

Document of
The World Bank

FOR OFFICIAL USE ONLY

Report No: PAD767

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED GRANT FROM THE INTERNATIONAL DEVELOPMENT ASSOCIATION
IN THE AMOUNT OF SDR 32.4 MILLION
(US\$ 50 MILLION EQUIVALENT)

AND A

PROPOSED GRANT FROM THE STRATEGIC CLIMATE FUND
IN THE AMOUNT OF US\$ 8 MILLION

TO THE

REPUBLIC OF HAITI

FOR THE

CENTER AND ARTIBONITE REGIONAL DEVELOPMENT PROJECT

April 15, 2014

*Sustainable Development Department
Haiti Country Management Unit
Latin American and the Caribbean Region*

This document is being made publicly available prior to Board consideration. This does not imply a presumed outcome. This document may be updated following Board consideration and the updated document will be made publicly available in accordance with the Bank's policy on Access to Information.

CURRENCY EQUIVALENTS

(Exchange Rate Effective: March 31, 2014)

Currency Unit = Haitian Gourdes (HTG)
HTG 44.3506 = US\$ 1
US\$ 0.648 = SDR 1

FISCAL YEAR

October 1 – September 30

ABBREVIATIONS AND ACRONYMS

BDIP	Business Development and Investment Project (P123974)
BRH	<i>Banque de la République d'Haïti</i>
CAL	Center Artibonite Loop
CASEC	<i>Conseil d'Administration de la Section Communale</i>
CBO	Community-Based Organization
CERC	Contingent Emergency Response Component
CIAT	Inter-Ministerial Committee for Territorial Development
CIAT-es	CIAT's Executive Secretariat (<i>Secrétariat Technique du CIAT</i>)
CIDA	Canadian International Development Agency
CIF	Climate Investment Funds
CNE	<i>Centre National des Equipements</i>
CNIGS	<i>Centre National de l'Information Géo-Spatiale</i>
CPIA	Country Policy and Institutional Assessment
CTD	<i>Conseil Technique Départemental</i>
DA	Designated Account
DR	Dominican Republic
DRM	Disaster Risk Management
DRMR	Disaster Risk Management and Reconstruction Project (P126346)
EMP	Environment Management Plan
Energy Project	Rebuilding Energy Infrastructure and Access Project (P127203)
ESMF	Environmental and Social Management Framework
EU	European Union
FCS	Fragile and Conflict-Afflicted State
FER	<i>Fonds d'Entretien Routier</i> (Road Maintenance Fund)
FM	Financial Management
GDP	Gross Domestic Product
GoH	Government of Haiti
Health Project	Improving Maternal and Child Health Through Integrated Social Services (P123706)
HFY	Haiti Fiscal Year
IBRD	International Bank for Reconstruction and Development
IDB	Inter-American Development Bank
IDA	International Development Association
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
IFR	Interim un-audited Financial Report
IMT	Intermediate Means of Transport
IPF	Investment Project Financing
IRR	Internal Rate of Return

ISN	Interim Strategy Note
M&E	Monitoring and Evaluation
MARNDR	Ministry of Agriculture, Natural Resources and Rural Development
MEF	Ministry of Economy and Finance
MICT	Ministry of the Interior and Local Authorities (<i>Collectivités Territoriales</i>)
MPCE	Ministry of Planning and External Cooperation
MSME	Micro, Small and Medium Enterprise
MTPTC	Ministry of Public Works, Transportation, Energy and Communications
NPV	Net Present Value
OFID	OPEC Fund for International Development
O&M	Operation and Maintenance
ONPES	<i>Observatoire National de la Pauvreté et de l'Exclusion Sociale</i>
OP/BP	Operational Policy / Bank Procedure
OPEC	Organization of Petroleum Exporting Countries
PaP	Port au Prince
PDO	Project Development Objective
PIU	Project Implementation Unit
PPF	Project Preparation Facility
PPCR	Pilot Program for Climate Resilience
PRODEP	Haiti Community-Driven Development Project (P093640)
PROReV (or EBRVRP)	Emergency Bridge Reconstruction and Vulnerability Reduction Project (P114292)
PRUII (or IIERP)	Infrastructure and Institutions Recovery Emergency Project (P120895)
PSDH	2010 Strategic Plan for the Development of Haiti
PTDT	Transport and Territorial Development Project (P095523)
RAI	Rural Access Index
RAP	Resettlement Action Plan
RED	Roads Economic Decision Model
RESEPA I	Strengthening the Management of Agricultural Public Services (P113623)
RESEPA II	Relaunching Agriculture: Strengthening Agriculture Public Services II (P126744)
RMS	Road Management System
RPF	Resettlement Policy Framework
SA	Social Assessment
SCF	Strategic Climate Fund
SDR	Special Drawing Rights
SOE	Statement of Expenses
SPCR	Strategic Program for Climate Resilience
UCE	<i>Unité Centrale d'Exécution</i> from MTPTC
UTE	<i>Unité Technique d'Exécution</i> from MEF
VOC	Vehicle Operating Cost
WB	World Bank
WBG	World Bank Group
WDR	World Development Report

Regional Vice President:	Hasan A. Tuluy
Country Director:	Mary Barton-Dock
Sector Director:	Ede Jorge Ijjaz-Vasquez
Sector Manager:	Aurelio Menendez
Sector Manager:	Anna Wellenstein
Sector Manager:	Laurent Msellati
Task Team Leader:	Pierre Xavier Bonneau / Van Anh Vu Hong

HAITI
Center and Artibonite Regional Development Project

TABLE OF CONTENTS

	Page
I. STRATEGIC CONTEXT	1
A. Country Context.....	1
B. Situations of Urgent Need of Assistance or Capacity Constraints	2
C. Sectoral and Institutional Context.....	2
D. Higher Level Objectives to which the Project Contributes	4
II. PROJECT DEVELOPMENT OBJECTIVE	5
A. Project Development Objective (PDO)	5
B. Project Beneficiaries	5
C. PDO Level Results Indicators.....	5
III. PROJECT DESCRIPTION	6
A. Project Components.....	6
B. Project Financing	8
C. Lessons Learned and Reflected in the Project Design.....	9
IV. IMPLEMENTATION	10
A. Institutional and Implementation Arrangements	10
B. Results Monitoring and Evaluation	10
C. Sustainability.....	11
V. KEY RISKS AND MITIGATION MEASURES	12
VI. APPRAISAL SUMMARY	12
A. Economic Analysis	12
B. Technical.....	13
C. Financial Management.....	13
D. Procurement	14
E. Social (including Safeguards).....	14
F. Environment (including Safeguards).....	16

