

## TC DOCUMENT

### I. Basic Information for TC

▪ Country/Region:	HAITI
▪ TC Name:	Water Availability in the Southern Coast
▪ TC Number:	HA-T1207
▪ Team Leader/Members:	Corinne Cathala (INE/WSA), Team Leader; Carlos Faleiro and Denis Gravel (WSA/CHA); Fernando Miralles and Irene Cartin (INE/WSA); Louis-Francois Chrétien (LEG/SGO); Andy Drumm (VPS/ESG); Bruno Jacquet (INE/RND); Jose Luis Irigoyen (CDH/CDH); and Romina Emanuela Kirkagacli (FMP/CHA)
▪ Indicate if: Operational Support, Client Support, or Research & Dissemination	Operational Support
▪ If Operational Support TC, give number and name of Operation Supported by the TC:	Supports operation HA-L1095 "Sustainable Coastal Tourism Program"
▪ Date of TC Abstract authorization:	February 25, 2015
▪ Beneficiary (countries or entities which are the recipient of the technical assistance):	Republic of Haiti
▪ Executing Agency and contact name	IDB (INE/WSA, Carlos Faleiro)
▪ Donors providing funding:	AQUAFUND
▪ IDB Funding Requested:	US\$500,000
▪ Local counterpart funding, if any:	No
▪ Disbursement period (which includes Execution period):	24 months
▪ Required start date:	April 2015
▪ Types of consultants (firm or individual consultants):	Firms and individuals
▪ Prepared by Unit:	INE/WSA
▪ Unit of Disbursement Responsibility:	WSA/CHA
▪ TC Included in Country Strategy:	Yes
▪ TC included in CPD:	Yes
▪ GCI-9 Sector Priority:	(i) Supports small and vulnerable countries; (ii) contributes to poverty reduction; and (iii) supports environmental sustainability

### II. Description of the Associated Operation

- 2.1 The National Tourism Master Plan (NMTP) addresses the national priority of creating wealth and employment through a regionally-based approach to sustainable

development on the Southern Coast<sup>1</sup> of Haiti and benefit flows to Low Income Population (LIP), while improving management effectiveness of the tourism sector. The Bank is supporting this initiative with a recently-approved US\$20 million investment grant (Tourism Program in Haiti - HA-L1092). The objective of this operation is to increase tourism employment and income for local population and low income segments of the population on the Southern Coast. In order to achieve its objective and consistency with the challenges identified, the program will finance two components: (i) enhancement of the tourism products; and (ii) tourism governance and capacity building. The program is part of a phased implementation of the NMTP<sup>2</sup>.

- 2.2 The program design features three key elements: (i) a phased approach to tourism, which promotes economic benefits derived from tourism, increasing gradually over time through the development of tourism products to boost competitiveness and attract private sector investment; (ii) a product differentiation consistent with the results of the demand analysis; and (iii) ensuring that the benefits of the program accrue to LIP.
- 2.3 Given the incipient nature of tourism in Haiti, and particularly on the Southern Coast, tourists are most likely to extend their stay and, therefore, increase their daily expenditures in locations where there is already a concentration of tourism attractions and access and services are matched to their expectations in the cities such as Les Cayes, Port Salut and Aquin. The portion of the coast extending from Aquin to Côte de Fer has less than 5% of accommodations, although large scale resorts are under discussion, gradually preparing the ground for the possibility of future expansion, taking into account environmental and social sustainability considerations. However, the flow of benefits to local LIP depends critically on public sector policies and inclusive measures that result in increased participation in the tourism value chain. The value chain analysis identified a number of areas with a high potential for increasing tourism development and the income of LIP in the region such as the sale of arts, crafts, souvenirs, and improving the heritage sites, and the richness of the experience tourists derive from these sites can increase income and government revenues. There is a potential for creative partnerships between the public and private sectors to develop the investments and skills required to put Haiti back on the map as a quality competitive tourist destination.

### **III. Objectives and Justification of the TC**

- 3.1 The Strategic Plan for the Development for Haiti (PSDH) sets tourism as a pillar for the country's economic recovery.<sup>3</sup> On the Southern Coast of Haiti, between Cotes-de-Fer and Aquin, the Ministry of Tourism (MT) has defined the *Zone d'aménagement eco-touristique intégré 1* (ZAEI 1), which consists of eight sections and a ninth section in the mountainous area called "La Baliene".
- 3.2 With respect to the first development phase, Section 4 of the ZAEI 1 was selected, for which four factors were taken into account: (i) road accessibility; (ii) availability of a

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<sup>1</sup> In the context of this program, the South Coast is defined as the area between Côte de Fer and Port-à-Piment within the South Department.

<sup>2</sup> Updated in 2012 with Bank's support (ATN/SF-11643-HA).

<sup>3</sup> Strategic Plan for the Development of Haiti, 2012.

large plain area with a flat topography; (iii) presence of panoramic views; and (iv) bays and beautiful long beaches. This section is located at the center of the tourist corridor and is the largest section of the whole ZAEI 1, and is expected to attract private investments for the development of the sector.

