and construction management and supervision.
5. **MICT and MTPTC Capabilities and Project Implementing Unit Assessment:** Project implementation will be the responsibility of both Project Implementation Units (PIUs) – UCE and UCP – which will be responsible for procurement, contract management, financial management, disbursement, safeguards, and monitoring and evaluation. Project implementation teams have been established and will be supported by DCT and MLAs at the local level. UCP under DCT and MICT will be in charge for the overall project coordination and reporting, including monitoring compliance with safeguards, fiduciary, legal and other covenants. It is also envisaged that UCP will take the lead coordinating institutional strengthening and capacity building.
6. PIU staffs have limited experience in handling complex contracts financed by the World Bank with efficiency. The New Procurement Framework is also new and procurement staff involved in the



project will be trained on the different features of NPF and the Bank's Systematic Tracking and Exchanges in Procurement (STEP) system. Indeed, short-term consultant experts will be used to reinforce both UCE and UCP for better efficiency and improve their capability in the management of large and complex contracts, when required. Field staff passing and managing the contracts need comprehensive training in the new regulations, STEP and contract management, too. The Bank will also provide hands-on implementation support for ensuring that procurement packages have been efficiently delivered in the attainment of the PPDO.

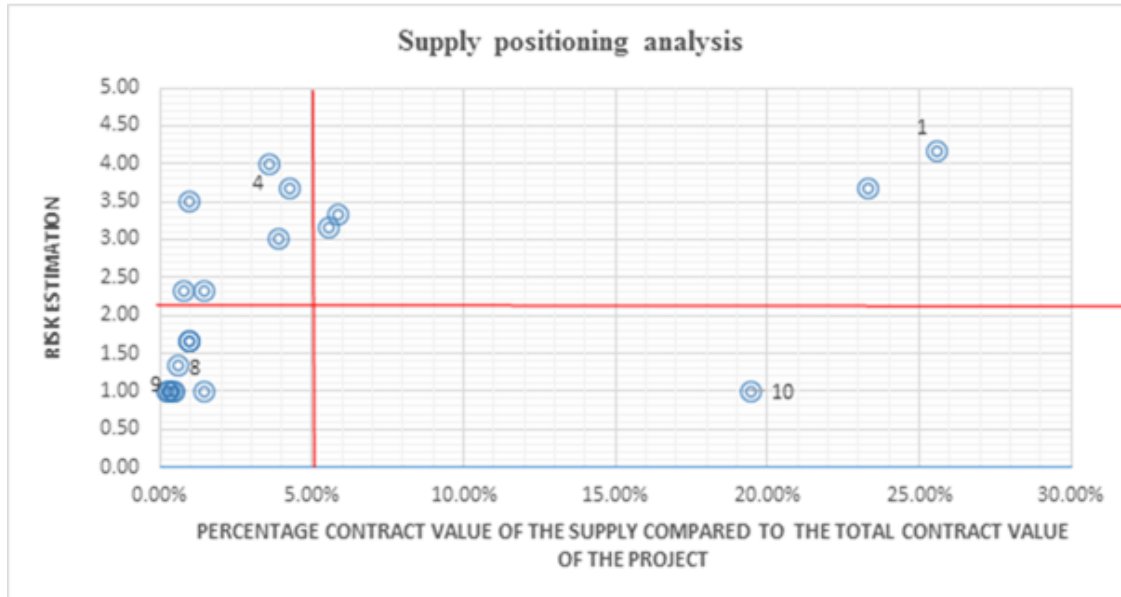
7. **Procurement risks analysis and mitigation:** Overall, the financial management and procurement environment in Iraq remains weak. Levels of mismanagement, fraud, lack of transparency exist, contributing to low levels of trust in government institutions. Main procurement risks are particularly inherent to: (i) weak capacity of the implementing agency in procurement and management of large contracts; (ii) high risk and weak control environment, as Haiti's ability to manage public resources is undermined by a volatile and sensitive environment, instability and outdated practices; (iii) Limited local market with a few regional/international bidders with the required experience may result in lesser competition and higher bid and consulting services prices; (iv) delays in implementation due to the overall context of conditions in Haiti; and v) delay in implementation from the Bidder's side and time/cost over-runs. Based on the overall assessment of the implementing agency and the information available on the procurement environment in Haiti, the overall procurement risk is judged to be High.

8. In this context, mitigation measures for governance issues have been built into the project design in the form of strict fiduciary control mechanisms and application of Bank fiduciary rules, as well as through targeted participatory and consultative mechanisms for project activities and a focus on social accountability. Intermediary mid-term review of the MLAs will be conducted to monitor whether progress towards mid-term goal will be achieved. The project will: (i) ensure that dedicated procurement specialists, with required experience in the new trends Bank procurement and policies, will be promptly appointed on an as-needed basis, and that the ability to provide capacity building is embedded within the PIUs; and (ii), include an annual procurement audit by an external auditor. Furthermore, it should be noted, that the PIU include fiduciary staff that have experience with Bank-financed operation.

9. **Market Analysis:** Owing to the economic conditions and instability of the country, the possibility of attracting big reputable international companies could be limited. The supply positioning aimed at determining the high and value contracts as shown below:



Figure 4.1: Analysis of markets' position



(The legend to the graphic describes the contracts to which the numbers refer)

In consideration of potential bidders, domestic providers will be given preference for some specific programs.” or as appropriate.

10. **Key procurement under the project:** The total value of the project is US\$55 million, of which 87 percent (US\$48.05 million) are high risk contracts. These contracts are comprised of procurement of work (US\$28 million), goods and non-consulting services (US\$13 million) and consulting services (US\$7.05 million).

The procurement contract table is shown in Table 4.1.

Table 4.1: Procurement Contracts

| Procurement type<br>(number of contracts) | Prior review High Risk<br>Contracts (US\$ million) | Percent of Total Value<br>High Risk Contracts (%) |
|---|--|---|
| Works (3)                                 | 28.00  | 58  |
| Goods and Non-Consulting Services (2)     | 13.00  | 27  |
| Consulting Services (4)                   | 7.05   | 15  |
| Total                                     | <b>48.05</b>                                       | 100   |

1) **Works:** Civil works anticipated under Component 1 to be implemented by the UCE under the MTPT include structural works for drainage, dredging and embankment protection, and works for *Bassin Rhodo, Ravine Belle-Hôteesse and Zetriye*, as well as huge execution construction works



related to resettling people in accordance with the Resettlement Action Plan (RAP) and ESIA. These works will be executed after completion of the technical drawings and their approved by the Bank technical team. As per Project Procurement Strategy Development, appropriate procurement methods will be selected and stated in the procurement plan.

2) **Goods and Non-Consulting Services:** Under Component 1, the project will finance a temporary compensation program to support resettlement under the RAP. Component 2 will support management and implementation of the subsidized sub-project investment program to build small municipal infrastructure assets and implement basic public services provision in five beneficiary MLAs.