Annex 1: Results Framework and Monitoring	17
Annex 2: Detailed Project Description.....	21
Annex 3: Implementation Arrangements	33
Annex 4: Operational Risk Assessment Framework (ORAF).....	45
Annex 5: Implementation Support Plan	50
Annex 6: Project Economic and Financial Analysis.....	52
Annex 7: Haiti’s Pilot Program for Climate Resilience (PPCR)	56
Annex 8: Map	58
Table 1: Project Cost and Financing.....	9
Table 2: Risk Ratings Summary Table	12
Table 3: Results Framework and Monitoring	17
Table 4: Description of the Indicators of the Results Framework and Monitoring	19
Table 5: Implementation Responsibilities per Component.....	34
Table 6: Project Cost and Financing (per Component and Subcomponent)	35
Table 7: Disbursement Categories for IDA and CIF Grants.....	38
Table 8: Summary Procurement Plan for the First 24 Months of Project Implementation.....	39
Table 9: Thresholds for Procurement Methods and Prior Review *.....	41
Table 10: Development of Safeguard Instruments	43
Table 11: Skills Mix Required.....	51
Table 12: Project Partners.....	51
Table 13: NPV, IRR and Financial Investment Costs	54
Table 14: Sensitivity Analysis (NPV, IRR).....	55
Table 15: PPCR Core Indicators Informed by the Indicators Proposed for the Project.....	57
Box 1: Road Maintenance in Haiti	26
Box 2: Climate Change Adaptation and Disaster Risk Management in Haiti	56
Map 1: Haiti.....	58
Map 2: Road and Market Intervention Areas	59
Map 3: Agriculture Potential in the CAL Region.....	60

PAD DATA SHEET

Haiti

HT Center and Artibonite Regional Development (P133352)

PROJECT APPRAISAL DOCUMENT

LATIN AMERICA AND CARIBBEAN

LCSTR

Report No.: PAD767

Basic Information			
Project ID P133352	EA Category B - Partial Assessment	Team Leader Pierre Xavier Bonneau	
Lending Instrument Investment Project Financing	Fragile and/or Capacity Constraints [X]		
	- Fragile States		
	Financial Intermediaries []		
Project Implementation Start Date 01-Sep-2014		Project Implementation End Date 31-Aug-2019	
Expected Effectiveness Date 31-Aug-2014		Expected Closing Date 28-Feb-2020	
Joint IFC No			
Sector Manager Aurelio Menendez	Sector Director Ede Jorge Ijjasz-Vasquez	Country Director Mary A. Barton-Dock	Regional Vice President Hasan A. Tuluy
Borrower: Ministry of Economy and Finance, MEF			
Responsible Agency: Unite Technique d' Execution (UTE)			
Contact: Telephone No.: (509) 3701-3646	Michael De Landsheer	Title: Email: mdelandsheer@ute.gouv.ht	Executive Director
Safeguards Deferral (from Decision Review Decision Note)			
Will the review of Safeguards be deferred? [] Yes [X] No			
Project Financing Data(in USD Million)			
[] Loan	[X] Grant	[] Guarantee	
[] Credit	[X] IDA Grant	[] Other	

Total Project Cost:	58.00	Total Bank Financing:	50.00						
Financing Gap:	0.00								
Financing Source		Amount							
BORROWER/RECIPIENT		0.00							
IDA Grant		50.00							
Strategic Climate Fund Grant		8.00							
Total		58.00							
Expected Disbursements (in USD Million)									
Fiscal Year	2015	2016	2017	2018	2019	2020	0000	0000	0000
Annual	3.00	7.00	13.00	20.00	14.00	1.00	0.00	0.00	0.00
Cumulative	3.00	10.00	23.00	43.00	57.00	58.00	0.00	0.00	0.00
Proposed Development Objective(s)									
The objectives of the Project are to: (a) support the development of the Centre Artibonite Loop region, primarily by enhancing all-weather connectivity and logistics for producers, and the region's resilience to climate change; and (b) support the Recipient's capacity to respond promptly and effectively to an Eligible Emergency, as needed.									
Components									
Component Name							Cost (USD Millions)		
Enhancing Logistics, Transport Connectivity and Climate Resilience							37.00		
Improving Infrastructure and Management Capacity of Markets							10.00		
Supporting the Development of Regional Knowledge, Planning Capacity and Local Participation							6.00		
Contingent Emergency Response Component							1.00		
Project Implementation, Monitoring and Evaluation							4.00		
Institutional Data									
Sector Board									
Transport									
Sectors / Climate Change									
Sector (Maximum 5 and total % must equal 100)									
Major Sector			Sector		%	Adaptation Co-benefits %		Mitigation Co-benefits %	
Transportation			Rural and Inter-Urban		56	25		25	

	Roads and Highways			
Transportation	Urban Transport	12		
Public Administration, Law, and Justice	Central government administration	10		
Public Administration, Law, and Justice	Public administration-Transportation	8		
Agriculture, fishing, and forestry	General agriculture, fishing and forestry sector	14		
Total		100		

I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.

Themes

Theme (Maximum 5 and total % must equal 100)

Major theme	Theme	%
Rural development	Rural services and infrastructure	60
Social protection and risk management	Natural disaster management	15
Urban development	Other urban development	15
Public sector governance	Other public sector governance	10
Total		100

Compliance

Policy

Does the project depart from the CAS in content or in other significant respects?	Yes []	No [X]
Does the project require any waivers of Bank policies?	Yes []	No [X]
Have these been approved by Bank management?	Yes []	No [X]
Is approval for any policy waiver sought from the Board?	Yes []	No [X]
Does the project meet the Regional criteria for readiness for implementation?	Yes [X]	No []

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	X	
Natural Habitats OP/BP 4.04	X	
Forests OP/BP 4.36		X
Pest Management OP 4.09		X
Physical Cultural Resources OP/BP 4.11		X
Indigenous Peoples OP/BP 4.10		X

Involuntary Resettlement OP/BP 4.12		X	
Safety of Dams OP/BP 4.37			X
Projects on International Waterways OP/BP 7.50			X
Projects in Disputed Areas OP/BP 7.60			X
Legal Covenants			
Name	Recurrent	Due Date	Frequency
Road Maintenance Centers	X		CONTINUOUS
Description of Covenant			
The Recipient shall have the road maintenance centers established or to be established in Hinche, Mirebalais and Saint Michel staffed and equipped in a manner satisfactory to the Association throughout the duration of the Project.			
Name	Recurrent	Due Date	Frequency
Update List of Eligible Roads to FER	X		CONTINUOUS
Description of Covenant			
The Recipient shall, throughout the duration of the Project, periodically add the roads which are rehabilitated under Part A.1 of the Project to the subsequent updated list of eligible roads under the Road Maintenance Fund.			
Name	Recurrent	Due Date	Frequency
Appointment of Auditor		31-Dec-2014	
Description of Covenant			
The Recipient shall appoint an independent auditor with terms of reference and qualifications acceptable to the Association, in accordance with the provision set up in the Financing Agreement, Schedule 2, Section III, by not later than four (4) months as of the Effective Date.			
Conditions			
Source Of Fund	Name	Type	
CSCF	Cross-Effectiveness Condition	Effectiveness	
Description of Condition			
The SCF-PPCR Grant Agreement (TF 17021) has been executed and delivered and all conditions precedent to the effectiveness or to the right of the Recipient to make withdrawals under said SCF-PPCR Grant Agreement (other than the effectiveness of this Agreement) have been fulfilled.			
Source Of Fund	Name	Type	
IDAT	ESMF and RPF	Effectiveness	
Description of Condition			
The Recipient has prepared, adopted and disclosed, in form and substance satisfactory to the Association, the Environmental and Social Management Framework (ESMF) and Resettlement Policy Framework (RPF).			