- 3.3 The primary objective of this Technical Cooperation is to assess current and future water availability and the environmental sustainability for the development of the above-mentioned project: (i) with the implementation of the findings and recommendations of the existing studies carried out at the end of 2014; (ii) with the development of an Integrated Water Resources Management (IWRM) plan; and (iii) to serve as a pilot project for future programs to assess water availability within the MT. One of the main aspects includes water availability.
- 3.4 Existing studies indicate that fresh groundwater is available in two aquifers of the Bwa Dom valley and Pastwalet areas. An exploratory drilling program is required to substantiate the availability, quantity and quality of groundwater resources in these areas. The characterization of the aquifers will be carried out using specific models to assess water demand versus water availability and will take into account a detailed analysis of potential users in the watershed. Additional aspects will include the quality of the resource, different uses of the freshwater and preferred treatment to improve water quality. These aspects need to be assessed before the definition of the investments in order to guarantee the viability of the investments. Partnership and integration with the local agriculture industry is critical to avoid undesirable side effects to the resources as well as involvement of local authorities during the process.
- 3.5 This TC is consistent with the Bank's Country Strategy for Haiti for 2011-2015 (GN-2646), which sets the water and sanitation sector as a priority sector. It is also included in the 2015 Haiti Country Program Document. The operation is also aligned with the lending targets of: (i) small and vulnerable countries; (ii) poverty reduction and equity enhancement; and (iii) climate change, sustainable energy and environmental sustainability included in the report of the ninth general capital increase (GCI9) of the Bank.

#### **IV. Description of Activities/Components and Budget**

##### **4.1 Major Components and Activities**

##### **4.2 Component I. Groundwater assessment (US\$410,000)**

- a) **Activity 1. Contracting of the drilling company and supervision firm (US\$350,000).** This activity will include: (i) the contracting of a local company to perform exploratory drilling of eight wells to assess water resources of Section 4 of ZAEI 1; (ii) well development by air surging and/or air-lift pumping; (iii) well-testing, including pumping test, hydrochemistry and water quality test; and (iv) the contracting of supervision of drilling activities, casing and screening assembly.
- b) **Activity 2. Water resources assessment (aquifer modeling) (US\$60,000).** This activity will result in a comprehensive water resources assessment, including groundwater aquifers model, ground water recharge analysis, modeling, a water balance and

groundwater storage. The activity will include: (i) rainfall sampling; and (ii) preparation of the aquifer model.

- 4.3 **Component II. Integrated Water Resources Management Plan (US\$90,000).** This component will consist of the preparation of an IWRM plan in the area selected as a source of freshwater<sup>4</sup>. The main studies which have to be carried out are as follows: (i) population and community characterization; (ii) water supply and demand analysis; (iii) economic activity and environmental impact analysis; (iv) modeling the specific impact of the Ministry of Tourism project (the proposal from Grupo Punta Cana); (v) a modeling scenario consisting of using the available water for irrigation/intensive high-value added crops, which is another pillar of economic recovery in the *Plan Strategique de Developpement d'Haiti*; (vi) compilation of existing data; (vii) hazard assessment; (viii) model scenarios of future development and climate change, and water management action plan; and (ix) implementation of the plan.

**Table 1. Indicative Results Matrix**

	Base line 2015	Target 2015	Target 2016	Target 2017	End	Means of Verification
<b>Outputs</b>						
<b>Supervision report completed</b>	0	0	1	0	08/31/2016	Supervision Report
<b>IWRM plan prepared</b>	0	0	0	1	04/30/2017	IWRM plan
<b>Outcomes</b>						
<b>Program prepared according to specifications of the study and IWRM plan financed by the TC operation</b>	0	0	0	1	04/30/2017	Supervision report

- 4.4 The total amount of the TC operation will be US\$500,000 from the Ordinary Capital of the Bank (Aquafund-OC). The required resources by component are detailed in Table 2 below:

<sup>4</sup> The IWRM will focus on the areas of Bwa Dom and Paswalet valleys.

Table 2- <u>Indicative Budget</u> (US\$)				
Activity/ Component	Description	IDB/Fund Funding	Counterpart Funding	Total Funding
<b>Component I. Groundwater assessment</b>		<b>410,000</b>	<b>0</b>	<b>410,000</b>
	Contracting of the drilling company and supervision firm for drilling activities	350,000	0	350,000
	Water resources assessment	60,000	0	60,000
<b>Component II. Integrated Water Resources Management Plan</b>		<b>90,000</b>	<b>0</b>	<b>90,000</b>
	Preparation of an IWRM plan	90,000	0	90,000
<b>TOTAL</b>		<b>500,000</b>	<b>0</b>	<b>500,000</b>

- 4.4 INE/WSA will be responsible for the supervision and execution, through WSA/CHA. The monitoring of the execution of the TC will be carried out through participation in meetings with DINEPA, MT and the Bank. External consultants will be contracted to assist with the supervision, if necessary.