3) **Selection of Consultants:** Components 1, 2 and 4 include consultancies for a supervisory engineering firm during execution of the *Bassin Rhodo* infrastructure works, as well as hiring two operators (MDOs) in charge of implementing and managing the subsidized sub-project investment program and the compensation program. As per PPSD, for high risk value contracts, appropriate procurement methods and market approach will be selected and mentioned in the procurement plan table 4.2 below

11. **Summary of the Procurement Plan:** As per PPSD, Table 4.2 below summarizes the key high risk value and Prior review contracts for the proposed project.

**Table 4.2: Procurement Summary**

| #        | Contract Description   | Budget Estimate (US\$ million) | Procurement method | Bank's Review (Prior / Post) |
|----------|--|--------------------------------|--------------------|------------------------------|
| <b>1</b> | <b>Works</b>   | <b>28.00</b>                   |                    |                              |
| 1.1      | Request for BID for the selection of Contractor for the execution of <i>Bassin Rhodo</i> works   | 13.15                          | RFB                | Prior                        |
| 1.2      | Execution of building construction works for 300 households  | 12.00                          | RFB via MDOD       | Prior                        |
| 1.3      | Request for BID (National) for the selection of Contractor for the execution of <i>Belle Hostesses</i> and <i>Zetriye</i> works        | 2.85                           | RFB                | Prior                        |
| <b>2</b> | <b>Goods and Non-Consulting Services</b>   | <b>13.00</b>                   |                    |                              |
| 2.1      | Execution of the compensation program through an operator  | 3.00                           | Via MDOD           | Prior                        |
| 2.2      | Execution of the subsidized sub-project investment program through an Operator   | 10.00                          | Via MDOD           | Prior                        |
| <b>3</b> | <b>Consulting Services</b>   | <b>7.05</b>                    |                    |                              |
| 3.1      | Hiring of Mobile Technical Team to provide technical assistance to MLAS to identify, prioritize and select their sub-projects, and for | 2.00                           | RFP                | Prior                        |



|       |  |              |      |       |
|-------|--|--------------|------|-------|
|       | capacity building in management and local governance   |              |      |       |
| 3.2   | Consultancy for engineering firm to conduct supervision during the execution of <i>Bassin Rhodo</i> infrastructure works                         | 2.85         | QCBS | Prior |
| 3.3   | Hiring of two operators (MDOs) in charge of implementing and managing the subsidized sub-project investment program and the compensation program | 2,2          | RFP  | Prior |
| Total |  | <b>48.05</b> |      |       |

12. **Procurement and Prior Review Thresholds:** The Procurement Plan shall set forth contracts, subject to the World Bank’s Prior Review for high risk environment. All other contracts shall be subject to Post Review by the World Bank.

**Table 4.3: Procurement Prior-Review Threshold**

| Spending category                   | Contract value threshold (US\$000) | Procurement method* | Contracts subject to prior review by the Bank |
|-------------------------------------|------------------------------------|---------------------|---|
| 1. Works                            | > 3,000                            | RFB                 | All   |
| 2. Goods                            | > 500                              | RFQ                 | All   |
| 3. Consultants<br>3. National Firms | > 300                              | QCBS / QBS          | >200  |

\* RFB: Request for Bids; RFQ: Request for Qualifications; QCBS/QBS: Quality and Cost-Based Selection/Quality-Based Selection



## ANNEX 5: ECONOMIC ANALYSIS

### COUNTRY : Haiti

#### Municipal Development and Urban Resilience Project

##### Introduction

1. This annex provides details of the approach of the economic analysis for the major investments under the Municipal Development and Urban Resilience Project to be implemented in Cap-Haïtien in Haiti. The Project Development Objective is to improve the delivery of resilient infrastructure and local services, and improve urban management in the metropolitan area of Cap-Haïtien. The metropolitan area of Cap-Haïtien is a very dense urban area with 3,481 inhabitants per square kilometer. Exposure to frequent torrential rains coupled with a deficit of flood management infrastructure makes the city highly vulnerable to floods. In this context, investment in adequate structural and non-structural measures are critical to ensure harmonious urban planning with an emphasis on flood management. This project is a response to the Government request and is in line with the Country Partnership Framework. Components 1 and 2 directly contribute to achievement of the Project Development Objective. Component 1 focuses on flood management targeting the most vulnerable areas of the city and ensures drainage through the integrated management of selected urban ravines. Component 2 supports investments in high-impact local infrastructure to ensure sustainable service delivery and provides for institutional strengthening and capacity building. Component 4 will indirectly support Components 1 and 2 by financing the costs associated with strengthening and developing the institutional capacity for project management, coordination, implementation, and monitoring and evaluation. Component 3 provides Contingent Emergency Response funds that can be rapidly mobilized to support the immediate response and recovery needs of the GoH. The project will globally benefit the populations of the six municipalities, including Cap-Haïtien (274,404 inhabitants), Limonade (55,145), Quartier Morin (27,359), Plaine du Nord (41,255), Acul du Nord (55,908), and Milot (31,992<sup>48</sup>), bringing the total beneficiary population to 486,063. Direct beneficiaries will be the urban residents of the five municipalities, and the population in the flood-risk areas of Cap-Haïtien, totaling 131,000 people.

2. The economic analysis focuses on quantifiable benefits under Components 1 and 2 with different approaches:

3. For Component 1, the specific sub-projects are determined. A full Cost-Benefit Analysis was developed following the methodology presented in a subsequent section.

4. For Component 2, the project will finance small-scale local infrastructure and service delivery, including rehabilitation of drainage facilities, public markets, public squares, and roads, etc. Since specific sub-projects to be financed will be selected through a demand-driven participatory process during the project, detailed sub-project selection will not have been completed at appraisal.

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<sup>48</sup> However, the urban population of these MLAs vary from around 8,000 to 25,000 (Limonade), illustrating that these are primarily rural areas with small urban centers, but MLAs that nevertheless grow rapidly.



## Projects Investments and Expected Benefits

### **Socioeconomic benefits:**

5. ***Improved urban drainage and flood risk management.*** Component 1 of the project will generate tangible socio-economic benefits from investments in improved urban ravines (ravines of Belle-Hôte and Zetriye) and flood mitigation management through the development/rehabilitation of selected resilient public infrastructure including: (i) Dredging works to improve the flow capacity of selected river and canal sections along the Rivière Haut du Cap and in *Bassin Rhodo*; and (ii) Stabilization of the river banks and the design and establishment of public spaces. These investments will result in: (i) reduction of property and urban infrastructure damage caused by floods in selected areas; (ii) reduction of interruptions in transport and related economic loss during flood periods; and (iii) reduced interruption of economic activity and reduction of associated economic losses. The investments will also boost the resilience and recovery of the construction and public work sub-sectors and contribute to poverty alleviation in targeted municipalities. Additionally, adequate drainage is associated with better hygiene in general and with improved control of mosquitos which are the main vector of several diseases including dengue, zika and chikungunya. Improved drainage also reduces the incidence of cholera and other diarrheal-related diseases. The investments in flood management will therefore lead to a reduction in health costs (private and public expenditures) associated with epidemics like dysentery, typhoid, cholera, and dengue fever. Furthermore, the incidence of death resulting from flood disasters in project intervention zones is expected to decrease with the project.