Source Of Fund	Name	Type	
IDAT	Project Operations Manual	Effectiveness	
Description of Condition			
The Recipient has adopted, in form and substance satisfactory to the Association, the Operations Manual.			
Source Of Fund	Name	Type	
IDAT	Regional Road Maintenance Strategy	Disbursement	
Description of Condition			
No withdrawal shall be made under Category (1)(a) unless and until the Recipient has adopted the regional road maintenance strategy and guidelines referred to in Part A.3(a) of the Project in form and substance satisfactory to the Association.			
Source Of Fund	Name	Type	
IDAT	Operations Manual for the Contingent Emergency Response Component	Disbursement	
Description of Condition			
No withdrawal shall be made under Category (4), for Emergency Expenditures under Part D of the Project, unless and until the Association is satisfied, and notified the Recipient of its satisfaction, that all of the conditions set up in the Financial Agreement, Schedule 2, Section IV, Part B(c), (i) through (iv), have been met in respect of said activities.			
Team Composition			
Bank Staff			
Name	Title	Specialization	Unit
Jean-Claude Balcet	Consultant	Consultant	AFTA1
Prosper Nindorera	Senior Procurement Specialist	Senior Procurement Specialist	LCSPT
Pierre Olivier Colleye	Senior Microfinance Specialist	Senior Microfinance Specialist	LCSAR
Aboubacar Magassouba	Consultant	Consultant	LCSPT
Theresa Kay Osborne	Senior Infrastructure Economist	Senior Infrastructure Economist	LCSSD
Victor Manuel Ordonez Conde	Senior Finance Officer	Senior Finance Officer	CTRLN
Ghada Youness	Senior Counsel	Senior Counsel	LEGLE
Nyaneba E. Nkrumah	Sr Natural Resources Mgmt. Spec.	Senior Natural Resources Mgmt. Spec.	LCSEN
Ana F. Daza	Language Program Assistant	Language Program Assistant	LCSDU
Fabienne Mroczka	Financial Management Specialist	Financial Management Specialist	LCSFM

Aude-Sophie Rodella	Economist	Economist	LCSP
Christophe Frederic Robert Grosjean	E T Consultant	Agriculture Specialist	LCSAR
Michel Matera	Senior Disaster Risk Management Specialist	Senior Disaster Risk Management Specialist	LCSDU
Pierre Xavier Bonneau	Senior Infrastructure Specialist	Task Team Leader	LCSTR
Peter F. B. A. Lafere	Social Development Specialist	Social Development Specialist	LCSSO
Pablo Facundo Cuevas	Economist	Economist	LCSP
Eli Weiss	Rural Dev. Economist	Rural Development Economist	LCSAR
Licette M. Moncayo	Program Assistant	Program Assistant	LCSTR
Margaret Patricia Henley Barrett	Consultant	Operations Officer	LCSDU
Van Anh Vu Hong	Urban Development Specialist	Co Task Team Leader	LCSDU
Josue Akre	Financial Management Specialist	Financial Management Specialist	LCSFM
Isabel Kreisler Moreno	Consultant	Consultant	LCSDU
Djeanane Monfort	Team Assistant	Team Assistant	LCC8C
Malaika Becoulet	Consultant	Consultant	LCSTR

Non Bank Staff

Name	Title	Office Phone	City

Locations

Country	First Administrative Division	Location	Planned	Actual	Comments
Haiti	Ouest	Departement de l'Ouest	X		Investments in and for the benefit of Titanyen
Haiti	Nord	Nord	X		Investments in and for the benefit of North Department
Haiti	Centre	Centre	X		Investments in and for the benefit of Centre Department
Haiti	Artibonite	Departement de l'Artibonite	X		Investments in and for the benefit of Artibonite Department

I. STRATEGIC CONTEXT

A. Country Context

1. With a GDP per capita of US\$771 (2012) and its label of “the poorest country in the Americas”, Haiti is today recovering from the devastating earthquake of January 2010 and striving to develop new sources of growth for its economy. Regional development holds significant potential for the country in its drive toward growth and more even distribution of economic activity across the territory.
2. In addition to causing over 200,000 deaths and a major setback to the economy, the 2010 earthquake deepened already existing vulnerabilities and demonstrated the downside of highly centralized economic activity. Damages and losses were estimated at US\$7.9 billion (120 percent of GDP) and reconstruction needs at US\$11.3 billion. The economy contracted by 5.4 percent that year, reversing the modest growth trend of the 5 preceding years. Four years later, more than half of the population (56.5 percent) remain in poverty, and 38 percent live in extreme poverty. Unemployment remains high and employment mostly informal (only 19 percent of the adult population receives a regular wage and 79 percent is self-employed, with women twice as likely to be unemployed at 36 percent as opposed to men at 19 percent). Working conditions are precarious and incomes are low. While Haiti’s GDP is highly concentrated in PaP, the provinces are unevenly developed, often severely lacking in basic infrastructure and services and showing the highest poverty rates, ranging from 56 percent in the Artibonite Department compared with 38 percent in the West Department (where PaP is located). Faced with multiple challenges, roughly one million Haitians have migrated over the years, mainly to the Dominican Republic (DR), the United States (US), and Canada. The earthquake also highlighted Haiti’s vulnerability to natural disasters, with about 96 percent of the population living in areas at high risk to multiple natural hazards, and 40 percent concentrated in the five cities at greatest risk.
3. The overall economy is now gradually improving. Since 2011, the Government has been working with Haiti’s partners, including the private sector, to deliver development results for its people and decentralize the economy. Growth is estimated to have increased from 2.8 percent in Haitian Fiscal Year 2012 (HFY12) to 4 percent in HFY13, mainly due to a pick-up in agricultural production, construction and the industrial sector, in particular the textile and garment industry. The Government of Haiti (GoH) has started a national tuition waiver and school feeding program and launched several safety net programs. Security indicators are improving with downward trends in homicides, kidnappings, and incidents of violent civil unrest in 2013 when compared with 2012. Despite substantial residual challenges, Government efforts aim to improve the investment climate and encourage entrepreneurship, as well as public private partnerships for infrastructure. The GoH set territorial, economic, social, and institutional rebuilding as the key framework for Haiti’s development in the *2010 Strategic Plan for the Development of Haiti* (PSDH). With more investment in human capital, a better business environment, decentralized investments in physical infrastructure and its maintenance, and increased connectivity for rural producers to markets and services, Haiti’s regions have the potential to grow and serve as a platform for longer-term development.
4. The territorial pillar described in the PSDH refers to the “*refondation territoriale*” concept, defined as rebalancing economic activities across the national territory with the aim of