#### V. Executing Agency and Execution Structure

- 5.1 Given the time constraints to execute this TC in association with the grant operation, the Government of Haiti (GOH) has requested that the Bank execute the TC (as stated in the CPD document GN-2805). The Bank will be responsible for the execution of the TC activities and its supervision. The Bank will ensure that the government agencies involved such as DINEPA and the MT are part of the decision-making process throughout the execution of the TC. The TC is included in the Haiti CPD for 2015 (GN-2805).
- 5.2 The Bank will contract individual consultants, consulting firms and non-consulting services in accordance with Bank's current procurement policies and procedures (GN-2349-9 and GN-2350-9). However, it is important to indicate that for the selection and contracting of goods and services, suggestions and/or recommendations from the government agencies involved will be taken into account in order to ensure a greater ownership during the follow up and implementation of consultancies' results. As provided under paragraph 3.10 (a) and (d) of GN 2350-9, a direct contracting is contemplated for the hiring of the consulting firm V3 Companies & Northwater International that will carry out the execution of the drilling activities in Component I. This firm was contracted in late 2014 and has performed the existing studies very satisfactorily, providing a quality product on time and within budget. Its hiring will provide continuity to the process since very few firms have this kind of expertise and this consulting firm has an office in Haiti. In addition, the investment project is already under preparation and evaluation and it is, therefore, urgent that the firm be contracted. Finally, given that there is no market for this service in Haiti, a call for bids would give worse results than a proper negotiation process with the sole potential bidder.
- 5.3 Investment expenditures of this TC represent 60% of total Bank-financed expenditures and exceeds the general rule of the proposal for a new Bank policy on TC – Revised version (paragraph 2.10 of document GN-2470-2), which establishes that such expenditures should not exceed 30% of total Bank-financed expenditures, unless such expenditures are

reasonable and critical to obtain the TC objectives. This TC's investment expenditures are reasonable and critical to obtain the TC's objectives as justified in [IDBdocs39600065](#).

## **VI Major Issues**

- 6.1 As the exploratory program will be based on findings from a previous consultancy, the primary risk in the execution of this TC is that the consulting firm questions the quality of the available data, of the existing studies and/or potential misinterpretation of the geophysical data). This risk will be mitigated through the contracting of the same consulting firm which will carry out the assessment of water resources in the area under study. An additional risk consists of a potential lack of commitment from the government agencies involved, which include DINEPA and the MT. The creation of a Steering Committee is contemplated to monitor the contracting of consultants and the execution of the TC in which the IDB will participate and will help mitigate that risk

## **VI. Exceptions to Bank policy**

- 7.1 No exception to Bank policies is requested.

## **VII. Environmental and Social Strategy**

- 8.1 Given that the TC will be financing studies as well as exploratory drilling and pumping tests of four wells over the TC execution period, minimal negative impacts are expected during execution and no impact is expected on the aquifers<sup>5</sup>, as a result, this TC will receive the environmental classification "C". In order to mitigate potential negative impacts associated with the exploratory drilling, the team will prepare a management plan for the drilling company in order to ensure proper use of the equipment and safety of workers ([IDBdocs39505338](#)).

### **Annexes:**

- I. The TC is included in the Haiti CPD for 2015 (GN-2805)
- II. [Procurement Plan](#)
- III. [Terms of Reference](#)

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<sup>5</sup> In the existing studies, the pumping equipment required for the pumping test is 80 USGpm at 500 feet, which means 436 m3/day. Three exploratory drilling sites are foreseen in the Bwa Dom valley and it is expected that 1,308 m3 will be pumped up. According to the existing studies, "7 million m3/year of renewable groundwater are potentially available" out of which 3.4 million m3/year correspond to the Bwa Dom watershed. With respect to the Pastwalet area, one drilling site is foreseen with the pumping of 436 m3 and renewable groundwater resources are 0.94 million m3/year. Therefore there is no risk that the aquifer be depleted as a result of the exploratory drilling.

# **WATER AVAILABILITY IN THE SOUTHERN COAST**

**HA-T1207**

## **CERTIFICATION**

I hereby certify that this operation was approved for financing under AquaFund (AQF) through a communication dated March 23, 2014 and signed by Felipe Caicedo (ORP/GCM). Also, I certify that resources from said fund are available for up to **US\$500,000** in order to finance the activities described and budgeted in this document. This certification reserves resources for the referenced project for a period of six (6) calendar months counted from the date of eligibility from the funding source. If the project is not approved by the IDB within that period, the reserve of resources will be cancelled, except in the case a new certification is granted. The commitment and disbursement of these resources shall be made only by the Bank in US dollars. The same currency shall be used to stipulate the remuneration and payments to consultants, except in the case of local consultants working in their own borrowing member country who shall have their remuneration defined and paid in the currency of such country. No resources of the Fund shall be made available to cover amounts greater than the amount certified herein above for the implementation of this operation. Amounts greater than the certified amount may arise from commitments on contracts denominated in a currency other than the Fund currency, resulting in currency exchange rate differences, for which the Fund is not at risk.

*(original signed)*

5/14/2015

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Sonia M. Rivera  
Chief  
Grants and Cofinancing Management Unit  
ORP/GCM

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Date

## **APPROVAL**

Approved:

5/19/2015

*(original signed)*

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Sergio Campos  
Division Chief  
Water and Sanitation Division  
INE/WSA

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Date