6. ***Improved urban and inter-municipal mobility and income-generating opportunities.*** Component 2 is expected to finance a number of labor-intensive sub-projects, such as rehabilitation of markets and public squares, and the provision of services such as local road maintenance, facilitating access to schools, markets and other businesses. The creation of economic opportunities will boost local incomes, and road rehabilitation is expected to improve inter-municipal connectivity, saving travel time and reducing vehicle operating costs. Enhancement of urban drainage will reduce risks of flooding and risk of spread of waterborne diseases. Additionally, it is expected that these investments will contribute to the creation of short term income-generating opportunities in project intervention areas through leverage effects and will catalyze the Government, participating municipalities and donors to envision and develop a more ambitious program of inter-municipal projects, building on the results and lessons learned from this operation.

7. ***Improved municipal fiduciary capacity.*** Technical assistance planned under the project (under all components) aimed at capacity building and institutional strengthening (financial and urban planning tools) are expected to strengthen municipal management and local fiscal performance in the six targeted urban municipalities of the metropolitan region of Cap-Haïtien. These activities will result in improved access to local public infrastructure and services, enhanced O&M of municipal infrastructure, and improved municipal responsiveness to urgent local needs.

### **B. Environmental benefits:**

8. Implementation of water restoration project activities for reduced water runoff, slope stabilization, canal cleaning and solid waste management are expected to yield significant



environmental benefits, including: reduced soil erosion in critical areas, reduced river pollution, increased vegetal cover along the targeted riversides, and increased preservation and restoration of coastal and marine ecosystem services, including biodiversity of the Rivière Haut du Cap.

9. While some of the abovementioned expected benefits are not quantifiable due to lack of usable data, the analysis predicts that positive socioeconomic and health outcomes expected from the project could benefit approximately 58,000 people living in the *Bassin Rhodo* area starting by the end of the project's major works.

### **Rationale for public provision and the Bank's value added**

10. Several benefits from flood protection are public goods in nature or are subject to externalities. As such, the private sector has no incentive to invest as the costs are private while the benefits are socially shared. Also, high transaction costs may prevent the private sector from stepping in. Without public sector support, these investments, though economically desirable, will not be carried out. The Bank financing will enable flood protection for around 58,000 people in Cap-Haïtien and will benefit nearly 500,000 people across the six MLAs. Based on its experience worldwide, the Bank is in the unique position to infuse lessons and good practices into flood management and institutional strengthening in Cap-Haïtien. Together with critically needed financial resources, the Bank is well positioned to transfer international expertise in urban planning, as this project design incorporated lessons drawn from similar Bank-financed projects. Bank intervention will ensure that adequate attention will be given to the sustainability of outcomes including operation and maintenance arrangements during implementation and after completion. Bank safeguards policies will ensure that social and environmental aspects, especially resettlement issues, are addressed appropriately. Further, the key objectives of the intervention are fully aligned with the Haiti Country Partnership Framework (CPF) for FY2016-2019, as it focuses on building resilience and reducing vulnerability through improved flood management.

### **Methodology and assumptions**

#### ***Economic Analysis for Component 1: Vulnerability Reduction and Climate Resilient Urban Infrastructure***

11. A Cost-Benefit Analysis (CBA) was conducted for investments in flood alleviation under subcomponent 1-1 Integrated management of the ravines *Belle-Hôtesse and Zetriye* and for the restoration of the storage capacity and drainage systems of the *Bassin Rhodo* under subcomponent 1-2 Investments in Flood Mitigation Management along the Rivière Haut du Cap and in *Bassin Rhodo* capturing the combined quantifiable expected benefits and related costs. The investments aim at protecting public and economic infrastructure and populations living in proximity of the Rivière Haut du Cap from flooding and associated damages through implementation of: (i) structural measures such as cleaning the river of solid waste and sediments, and stabilization of a selected portion of the river's banks; and (ii) non-structural measures consisting essentially of the development of an integrated flood management plan for the metropolitan area of Cap-Haïtien.

12. The CBA approach estimated benefits as avoided costs, including costs resulting from damage to public and private assets (e.g. public buildings and infrastructure, homes and businesses), and economic





losses to businesses that will have been incurred in the event of floods. The proposed estimates will help understand the relative flooding risk and related potential losses.

13. **Scope of work and data source.** Data and information for the CBA of the above two sets of investments was consolidated by the project team, covering: (i) cadastral records from the participating municipalities; (ii) historical flood data; (iii) implementation reports and studies from similar donor projects carried out in the country, government agency reports covering most of the project intervention areas, and other related documents from the participating municipalities; (iv) outputs from the hydrological models (Sobek and Telemac); and (v) data from a socio-economic survey on flood damage in targeted communities.

### Estimation of Benefits

14. **Investments in Flood Mitigation.** The benefits associated with flood mitigation management investments are broadly classified into two categories: tangible (direct and indirect) socio-economic benefits and intangible benefits. The CBA quantifies tangible benefits using the avoided damage cost method. These benefits are measured as the cost of flood damage that will occur without the project intervention. The tangible socio-economic benefits that could be quantified comprise avoided damage to residential properties and avoided economic losses in commercial areas. Economic losses were measured using the Average Annual Costs of floods for major recent floods. Following the economic analysis of other similar flood management projects, the Average Annual Costs were projected over a 20-year horizon, taking into account projected population and infrastructure growth. The counterfactual (situation without project) was built on the current situation.

15. A detailed socioeconomic study was conducted to capture the different dimensions of the project's tangible benefits<sup>49</sup> using a multipronged survey instrument. First, a household questionnaire was developed and applied to a stratified and randomized sample of 165 households in the project influence area. The study conducted face-to-face interviews to maximize response rate. The questionnaire consisted of various sections including basic socioeconomic information and flood damage information for two recent floods in 2014 and 2016. Damage costs include furniture replacement costs, costs for cleaning the house and the opportunity cost of the time spent repairing the damages, among other costs. Second, a vendor survey was carried out in one of the largest markets in Cap-Haïtien where second-hand clothes (*pepe*) are sold. This vast informal commercial area with nearly 2,500 vendors is subject to recurrent floods leading to substantial economic losses almost every year. In addition, approximately 1,500 women buy clothes at this market and resell it in a market at the border with the Dominican Republic. Other activities include several types of transportation that shuttle people to and from the market. Economic losses include damage to merchandise and lost days of economic activity. These losses mostly affect women who constitute the vast majority of the vendors. Third, different focus groups were organized with different groups to capture their differential impact on men and women. Also, a specific focus group was organized with local authorities to investigate flood damage to public infrastructure. Forth, a survey of the main medical centers of the project area was carried out to assess the impact of waterborne disease that may result from recurrent floods.