“uniting the country through a convergence in living standards”¹. Subsequently, the Inter-Ministerial Committee for Territorial Development (CIAT), through its Executive Secretariat (CIAT-es), was tasked with developing a strategic vision to reshape the economic geography of the country, which was developed in the *Haiti Tomorrow* report of 2010. As a strategic region, the GoH intends to develop the Center and the Artibonite Departments in a consolidated way that unleashes their potential to: (i) contribute to economic growth, generate jobs and host growth poles; (ii) improve food security through agricultural production; (iii) absorb demographic growth; and (iv) serve as an attractive region for public and private sector investments. This plan was further developed by CIAT-es through broad local consultations and further analytical work, and outlined in the *Haiti Tomorrow: The Center Artibonite Loop, Territorial Goals and Strategies for Reconstruction* report (2011). The proposed Project supports the GoH’s larger objective of diversifying the country’s sources of growth and decentralizing its economy by promoting investment in regions outside the capital and builds on the 2011 *Haiti Tomorrow* plan for developing the Center Artibonite Loop (CAL) by financing key investments that have the potential to unleash the latent growth of the region.

B. Situations of Urgent Need of Assistance or Capacity Constraints

5. Haiti is classified by the Bank as a Fragile and Conflict-Affected State (FCS), with a Country Policy and Institutional Assessment (CPIA) rating of 2.90, and the presence of a United Nations (UN) peace-keeping force for over nine consecutive years. Given this, the proposed Project is processed invoking the Special Considerations of OP 10.00. Accordingly, on an exceptional basis, the environmental and social safeguard instruments are deferred to implementation. A time-bound safeguard action plan has been developed for this Category B Project, with the Environmental and Social Management Framework (ESMF) and the Resettlement Policy Framework (RPF) to be completed by Project Effectiveness.

C. Sectoral and Institutional Context

6. ***The Center Artibonite Loop at a Glance.*** The CAL region lies between three areas of relatively high economic activity: PaP to the South, the DR to the East, and Cap Haïtien and the North Department to the North. It hosts a population of about 1.2 million inhabitants, 23 percent of which live in urban centers, over a total territory of 4,643 km². The perimeter of what is called the “loop” is 240 km long, and is equidistant (24 km away) from 10 urban centers. While the Center and Artibonite Departments have high economic and agricultural potential, poverty rates are amongst the highest in the country, and vulnerability to natural hazards and climate change presents major challenges. The CAL region hosts the Valley of the River Artibonite (one of the largest watersheds in Haiti) and the mountainous chain, both contributing to the diversity of microclimates and geographic exposure. Isolation of communities and lack of connectivity are major constraints to the development of the region. Despite some efforts to build roads and transport infrastructure, many areas with agricultural potential remain largely inaccessible.

7. ***Agriculture.*** Agriculture is a major source of growth for the Haitian economy, and is the core sector driving development of the CAL region. The sector accounts for 25 percent of GDP and occupies about 50 percent of total employment.² The Artibonite Valley is one of Haiti’s

¹ World Development Report (WDR) 2009: Reshaping Economic Geography (World Bank 2009c).

² 66 percent of jobs in rural areas, and 75 percent of jobs in low-income households.

main agricultural resources, especially for rice and mango, and the Central *Plateau* has strong potential in sugar cane, congo peas, poultry and cattle. Nevertheless, the overall importance of agriculture has declined due to a loss of productivity resulting from depletion of natural resources, limited access to services, land tenure insecurity, costly access to markets, weak public institutions, and an extreme vulnerability to climate change and natural hazards. To recover and increase production, the GoH is planning large investments, such as in irrigation and micro-parks in the CAL region, with financial support from various donors including the Inter-American Development Bank (IDB), the International Fund for Agricultural Development (IFAD), the European Union (EU), and PetroCaribe. The Bank and the Ministry of Agriculture, Natural Resources and Rural Development (MARNDR) are currently exploring the possibility of expanding activities of the Bank-funded RESEPAG I and II Projects to the CAL region. These two projects finance the delivery of vouchers for the private provision of agriculture services, and matching-grants to increase agricultural productivity and lower post-harvest losses. Markets, which play a critical role for the exchange of goods, are still in very poor conditions in terms of infrastructure, hygiene, and governance. Strengthening them would increase the traded volume and contribute to improving food safety.

8. ***Business Development.*** Haiti has a comparative advantage and a growth potential in certain sectors, such as food exportation (e.g. fruit and vegetables, rice), textile, and mining. However, the conditions are not sufficiently stable to attract private sector investments: poor physical infrastructure, poor business environment marked by contradictory and outdated regulations, lack of access to finance, of links to stable value chains, and of skills for an atomized Micro, Small and Medium Enterprises (MSMEs) sector. The challenge is to develop an attractive investment environment, encouraging investors (foreign or domestic, and MSMEs), and stimulating their interest in investing in specific zones where they would be assured clear land tenure, basic infrastructure, and policies that are conducive to investment.

9. ***Transportation & Connectivity.*** Roads remain the primary mode of transportation for both people and goods, and infrastructure investments remain critical to Haiti's medium and long term social and economic development. With about 80 percent of traffic by land, Haiti has a limited network,³ which suffers from a lack of maintenance, and from the impacts of climate change and variability,⁴ and entire regions remain isolated during the rainy season. The Bank has been supporting the transport sector nationwide since 2006, with a particular focus on critical spot interventions and on strengthening road maintenance country system to improve resilience and protection of assets. Transport connectivity must be improved to facilitate economic and agricultural trade dynamics, including (i) a functioning structural network of primary and secondary roads to ensure access to internal and external markets; and (ii) all-weather rural roads linking production, processing sites and local markets. A reliable road network would also lower transportation costs and facilitate greater accessibility to social services for rural and peri-urban communities, including the delivery of aid and access to health services during emergencies. In the case of Haiti, it would also have a significant positive gender impact.

10. ***Climate Change Adaptation and Disaster Risk Management (DRM).*** Haiti has undertaken a number of initiatives over the last dozen years to respond to the threats posed by adverse natural events and climate change and variability. The Bank has been supporting the

³ About 3,400 km: 700 km of national roads, 1,500 km of departmental roads, and 1,200 km of tertiary roads.

⁴ Precipitation, storms, flooding and cyclones are most destructive to transport infrastructure.