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<sup>49</sup> The detailed report of the study is in project files.



16. Other important tangible socio-economic benefits include the potential increase in tourism (which is one of the major economic activities in the Cap-Haïtien metropolitan area), reduced loss of school days, and reduced health costs from severe diseases like cholera and dengue fever. However, these benefits cannot be quantified because of an absence of reliable data and thus was not be included in the benefits assessment.

17. The net monetary benefits expected from activities financed under Component 1 are derived from the difference between the incremental benefits and the incremental costs of two scenarios: “with” and “without” project. The “with” project scenario considers the planned investments and the associated integrated flood management plan. It also relies on the outputs of hydrological models. The “without” project scenario is based on historical flood data and the outputs of hydrological models (flood risk maps) in the Urban Development and Climate Change Study.<sup>50</sup> Flood data suggest that at least one major flood occurs every year. Recent records show that one or more floods leading to substantial damages occurred in 2012, 2013, 2014 and 2016. Based on the estimated flood damage area, the estimated number of households in the area and flood damage per household, the flood damage was estimated at US\$1.86 million in November 2016. The assessment of the economic damage to commercial areas, based on the survey of the Zetriye second-hand clothes market, was estimated at US\$4.88 million in November 2016. This amount includes economic loss resulting from the loss of merchandise and the loss of activity of vendors who sell clothes directly in the Rue 0 market (US\$2.87); economic loss resulting from the loss of activity for vendors who buy clothes on the Rue 0 market and resell them at the cross-border market (US\$0.12); and the economic loss for transporters who transport vendors from the cross-border market to the Rue 0 market (US\$0.025).<sup>51</sup> Quantitative information on damage to public infrastructure was not available as there is no systematic assessment of this type of damage in the Cap-Haïtien. However qualitative information collected during focus groups show that several types of infrastructure are damaged during floods including roads, schools, and medical centers. For example, the medical center “Centre de Santé de Fatima” was closed for more than one month following the floods in November 2016 impeding timely access to health care for thousands of people living in Zetriye downstream area.

18. In the “without” project scenario, the annual average cost of flood damage is quantified at 2016 prices based on the inundation areas, the associated damage multiplied by the frequency. The findings are shown in Table 5.1 below. The estimated unit flood damage cost is US\$4.88 million per year.

**Table 5.1: Damage estimates for November 2016 floods**

| Damage Type   | Estimated Damage Cost (US\$ million) | As a percentage of total estimated damage costs (%) |
|---|--------------------------------------|---|
| Physical damages to residential properties (per household)                      | 1.86                                 | 38%   |
| Damage and loss of economic activities for vendors in Rue 0 market (per vendor) |                                      | 62%   |

<sup>50</sup> See also the report “Caractérisation et cartographie du risque inondation et de submersion marine sur l’agglomération du Cap-Haïtien”, Richard Guillaude, CIAT, 2015.

<sup>51</sup> Calculations are included in the report “Enquête Socioéconomique sur l’impact des inondations au Cap-Haïtien”, World Bank unpublished.



|   |       |      |
|---|-------|------|
| 6. Damage to merchandise  | 1.86  |      |
| 7. Loss of profit due to inactivity (27 days)                               | 1.01  |      |
| Loss of economic activities for vendors in Cross-Border market (per vendor) |       |      |
| Loss of profit due to inactivity  | 0.12  |      |
| Loss of economic activities for transporters                                | 0,025 |      |
| Loss of profit due to inactivity  |       |      |
| <b>Total</b>  | 4.88  | 100% |

***Economic Analysis for Component 2: Municipal Investment Support, Capacity Building and Strategic Planning***

19. Under Component 2.1, the project will provide financing to municipalities to improve local infrastructure and services delivery (e.g., rehabilitation of markets and public squares, road maintenance, etc.), with an emphasis on investments that strengthen municipal resilience. Specific activities will be determined following a demand-driven method during project implementation, with economic analysis serving as a screening tool in the selection of the municipal investments. A participatory selection process will be used to prioritize potential projects, from which a subset will be selected using Cost Effectiveness Analysis (CEA) as the most practical economic valuation technique. Projects selected will be (i) relatively small municipal and/or inter-municipal investments focused on achieving or maintaining basic municipal services, and (ii) investments where benefits cannot be easily monetized. Investments subject to CEA will only proceed if they are demonstrated to be the most cost-effective option available when compared to other similar projects.

The costs of the intervention include the following:

20. *Initial investment costs:* Estimated costs for Components 1 and 2 are US\$34 million and US\$15 million, respectively. However, the Cap-Haïtien MLA will only benefit from part of the support under Sub-Components 2.2 and 2.3. Component 4 costs are estimated at US\$6 million. While some costs under Components 2.2 and 2.3 and Component 4 will be affected to other MLAs, the cost estimate (US\$45.2 million) is considered to be conservative. The CBA is therefore based on 90 percent of the project total investment. The cost estimate includes about 10 percent provision for contingencies, plus investments in structural and non-structural measures. The former consist of cleaning the river and the canals of solid waste and sediment, as well as flood protection measures--such as stabilization of selected portions of the river banks and slopes--protection of critical infrastructure, and rehabilitation of selected sections of local roads and connecting points. Non-structural measures include interventions aimed at improving the capacity of institutions to reduce risks related to floods, such as: (i) preparation of an urban watershed management plan; (ii) development of an integrated flood management plan; and (iii) maintenance and cleaning of the cities' canals, drainage systems and roads within the MTPTC's at the department level and/or the municipality.



21. *Recurrent O&M costs:* Annual O&M costs, estimated at 1 percent of investment costs, were taken into account in the economic analysis.

22. In the baseline economic analysis, a return period of 1 year is considered for “without project” situation based on available flood records. A return period on 50 years is considered for the “with project” situation based on the project technical design (Table 5.2).

**Table 5.2: Assessment of flood damage in November 2016**

| Return Period               | Estimated Flood Damage and Economic Loss (US\$ million) |                  | Potential Net Benefits (US\$ million) |
|-----------------------------|---|------------------|---------------------------------------|
|                             | Without the Project                                     | With the Project |                                       |
| 1 year, for without project | 4.88  | 0.10             | 4.78                                  |
| 50 years, for with project  |   |                  |                                       |

**Economic Analysis Results**

23. The following main assumptions are considered in the economic computation.

- 8. Population growth of 5.25 percent is considered based on data from the Ministry of Planning and External Cooperation (MPCE). It is assumed that the growth will mainly affect flood-prone areas since there is little room for expansion.
- 9. The project will protect an estimated 58, 000 people living in flood-prone areas of the Rhodo basin and an additional estimated 10,842 living in flood-prone areas around *Ravine Zetriye and Ravine Belle-Hôte*.
- 10. The number of people per household is 5.18 (based on household survey<sup>52</sup>)
- 11. It is assumed that the project works will take five years and the benefits will materialize over 20 years.