GoH in its efforts to develop and implement long term DRM plans, especially since 2005. Most recently, as part of the Climate Investment Funds' (CIF) Pilot Program for Climate Resilience (PPCR), a US\$25.0 million Strategic Program for Climate Resilience (SPCR) was developed by the GoH through CIAT-es (designated as the focal point for the national PPCR) with support from the Bank and the IDB, to respond to the assertion that climate change is not exclusively an environmental problem, but an inherent challenge to Haiti's sustainable development. The proposed Project will receive a US\$8.0 million PPCR grant in co-financing to finance the climate-proofing of infrastructure in the CAL, corresponding to one of the four priority SPCR Investment projects. More details can be found in Annex 7.

D. Higher Level Objectives to which the Project Contributes

11. ***Ending extreme poverty.*** The Project aims to build better living conditions, services and job opportunities in a region where over half of the population live in extreme poverty – this percentage even goes beyond 60 percent in certain areas.⁵ The region is particularly vulnerable given its exposure to recurrent adverse natural events and the resulting harsh conditions affecting people's health, economic activity and access to services including transportation.

12. ***Promoting shared prosperity.*** The Project aims to support the Government in uniting the country through a convergence of living standards, promoting growth and spurring economic activity outside PaP where the wealth is currently concentrated. It will support the GoH in establishing a framework and the foundational key infrastructure necessary to attract public and private investments outside PaP, in an area where only 20 to 25 percent of the population live on more than US\$2 per day.

13. ***Reducing vulnerability to climate change.*** The Project also aims to strengthen the resilience of infrastructure and communities in the CAL region, as a direct application of the SPCR program. The overall objective of that program is to reduce vulnerability to climate change in target regions experiencing different levels of risks, while forecasting the consequences and impacts of climate change on key sectors of the national economy and strengthening the resilience of both rural and urban communities in the target regions.

14. ***Consistency with the Partnership Strategy.*** The proposed Project is fully consistent with the current World Bank Group's Haiti Interim Strategy Note (Report No. 71885-HT) discussed by the World Bank (WB) Executive Directors on September 27, 2012. The Strategy defines the program of the second tranche of the US\$500 million allocated to Haiti in response to the 2010 earthquake from the IDA16 Crisis Response Window. Its overarching objective is to support the GoH in implementing sustainable post-earthquake reconstruction and shift from emergency to development, with a focus on: (i) reducing vulnerability and increasing resilience; (ii) encouraging sustainable reconstruction; (iii) building human capital; and (iv) promoting inclusive growth. The proposed Project will particularly contribute to achieving the strategic objectives (i) and (iv). Furthermore, it aims to strengthen Government capacity, which is a cross-cutting theme emphasized by the Strategy.

⁵ *Observatoire National de la Pauvreté et de l'Exclusion Sociale* (ONPES), 2011.

II. PROJECT DEVELOPMENT OBJECTIVE

A. Project Development Objective (PDO)

15. The objectives of the Project are to: (a) support the development of the Center Artibonite Loop region, primarily by enhancing all-weather connectivity and logistics for producers, and the region's resilience to climate change; and (b) support the Recipient's capacity to respond promptly and effectively to an Eligible Emergency, as needed.

16. This PDO will be achieved through: (i) enhancing transport connectivity between the CAL and other regions; (ii) enhancing the access of inhabitants and agricultural producers to selected markets by improving internal connectivity within the CAL, as well as selected market facilities; (iii) developing regional knowledge and tools to enable public and private actors in the region to better plan investments and activities; (iv) improving the region's resilience to climate change; and (v) providing GoH with resources and capacity to respond promptly and effectively to an eligible emergency.

B. Project Beneficiaries

17. The proposed investments and activities will focus on and benefit producers, investors and organizations involved in agriculture and other sector investment promotion in the CAL region. The number of direct beneficiaries is estimated at 190,000, of which an estimated 40,000 are producers and 30 percent are expected to be women. Some direct beneficiaries also come from larger towns in the CAL region where the Project would rehabilitate or build a market, and where the local authorities as well would benefit from the activities dedicated to strengthen capacity and develop technical knowledge of the territory. The number of indirect beneficiaries is estimated at over 1.2 million (current population of the CAL region): the inhabitants from the 14 municipalities will benefit from improved climate-resilient transportation infrastructure including increased and better quality year-round access to markets, and from improved local governance including transparent and participatory decision-making mechanisms. Moreover, the Project will benefit the road network users transiting in-and-out or through the CAL region (especially between the capital and the North or the DR), through improved transportation and logistics. Finally, the capacities of the institutions involved in Project implementation will be strengthened, notably the existing project implementation units (PIU) at the Ministry of Finance and Economy (MEF) and at the Ministry of Public Works, Transportation, Energy and Communications (MTPTC), CIAT and its Executive Secretariat, and MARNDR.

C. PDO Level Results Indicators

18. The results of the proposed Project will be measured through the following set of indicators (the detailed description of which can be found in Annex 1):

- Share of rural population within 2 km of an all-weather road (disaggregated by gender), also known as the Rural Access Index;
- Share of roads classified as vulnerable to natural events and climate change impacts;
- Increase in volume of transaction in improved markets;
- Share of the population in the Project area satisfied with the quality and impact of the infrastructure financed by the Project.

III. PROJECT DESCRIPTION

A. Project Components

19. **COMPONENT A – Enhancing logistics, transport connectivity, and climate resilience** (US\$37.0 million, o/w US\$32.5 million IDA and US\$4.5 million PPCR). This component aims to link the CAL region to economic growth poles outside the region, and to improve the internal connectivity of the CAL, by increasing all-weather access to agricultural production areas, markets and services, and by increasing the Rural Access Index and the macro-resilience of the road network to natural events and effects of climate change. To complement ongoing national and donor-financed infrastructure investments in the road network, the Project will finance the protection, rehabilitation and construction of critical spots along the road network, and apply climate-proofing measures. This focused intervention has proven to be an efficient investment strategy, bringing in maximized development impacts and mitigating risks of isolation of population and traffic cuts in extreme weather events. The Project will also address the issue of road safety by mainstreaming best practices in infrastructure designs and promoting shared-use design of the road with pedestrian and Intermediate Means of Transport (IMTs)⁶.

20. **Subcomponent A.1: Improving the “structuring” road network** (US\$27.5 million, o/w US\$25.5 million IDA and US\$2.0 million PPCR). The Project will strengthen regional connectivity, logistics and the climate resilience of the road network through the rehabilitation and/or construction of: **(a)** vulnerable road sections, bridges, river crossings, and critical spots along three major connecting roads: (i) outbound to the capital/South (Saut d’Eau-Titanyen); (ii) outbound to the North (Dessalines-Saint Michel-Saint Raphaël); (iii) internal corridor West-East across the loop (Maïssade-Hinche); **(b)** critical sections of primary, secondary and tertiary roads selected on the basis on the vulnerability assessment to be carried out under Subcomponent C.1(a) (these correspond to the application of climate-proofing measures, that will for instance reinforce hydraulic protection of bridges, improve drainage, stabilize slopes in mountainous areas); **(c)** tertiary roads selected based on a participatory decision-making mechanism involving the local authorities and the existing local “*Conseils Techniques Départementaux*” (CTDs)⁷ expanded to include other local stakeholders such as the civil society and the private sector; and **(d)** basic infrastructures along such roads, selected on a basis of a social assessment addressing the gender issue; all through the carrying out of works and the provision of goods and consultants’ services.