24. Results of this analysis in terms of Economic Rates of Return (ERRs) and Net Present Values (NPVs) at different discount rate are summarized in Table 5.3 below.

**Table 5.3: Project economic performance under the baseline scenario**

| Discount rates                            | ERR (%)                    | NPV (US\$) |
|---|----------------------------|------------|
| Discount rate: 10%                        | 11.4                       | 4,581,621  |
| Discount rate: 6%                         | 11.4                       | 26,131,039 |
| Discount rate: 5%                         | 11.4                       | 34,342,065 |
| <b>Overall Project Economic Viability</b> | <b>Economically viable</b> |            |

<sup>52</sup> See report *Direction des Statistiques Démographiques et Sociales. Population Totale, Population de 18 ans et plus Ménages et Densités Estimés en 2015*



### Sensitivity Analysis

25. An analysis was conducted to test the sensitivity of the above estimated project economic indicators to a possible variation of benefits and costs. The analysis did not consider eventual climate effects which are likely to increase the project benefits. Results of this analysis are summarized in Table 5.4 below.

**Table 5.4: Sensitivity of economic Indicators (IRR and NPV)**

| IRR and NPV Sensitivity  | ERR (%)                                | NPV at 5% (US\$)          |
|--|--|---------------------------|
| 10% increase in investment costs                                   | 10.2                                   | 29,798,709                |
| 20% increase in investment costs                                   | 9.13                                   | 25,255,352                |
| 10% decrease in benefits   | 10.2                                   | 26,818,838                |
| 20% decrease in benefits   | 8.89                                   | 19,295,611                |
| 10% increase in investment costs and 10% decrease in benefits      | 9.02                                   | 22,275,482                |
| 10% decrease in the number of project beneficiaries. <sup>53</sup> | 10.9                                   | 31,327,809                |
| <b>Overall Project Economic Viability</b>                          | <b>Results show little sensitivity</b> | <b>Results are robust</b> |

26. The sensitivity analysis reveals that the project would remain viable under hypothesis of increased costs or decreased benefits of up to at least 20 percent, as suggested by its anticipated ERR above.

### Conclusion

27. The economic analysis was built on very conservative assumptions that underestimate the benefits. Several benefits could not be quantified, including:

- a) Benefits resulting from avoided damage to public infrastructure and facilities including schools, roads, markets, medical centers etc.;
- b) Benefits resulting from avoided damage to private businesses, such as the restaurants located along the *Ravines Zetriye and the Ravine Belle-Hôte*;
- c) Indirect economic losses along the value chain. For example, the economic losses of Dominican traders who export second-hand clothes from Cap-Haïtien are not taken into account;

<sup>53</sup> These are beneficiaries living around *Bassin Rhodo*.



- d) Benefits resulting from improved tourist attractions and more general environmental benefits from improved sanitation;
- e) Health benefits resulting from a reduction in cases of Cholera and other diarrheal diseases; and
- f) Number of lives saved from floods.

28. It is also important to mention that the project benefits will primarily benefit women through various channels. First, because women play a frontline role in managing flood consequences, they are more exposed to the resulting loss of economic activity and diseases including several types of infections.

29. Second, women are a major economic force in the Cap-Haïtien. As such, they endure the bulk of the adverse impact of floods on their businesses.

30. Additionally, the project will provide improved living conditions to people who will be resettled by providing enhanced housing in a location protected from floods. Awareness campaigns on hygiene will ensure a change of mindset and thereby contribute to improved solid waste management. Capacity building of municipalities will significantly contribute to their responsiveness to manage floods.

31. Despite the underestimation of the benefits, the analysis shows a robust ERR much higher than the opportunity cost of capital estimated at 5 percent<sup>54</sup> confirmed by a combination of sensitivity analyses. The project is therefore economically viable.

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<sup>54</sup> World Bank Guidance note on economic analysis in developing countries.





## ANNEX 6: SAFEGUARDS ACTION PLAN

1. According to the Bank's policy OP 10.00, in case of operations in countries affected by fragility, conflict and violence (FCV) and with capacity constraints, the Bank may provide support through investment project financing (IPF) under normal IPF policy requirements with the following exceptions for safeguards: The environmental and social requirements set out in the Bank's safeguard policies that are applicable during the project preparation phase may be deferred to the implementation phase. In such a case, deferred safeguard requirements must be set out in a Safeguards Action Plan to be annexed to the PAD.<sup>55</sup>

2. This Safeguards Action Plan includes: i) Planned project activities, locations, and general environmental and social baseline (as far as known), and the expected environmental and social impacts; ii) Sequencing and, if practical, tentative implementation schedule for environmental and social safeguard processing such as sub-project ESMPs, ESIA's and RAPS; iii) Preparation time for environmental and social safeguard instruments, including Bank review, revisions, clearance, and approval steps; iv) Disclosure and consultations; v) Roles and responsibilities, including supervision arrangements for safeguard preparation, implementation and monitoring; and vi) Estimated costs for the environmental and social safeguard preparation and implementation process.

### Project Activities and Locations

3. The project expects to receive US\$55.4 million, of which US\$48.4 million from IDA will aim to (i) reduce climate risks and urban flooding in the city of Cap-Haïtien; and (ii) improve the technical and financial capacity of six municipalities in the metropolitan area of Cap-Haïtien to plan, finance and deliver basic municipal services. The project would include, in summary, the following four components:

4. Component 1 - Vulnerability Reduction and Climate Resilient Urban Infrastructure will contribute to building urban resilience and reducing the effects of climate change by investing in flood mitigation infrastructure. An integrated urban watershed management approach is taken to reduce recurrent flooding in Cap-Haïtien, focusing on the historical and commercial center where all the main roads of Cap-Haïtien intersect. This component addresses the two main causes of flooding in the city of Cap-Haïtien: (i) a dysfunctional system of ravines, in particular Belle-Hôte's and Zetriye; (ii) and the insufficient discharge capacity of the Rivière Haut du Cap. The proposed structural and non-structural framework build on results from several detailed technical and hydrological studies undertaken in the course of project preparation,<sup>56</sup> as well as damage assessment of several floods that occurred in the project's intervention areas during the last few years. The overall expected impact of the intervention is a significant improvement of the ravines system, dramatically reducing the occurrence of flooding in the

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<sup>55</sup> OP10.00: Special Considerations; para. 11. Projects in Situations of Urgent Need of Assistance or Capacity Constraints. In cases where the borrower/beneficiary is deemed by the Bank to: (i) be in urgent need of assistance because of a natural or man-made disaster or conflict; or (ii) experience capacity constraints because of fragility or specific vulnerabilities (including for small states); the Bank may provide support through Investment Project Financing under normal Investment Project Financing policy requirements with the following exceptions: The fiduciary and environmental and social requirements set out in OP/BP 4.01, OP/BP 4.10, OP/BP 4.11, OP/BP 4.12, BP 10.00, and OP/BP 11.00 that are applicable during the Project preparation phase may be deferred to the Project implementation phase.

<sup>56</sup> See Annex 1 for details.





two targeted ravines, and a significant reduction of the flood depth in a large area all around the Rivière Haut du Cap. This Component includes the following sub-components: Component 1.1: Slope stabilization, sediment removal in urban ravines; Component 1.2: Desilting and dredging an urban waterway.

5. Component 2 – Municipal Investment Support, Capacity Building and Strategic Planning will support the six MLAs of the Cap-Haïtien metropolitan region to enable them to plan, finance, and manage resilient infrastructure and deliver local services in urban areas through a combination of investment support and capacity building initiatives. The Component will also support MLAs to ensure that local plans are developed and implemented in accordance with a coherent strategic metropolitan development framework and the risk profile of each municipality. The component will be implemented on the basis of three key principles: (i) The importance of participation of communities in decision-making as part of ensuring more sustainable outcomes and enhancing the social contract in local governance; (ii) Supporting MLAs in building capacity through a learning-by-doing approach, enabling their key staff through systematic and regular capacity support interventions and providing them with financial support to roll out development projects; and (iii) promoting accountability through a project Memorandum of Understanding (MoU) signed by each Mayor and the MICT Minister, with clearly established responsibilities and targets. This component includes the following sub-components:

- Component 2.1: Provide municipalities with a line of financing to implement municipal demand-driven sub-projects, e.g., sanitation, drainage, markets, roads, public squares, etc.
- Component 2.2: Strengthen the capacity of municipalities for management, administration, investment implementation, planning, safeguards management and mobilization of local revenues;
- Component 2.3: Improved land use planning and spatial management, taking disaster risk and climate change into account.

6. Component 3 – Contingent Emergency Response aims to respond rapidly at the Government's request in the event of an eligible disaster, including climate-related events. This component will finance the execution of emergency infrastructure reconstruction, rehabilitation and associated studies (Emergency Response Activities). Disbursements will be made against a pre-established list of critical goods or the procurement of goods, works, and consultant services required to support the immediate response and recovery needs of the GoH. Emergency response activities will be subject to environmental and social procedures laid out in the Environmental and Social Management Framework (ESMF) and Resettlement Policy Framework (RPF) prepared under Component 1.

7. Component 4 – Project Management and Implementation Support will finance the costs associated with strengthening and developing the institutional capacity for project management, coordination, implementation, and monitoring and evaluation, as well as costs associated with supporting the project implementing agencies.

***Potential Environmental and Social Impacts/Risks***



8. Activities planned under Component 1 should also have significant positive impacts, including (i) flood reduction for 58,000 beneficiaries, and improved tidal movement and water quality (e.g., dissolved oxygen, reduced temperature) in the *Bassin Rhodo*, and (ii) improved soil, flora and fauna conditions in the ravines on the hills surrounding Cap-Haïtien through soil stabilization activities. However, some potentially negative impacts have been identified, and include: (i) involuntary resettlement of households on either side of the *Bassin Rhodo* outlet to the sea, (ii) the production, transport and disposal of large amounts of sediment, and solid waste from households, of variable quality; (iii) impacts associated to dredging, driving sheet-piles and construction (noise, dust, vibration, traffic disruption), (iv) potential impacts on physical cultural resources; and (v) the loss of some mangroves in the *Bassin Rhodo*.

9. The Government has hired an international consulting firm to prepare an Environmental and Social Impact Assessment (ESIA) and a Resettlement Action Plan (RAP) for Component 1 of the project, to be finalized after the current stage of project preparation in order to ensure that environmental and social impacts are managed sustainably before any works can start. The ESIA and RAP are being prepared in compliance with national law and World Bank safeguard policies. A first round of public consultations was carried out for the ESIA and RAP in February 2017 and a second round of consultations is planned in April-May 2017.

10. A Preliminary Social Risk Assessment was carried out for the World Bank in May-July 2016 by a locally-based international NGO (Centre for International Studies and Cooperation, CECI) to evaluate the potential risks and opportunities related to resettlement along the *Bassin Rhodo* outlet. The study concluded on the feasibility of acquiring 15 meters from the left bank of the *Bassin Rhodo* outlet, which is mainly occupied by social housing, and recommended minimizing land takes on the right bank of the outlet due to higher risk of social tensions. The study highlighted the challenges related to resettling households from the *Bassin Rhodo* outlet due to limited availability of land in Cap-Haïtien. It also raised concerns regarding potential legacy issues related to previous resettlement operations conducted by local authorities over the past few years in the downtown area. The study recommended further consideration of three resettlement options for the *Bassin Rhodo* outlet: (i) in situ resettlement; (ii) relocation of affected households and businesses close to the airport; or (iii) relocation of affected households and businesses close to the new Industrial Park area in Limonade. National and local authorities have expressed support for each of these strategies and have identified a potential additional in situ resettlement site occupied by an abandoned CARE warehouse on the right bank of the *Bassin Rhodo* outlet.

11. Activities envisaged under Component 2 will mostly have positive impacts. However, it is anticipated that upgrading of local market facilities, improvement of local roads, drainage, development of open spaces, rehabilitation of inter-municipal roads, etc. may result in limited environmental and social impacts, including construction impacts (noise, dust, traffic, potential damage to historic buildings), environmental health and safety (EHS) impacts, etc., and resettlement impacts. These will be managed by applying an Environmental and Social Management Framework (ESMF) and a Resettlement Policy Framework (RPF) that have been prepared by the Government in compliance with national and Bank standards, and that were discussed with local stakeholders in public consultations in six municipalities of the Cap-Haïtien region in February-March 2017.



12. Risks linked to labor influx are expected to be limited. They will be mitigated by prioritizing local labor and ensuring clarity on where laborers coming from outside will be hosted through their stay in the host community and ensuring that contracts are consistent with ESMP provisions.

### ***Consideration of Alternatives***

13. Numerous alternatives were explored during preparation. Under Component 1, alternatives were explored as regards location of project implementation, length and width of dredging the canal and sediment disposal options. The guiding principle of Component 1 has been, since the time of project identification, to only fund interventions that significantly reduce flooding, this having been identified as the principal risk in the metropolitan area. Alternatives that did not address this risk were rejected. Under Component 2, alternatives are still open, as communities and municipalities will determine which activities to finance, on a participatory basis, during implementation.

14. The technical studies that have been carried out during preparation (bathymetric charting, hydrological modeling, erosion and sedimentation, dredging, sediment sampling and analysis, solid waste study, etc.) have identified several different alternatives for the project.