21. **Subcomponent A.2: Improving the rural road network** (US\$4.9 million, o/w US\$3.0 million IDA and US\$1.9 million PPCR). The Project will improve internal connectivity and in particular the transit and transport of agriculture products all year round by improving the rural road network and the climate resilience thereof through: **(a)** the rehabilitation or upgrading of selected feeder roads and rural pathways, selected based on a participatory decision-making mechanism (same as under Subcomponent A.1); and **(b)** the rehabilitation and construction of small logistical facilities, such as collection points for agricultural production, drinking points along pathways, or shading areas; all through the carrying out of works and the provision of

⁶ Intermediate Means of Transport (IMT) refers to types of transportation that fill the gap between human effort and motorized vehicles, including wheelbarrows, bicycles, animal carts, donkey transport, wagons, motorcycles, motorized three-wheeled vehicles, and two wheel tractors.

⁷ Councils called up by the Departmental Delegate and including all the Department level Representatives of the line Ministries.

goods and consultants' services.

22. **Subcomponent A.3: Strengthening road maintenance capacity and mechanisms at the local level** (US\$4.1 million, o/w US\$4.0 million IDA and US\$0.1 million PPCR). To ensure local maintenance of the road and infrastructure network in the CAL, the Project will strengthen road maintenance capacity and mechanisms through: **(a)** the preparation and adoption of a regional road maintenance strategy and guidelines as well as the provision of Training to MTPTC; **(b)** the rehabilitation of road maintenance centers in Hinche and Mirebalais; **(c)** the construction of a road maintenance center in Saint Michel; and **(d)** the development of new road maintenance micro-enterprises and community-based organizations (CBOs), and enhancing the capacity of existing micro-enterprises and CBOs; all through the carrying out of works and the provision of goods, consultants' services and Training.

23. **Subcomponent A.4: Supporting the application of best practices addressing the issue of climate resilience** (US\$0.5 million PPCR). The Project will support the development of technical guidelines and training programs for the incorporation of climate resilience in the design of road infrastructure through the provision of goods, consultants' services and Training.

24. **COMPONENT B – Improving infrastructure and management capacity of markets** (US\$10.0 million, o/w US\$9.5 million IDA and US\$0.5 million PPCR). This component will improve the infrastructure and management capacity of key selected urban markets (2 to 4) and rural markets (4 to 8) to link agricultural producers with the roads provided under Component A.

25. **Subcomponent B.1: Urban markets and associated facilities** (US\$5.0 million, o/w US\$4.5 million IDA and US\$0.5 million PPCR). The Project will support the rehabilitation and/or construction of selected urban markets and the associated facilities (such as logistical facilities, access roads, water and sanitation systems), and the improvement of their climate resilience and management capacity, through the carrying out of works and the provision of goods, consultants' services and Training.

26. **Subcomponent B.2: Rural markets** (US\$5.0 million IDA). This subcomponent will finance the same activities as Subcomponent B.1, but through a competitive scheme: it will support the rehabilitation and/or construction of selected rural markets and the associated facilities, selected based on a participatory decision-making mechanism (same as under Component A), and the improvement of their management capacity, through the carrying out of works and the provision of goods, consultants' services and Training.

27. **COMPONENT C – Supporting the development of regional knowledge, planning capacity and local participation** (US\$6.0 million, o/w US\$3.0 million IDA and US\$3.0 million PPCR). The Project will support the development and dissemination of knowledge, methodologies and tools to inform territorial and urban planning and opportunities for public and private investments. This component aims to support the GoH, municipalities and local stakeholders to effectively plan and make consensual decisions.

28. **Subcomponent C.1: Improving regional knowledge** (US\$2.0 million, o/w US\$1.0 million IDA and US\$1.0 million PPCR). This subcomponent will support the development of regional knowledge including climate resilience aspects, through: **(a)** the carrying out of a vulnerability assessment of the road network; **(b)** the preparation of studies, plans and guidelines; **(c)** the

development of information systems; **(d)** the provision of technical assistance (TA) to strengthen the capacity of CIAT-es; and **(e)** the development of a dashboard tool capturing key development indicators and investments at the regional level; all through the provision of goods and consultants' services.

29. **Subcomponent C.2: Supporting the development of regional planning capacity and local participation** (US\$4.0 million, o/w US\$2.0 million IDA and US\$2.0 million PPCR). The Project will support the development of regional planning capacity, including climate resilience mainstreaming, and local participation through: **(a)** the preparation of a regional programmatic development agenda; **(b)** supporting the implementation of the participatory decision-making mechanism at the local level to identify local priorities and investments; and **(c)** enhancing the capacity of existing local CTDs, the technical services of selected municipalities, the “*Conseils d’Administration*” (CASECs) of “*Sections Communales*” (the smallest administrative division in Haiti) and CBOs, through the carrying out of small works and the provision of goods, consultants' services and Training.

30. The mechanisms developed under this subcomponent, though specifically designed to implement the activities financed by the Project, will support the initiative from the GoH to strengthen, drive and implement the overall development agenda for the CAL region, which goes beyond the activities financed by Components A and B. This initiative is similarly underway in the other regions of the country such as the North/Northwest corridor and the South Peninsula.

31. **COMPONENT D – Contingent Emergency Response Component** (US\$1.0 million IDA). Due to the high risk of a catastrophic event in Haiti, the proposed Project includes a provisional component, designed as a mechanism for rapid response in the event of an eligible emergency, subject to the request of the GoH. Such components of “Provision of support to respond to an eligible emergency, as needed”, which include triggers and conditions for the use of funds, are included in most investment projects in Haiti in keeping with the recommendations of the 2011 World Development Report (WDR) on Conflict, Security and Development and with the operational experience acquired in Haiti since the 2010 earthquake. If not disbursed 24 months before the closing date, the currently allocated amount of US\$1.0 million would be made available to finance activities under other Project components.

32. **COMPONENT E – Project Implementation, Monitoring and Evaluation (M&E)** (US\$4.0 million IDA). This component will finance the activities of the implementing agency for the Project: the “*Unité Technique d’Exécution*” (UTE), an existing PIU under the responsibility of MEF. UTE will coordinate, evaluate, supervise and implement the Project. CIAT-es, MTPTC and MARNDR will be partner institutions for the proposed Project. Funding will provide support to MEF, CIAT-es, MTPTC and MARNDR for the Project management, monitoring and evaluation, through the carrying out of small works and the provision of goods, consultants' services, Training and Operating Costs.