### ***Project approach to addressing environmental and social safeguard issues***

15. During preparation, the Haitian government (Ministry of Public Works, Transport and Communication (MTPTC)) and the respective municipalities worked with the Bank to identify the priority areas of intervention based on urban population density and hydrology. The project was designed around two main components, which are geographically and technically distinct. For Component 1, a full ESIA and RAP are in the process of being finalized and for Component 2, this Framework approach was adopted.

#### **A - Component 1**

16. *ESIA and RAP (in preparation)*. An ESIA and RAP are under preparation for Component 1. Preparation was substantially delayed due to capacity constraints compounded by political transition and Hurricane Matthew (a Category 4 hurricane), which caused damages and losses equivalent to 22 percent of GDP and absorbed much of Government's attention and already limited capacity through early 2017. Taken together, these factors caused extensive delays in project preparation. The Government's slow contracting and delivery of key technical studies delayed the preparation of the Resettlement Action Plan (RAP) and the Environmental and Social Impact Assessment (ESIA) for Component 1. The verification of land tenure status and socio-economic surveys for the RAP have been slow and are still ongoing. Though drafts of the RAP and ESIA for Component 1 became available at the end of March 2017, a further study is also needed to adequately inform environmental safeguards documents for the disposal of sediments from dredging operations. Appropriation by Government and civil society of all of these elements requires an extensive consultation process which is essential to project success. Completion of all instruments is expected by the end of 2017 (see Table 6.1).



**Table 6.1. Indicative Timeline for Delivery of ESIA and RAP for MDUR**

| Activity   | Timeline           | Responsibility |
|--|--------------------|----------------|
| Start of C.2 implementation  | July 2017          | MTPTC / MICT   |
| Completion of additional studies and Revised Draft ESIA and RAP (C.1.) submitted for World Bank review | September 2017     | MTPTC / BRL    |
| Revised Draft ESIA and RAP (C.1.) submitted for RSA approval   | September 2017     | WB             |
| Disclosure and in-country consultation on Revised Draft ESIA and RAP (C.1)                             | Sept.-October 2017 | MTPTC          |
| Final ESIA and RAP (C.1) submitted for World Bank review   | October 2017       | MTPTC / BRL    |
| Final ESIA and RAP (C.1) submitted for RSA approval  | October 2017       | WB             |
| Final round of comments on the ESIA and RAP (C.1) if needed  | November 2017      | WB             |
| Final ESIA and RAP (C.1) disclosed on World Bank website and in-country                                | Nov.-December 2017 | MTPTC / WB     |
| Implementation of ESIA and RAP (C.1)   | December 2019      | MPTPTC / WB    |

**B - Component 2**

17. *ESMF and RPF.* The ESMF and RPF have been prepared by the Government in compliance with Bank requirements, and were disclosed on the World Bank’s website on May 9, 2017 and in-country on May 17, 2017.

18. The environmental and social workflow and implementation arrangements will include the following steps:

- Step 1: Consultation with affected groups;
- Step 2: Apply screening checklist as part of ESMF/RPF;
- Step 3: Preparation of ESMP (or simple mitigation measures) and/or RAP; and
- Step 4: Review and clearance of safeguard instruments by project.

By UCP and the World Bank:

- Step 5: Disclosure of safeguard instruments;
- Step 6: Implementation of agreed mitigation/compensation actions; supervision and reporting.

19. The following strategic approach to addressing these steps has been devised:

- Step 1 – Consultation with affected groups: The Project team will conduct consultations with the affected communities and other related stakeholders during project implementation in municipalities to inform beneficiaries of project activities, opportunities to participate, potential adverse short-term impacts, and the grievance redress mechanism available to them. Furthermore, dissemination of information and feedback will continue as part of the implementation of the project’s activities. Project



activities—line of credit, capacity building, land use planning—all rely on initial information and sensitization campaigns, followed by community consultations. Once sub-project sites and locations are precisely determined, people affected by land acquisition or involuntary resettlement will be consulted in a more detailed manner on compensation and resettlement policies in accordance with the RPF.

- Step 2 – Screening checklist: For Component 2, the implementing agency is the UCP of the Ministry of the Interior (MICT). However, as the MICT has no environmental or social unit, all safeguards aspects will be carried out by the implementing agency for Component 1 (UCE-MTPTC). The UCE has prepared the ESMF and RPF, which includes a screening checklist for potential environmental and social impacts. As part of the consultation process, the implementing agency will work with the relevant municipality as part of its participatory process in selecting sub-projects in applying the criteria in the checklist, and will produce mitigation measures for each impact identified.
- Step 3 – Preparation of safeguard instruments that cover environmental and social impacts:
  - Sub-project ESMPs: ESMPs will be prepared during implementation by the UCE-MTPTC staff together with municipalities, meeting the Bank’s requirements to enhance the positive impacts and address the adverse impacts, following the guidance of the ESMF. As part of ESMPs for sub-projects, the general measures will be translated into standard environmental and social specifications to be incorporated into the bidding and contract documents. Environmental and social issues under ESMPs may include community health and safety, workers’ health and safety, labor influx, and communication with local community, among others.
  - Sub-project RAPs: The works that will be funded under Component 2 are unknown. Once these sites are identified, Resettlement Action Plans (RAP) or Abbreviated Resettlement Action Plans (ARAPs) will be prepared, consulted and disclosed for each activity, as needed, in accordance with the policy. Any compensation or livelihood restoration efforts that may be needed will be completed prior to commencement of the works.
- Step 4 – Review and clearance of safeguard instruments: Any issues raised in public consultations will be addressed as set out in the ESMF and RPF. ESMPs and RAPs will need to be reviewed and cleared by the environmental and social safeguards specialist and the Task Team Leader will provide the no-objection.
- Step 5 – Disclosure of safeguards instruments: Any plans produced under the umbrella documents (ESMPs and RAPs) will be disclosed on the World Bank’s website and in-country.
- Step 6 – Implementation of agreed actions, supervision and reporting: Safeguards documents will be included in all bidding documents and in all awarded contracts. The RPF, ESMF, ESMP and RAP will be sent to local authorities and relevant organizations for implementation. The MICT and MTPTC will be responsible for supervising the implementation of these documents and reporting to the World Bank as an element of normal project reporting requirements. The environmental and social capacity of the UCE-MTPTC project team has been largely adequate; it consists of an environmental/social lead specialist and two social specialists. UCE-MTPTC staff is familiar with the Bank’s safeguards policies after attending several training workshops organized in-country and implementing numerous projects.

### ***Implementation Arrangements and Capacity Building***



20. Overall project implementation will be the responsibility of the Ministry of Interior and Local Authorities (MICT) in conjunction with the Ministry of Public Works, Transport and Communications (MTPTC) and the Municipal Local Authorities (MLAs). Activities under Component 1 will be implemented by the *Unité Centrale d'Exécution* (UCE) under the MTPTC and the beneficiary MLAs. Proposed activities under Component 2 will be implemented by the *Unité de Coordination de Projets* (UCP) under MICT and MLA guidance and oversight. The UCE-MTPTC will carry out safeguards requirements for UCP-MICT, as the latter has no environmental or social unit or experience.

### ***Project Grievance Mechanism***

21. Well-functioning Grievance Redress Mechanisms (GRM) are critical for effective project implementation. A communication strategy will be put in place by MICT and MTPTC to inform stakeholders about specific environmental and social issues raised by the project and available local grievance mechanisms (e.g., to explain project components, eligibility for compensation, mitigation measures planned, etc.). Sub-project information will be available at sub-project sites to provide practical information about grievances to local residents. Local grievance mechanisms will be put into place to handle complaints related to resettlement processes and to construction and dredging activities throughout the life of the project. Complaints will be received in verbal or written form and will be addressed directly by the PIU in collaboration with local authorities, resettlement implementation entities, contractors, and the construction supervision engineer.

22. Local stakeholders will also be informed about the Bank's Grievance Redress Service (GRS) and that project affected communities and individuals may submit their complaints to the Bank's independent Inspection Panel, which determines whether harms occurred, or could occur, as a result of Bank non-compliance with its safeguards policies and procedures. This information on GRS and the Inspection Panel will be shared with project beneficiaries.

### ***Cost Estimation***

23. The UCE-MTPTC will be responsible for calculating the cost for ESMP and RAP preparation and implementation in conformity with requirements of the ESMF and RPF prepared for Component 2. UCE-MTPTC will collaborate with local authorities to calculate land acquisition and compensation rates, if any. The estimates for any land acquisition will then be validated by the *Comité de Paiement à l'Amiable* (CPA), the designated government authority in charge of land acquisition and compensation of acquired land.

24. It is not possible at this point to determine the exact amount of grant financing that might be used for environmental and resettlement expenditures, as sub-projects under the project (Component 2) have yet to be identified and as the final RAP and ESIA have not yet been completed. Indicative cost estimates have been provided in table 6.2.



**Table 6.2. Indicative Cost Estimates for environmental and social safeguard implementation**

| <b>Estimated costs (US\$)</b>   |                   |
|---|-------------------|
| Additional studies for ESIA and RAP (Contract Addendum)   | 260,000           |
| Resettlement costs (C.1) including compensation, livelihood restoration, construction of replacement housing and recruitment of a resettlement implementation entity (international firm and local NGO) | 16,000,000        |
| Environmental offsets for loss of mangroves   | 100,000           |
| M&E, Workshops, Training, etc.  | 200,000           |
| <b>TOTAL</b>  | <b>16,560,000</b> |



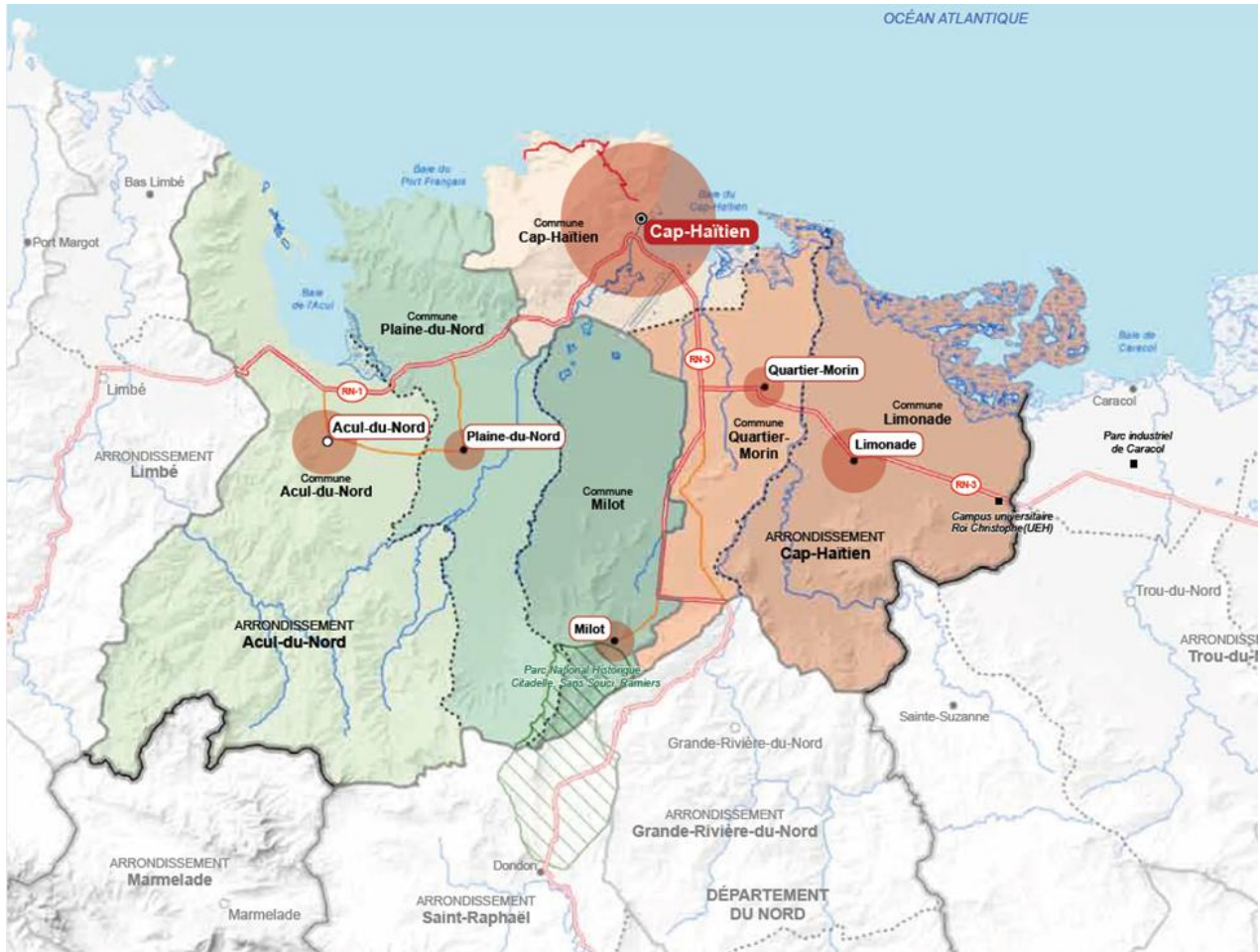


ANNEX 7: MAPS OF THE PROJECT AREAS

COUNTRY: Haiti

Municipal Development and Urban Resilience Project

Figure 7.1: Target municipalities of MDUR<sup>57</sup>



<sup>57</sup> Ministry of Planning and External Cooperation (MPCE), *Esquisse du Schéma d'aménagement du pôle Cap-Haitien*, 2013.





**Figure 7.2: Satellite photograph of the River Haut du Cap and the City of Cap-Haïtien<sup>58</sup>**



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<sup>58</sup> Source: DigitalGlobe