B. Project Financing

33. The lending instrument for the Project is an Investment Project Financing (IPF), with a five-year implementation period. It will be financed through an IDA Grant to the Republic of Haiti in the amount of US\$50.0 million equivalent, and a Strategic Climate Fund Grant (SCF, under the umbrella of CIF) to the Republic of Haiti in the amount of US\$8.0 million. The SCF

Grant was approved by the CIF Administration Unit on January 27, 2014.

34. A Project Preparation Facility (PPF) was made available to enhance preparatory studies.

Table 1: Project Cost and Financing

Project Components	Project cost	IDA Financing	CIF Financing	% Financing
A.Enhancing logistics, transport connectivity and climate resilience	37.0	32.5	4.5	100
B.Improving infrastructure and management capacity of markets	10.0	9.5	0.5	100
C.Supporting the development of regional knowledge, planning capacity and local participation	6.0	3.0	3.0	100
D.Contingent Emergency Response Component	1.0	1.0	0.0	100
E. Project Implementation, Monitoring and Evaluation	4.0	4.0	0.0	100
Total Project Costs	58.0	50.0	8.0	100
Total Financing Required	58.0	50.0	8.0	100

C. Lessons Learned and Reflected in the Project Design

35. The proposed Project builds on WB lessons of experience worldwide with all-weather access to rural areas, and the importance of connecting lagging regions to leading economic poles to unleash their potential, reduce regional inequities and promote balanced inner development (WDR, 2009). Evidence from Bank projects demonstrates indeed that improved transport conditions contribute to socio-economic development and poverty reduction, providing better access to social services, which promotes better livelihood conditions; and to markets, which promotes income-generating opportunities. Lessons also relate to the increased impact of providing complementary services, facilities and infrastructure concomitantly, notably agricultural services. Also, participatory planning and inclusion can ensure better targeting of resources while better responding to community needs, and empower the rural poor in the process of selecting roads to be rehabilitated. Finally, lessons point to the necessity of protecting road investments by using appropriate design standards for construction, especially in areas vulnerable to adverse natural events and climate change, planning maintenance activities systematically once roads are built, and strengthening road maintenance country system.

36. The proposed Project will take into account and leverage existing mechanisms developed under the Bank-funded projects PTDT (in the transport sector) and PRODEP (community-driven development project) that are completed and have demonstrated that participation is key to respond to the needs of the population. In this regard, it will capitalize on the community-driven development plans prepared with support from the Canadian International Development Agency (CIDA) in twelve communes of the CAL region. The Project will target local producers, like under RESEPAG I and II and the BDI Project (promoting business development and investment), knowing that small producers and MSMEs are critical actors in the CAL regional development. The Project will seek to create synergies, provide services concomitantly, and foster higher impact development across sectors, including with the following sectors and Bank-financed projects: (i) infrastructure, transport and energy: the ongoing Energy Project will fund the construction of a new distribution line connecting Mirebalais to Saint-Marc; PROReV, PRUII and the DRMR Projects are financing a TA program to improve road maintenance system at national level and capacity building within MTPTC; (ii) health: through the ongoing Health Project, the proposed Project will, *inter alia*, connect isolated areas affected by the cholera and facilitate services delivery; (iii) agriculture: through RESEPAG I and II; (iv) business

development: through the BDI Project; and (v) cross-cutting theme of climate resilience: Haiti's SPCR not only includes the Investment project of "Climate Proofing of Infrastructures in the CAL Region" entirely linked to the proposed operation, but also three others, connected to one another (and detailed in Annex 7).

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

37. MEF is the Implementing Agency for the Project, given the overarching objective of diversifying the economy and improving growth outside PaP, and will use its existing implementing agency UTE (experienced with the implementation of large infrastructure projects, including IDB-financed projects). The GoH shall vest the overall responsibility for the implementation of the Project in MEF. The GoH shall ensure that MEF, on behalf of MTPTC, MARNDR and CIAT-es, shall carry out the Project in accordance with the Operations Manual (OM).

38. For the purpose of carrying out the Project, the GoH through MEF shall enter into appropriate institutional arrangements, satisfactory to the Association, with MTPTC, MARNDR and CIAT-es. The said arrangements consist in summary in UTE implementing all components and being ultimately responsible for compliance with Project requirements, procurement guidelines, and implementation actions and schedule, and Project partner institutions (MTPTC, MARNDR and CIAT-es) playing a strategic and technical role (depending on the subcomponents: details in Annex 3).

39. For the purpose of ensuring the proper coordination and execution of the Project, the GoH shall operate and maintain the Steering Committee within UTE throughout the duration of the Project. The Steering Committee shall be chaired by the Executive Secretary of CIAT, with membership consisting, *inter alia*, of representatives of the technical departments and units within MEF, MTPTC, MARNDR and CIAT as well as representatives of local stakeholders, as set forth in the OM. The functions of the Steering Committee include, *inter alia*: (a) ensure consistency of activities with the achievement of Project development objectives, and (b) review annual monitoring reports and audits to validate recommendations for improvement and take appropriate actions in support of implementation; all in accordance with the OM.

B. Results Monitoring and Evaluation

40. Joint supervision missions by the GoH and the Bank will monitor the status of Project outcomes, safeguards and legal covenant compliance. Additionally, an M&E system will be put in place for the Project to ensure that required M&E data are regularly generated and tracked. The setup and operation of such system will be responsibility of UTE with support from the Bank. Key results indicators, including changes in income and indicators of infrastructure service ability will be tracked through data quality control or collection, based to the extent possible on existing tracking mechanisms. This system will also plan for a satisfaction survey. Furthermore, as part of the development of Haiti's SPCR, CIAT-es has been working on developing a sound reporting system for the PPCR (at the country program level and as part of a regional Caribbean program) and on strengthening institutional capacities for M&E.

C. Sustainability

41. With regard to the overarching objective of the Project to promote growth and spur economic activity outside PaP, the sustainability of the interventions depends on the success of Component C. The development of databases and tools, the provision of support to participatory and decision-making mechanisms, and the launch of the regional programmatic agenda will be key, and will require strong support from the GoH. The GoH has demonstrated a strong commitment to the proposed Project, and sustained willingness to work with the Bank and the international donor community in the CAL region, particularly through the work and collaboration from CIAT and its Executive Secretariat and the local consultations held. The ability of the CAL region to attract future investments, generating economic growth and income, will depend on the quality of knowledge and tools developed to inform the public and private sector, once the basic infrastructure (to which the Project contributes) is in place.

42. With regard to the proposed infrastructure works in the CAL, the sustainability will depend on financial resources to operate and maintain them, the capacity of local entities responsible for maintaining the assets, the level of ownership of the infrastructure by the beneficiaries, and strong institutional arrangements, predominantly at the local level. This level of ownership will result from the implementation processing and mechanisms. The Project activity dedicated to develop a road maintenance strategy for the CAL, including technical, operation and maintenance (O&M), financing, and management guidelines for rural roads and markets, and their dissemination and application, as well as a set of targeted legal covenants, will contribute to sustainability. The three major connecting roads considered for investments under Component A will have to be part of the road list eligible for FER funding (Road Maintenance Fund). This national Fund finances routine and periodic maintenance works for select primary and secondary roads, the eligibility of which is revised by decree every two years.⁸ The strengthening of the road maintenance system at national level supported by ongoing Bank, IDB and EU-financed projects, will also be key to ensure sustainability. Nonetheless, outside the scope of the proposed Project, the sustainability of the interventions depends on the overall progress of the GoH's decentralization agenda, particularly the transfer of adequate resources to regional and local entities for O&M. This decentralization process is a long-term transformation and surely has an impact on the sustainability of the Project activities.

43. The participatory approach is designed to promote improved governance in public services provision, including more transparency and accountability from the national and local authorities towards the population. This demand for good governance will improve the provision and sustainability of services.

⁸ A detailed description of the road maintenance system in Haiti can be found in Annex 2 (Box 1).

V. KEY RISKS AND MITIGATION MEASURES

Table 2: Risk Ratings Summary Table

Risk Category	Rating
Stakeholder Risk	High
Implementing Agency Risk	
- Capacity	Substantial
- Governance	Substantial
Project Risk	
- Design	Substantial
- Social and Environmental	Moderate
- Program and Donor	Moderate
- Delivery Monitoring and Sustainability	High
- Other: <i>Force Majeure</i>	High
Overall Implementation Risk	High

44. **Overall Implementation Risk is rated High.** Though UTE has never served as an implementing agency for a Bank-financed project, it has extensive experience with large infrastructure projects with other donors, such as the IDB. The implementation risk remains high in light of the complexities of operating in Haiti as a FCS and general governance issues, the large scope of the Project, its multi-sectoral design, fiduciary and safeguards capacity weaknesses, and the general technical capacity limitations in Haiti, such as in climate change adaptation.

VI. APPRAISAL SUMMARY

A. Economic Analysis

45. The main road network investments envisaged under Subcomponent A.1 have a cost of US\$21 million, representing about 50 percent of total Project estimated investments. They consist in a major improvement of the road network with a focus on all-weather access and resilience to climate change. These investments concern four stretches of roads totaling 105 km and climate adaptation measures for a major bridge. The other physical investments (the ones which are not under Subcomponent A.1, i.e. feeder roads and rural pathways, as well as market facilities, estimated at a cost of US\$15 million or 26 percent of Project costs) are yet to be identified during implementation through a participatory approach based on stakeholder demand. Therefore, they are not amenable to an *ex-ante* economic and financial analysis. Nevertheless, they will be subject to an *ex-ante* cost-benefit analysis as part of the selection process, with a tentative 12 percent Internal Rate of Return (IRR) to be met to be included in the Project (the target IRR may slightly change depending on the nature and size of the investments, particularly in the case of rural pathways or rural markets).

46. **Methodology.** The Roads Economic Decision Model (RED) was used to quantify benefits from the main roads rehabilitation and upgrading. It was calibrated to the local circumstances prevailing in the CAL region, in terms of investment and maintenance costs, road and traffic conditions. The potential exogenous (induced) benefits arising from increased agricultural production or increased health and social services delivery as a result of road

investments were not taken into consideration either to avoid potential double-counting with Vehicle Operating Costs (VOC) or due to a lack of reliable data. The RED Model was also used to: (i) quantify benefits for one of the possible climate adaptation measures envisioned, namely the rehabilitation and improved hydraulic and river bank protection of the Artibonite River bridge estimated at US\$1.6 million; (ii) simulate additional VOC and transit time in the event of bridge failure.

47. **Results.** Of the three scenarios considered, the best Net Present Value (NPV) result for all roads considered is for the option of an upgrade to all-weather practicability conditions. The average IRR for that option is 8 percent. The impact of bridge failure would cause an increase of US\$37.1 million in VOC, and of four hours in transit time (US\$5.9 million loss). Given the US\$8.0 million needed for the construction of a new bridge, the overall cost of not protecting the bridge would be US\$51.0 million compared to the US\$1.6 million needed for protecting the bridge. These results are partial, as they do not take into account the benefits accruing from the additional physical investments in market facilities and feeder roads and rural pathways, or from the investments in capacity building. The benefits from these additional physical investments are likely to be substantive, as they will decrease transaction costs and losses and improve producers' access to markets, thereby giving them ready outlets and steady incomes for their production. Therefore, overall Project results are expected to be higher than those for the major road investments alone.

B. Technical

48. The design of the roads will apply international engineering standards and build on lessons learned in road construction from past and ongoing operations (PRORéV, PRUII and DRMR) especially for adapted drainage and hydraulic protection of riverbanks to enhance resilience to natural shocks. The Project will also support the development of specific guidelines for rural pathways based on low-cost design. MTPTC will review the technical quality of design of the different investments. Market investments will follow technical recommendations outlined by CIAT-es and the national building code integrating principles and best practices for para-seismic and para-cyclonic construction (newly released).

C. Financial Management

49. A financial management (FM) assessment was carried out to evaluate the adequacy of FM arrangements under the proposed Project. The summary FM arrangements and evaluation are as follows (and the detailed implementation arrangements are described in Annex 3): **(a)** FM aspects will be implemented using existing capacity in the Implementing Agency ; **(b)** UTE will be in charge of the FM aspects for the activities under the components and subcomponents of the Project; these will include: (i) budget formulation and monitoring; (ii) cash flow management (including processing payments and submitting loan withdrawal applications to the Bank); (iii) maintenance of accounting records, including the maintenance of an inventory of fixed assets for the Project; (iv) preparing annual and semi-annual reports; (v) coordinating the Project audits; and (vi) furnishing to the Bank the financial statements audited by external auditors; all these in a context of managing two Designated Accounts opened to receive and make payments from IDA grant on the one hand and PPCR grant on the other hand; and **(c)** UTE having prior experience implementing multilateral financed projects, which overall had suitable implementation of FM

arrangements, it is in an advantageous position to manage the FM aspects of the proposed grant.

D. Procurement

50. A procurement assessment was carried out to evaluate the adequacy of procurement arrangements under the proposed Project. UTE has gained sufficient procurement experience in projects financed by other donors to be able to manage the procurement processes for the proposed Project. Procurement staff will receive intensive training in Bank policies and procedures so as to execute procurement according to applicable Bank Guidelines, including those applicable to fraud and corruption.

E. Social (including Safeguards)

51. The proposed Project will provide improved access to services and markets for the rural population in the CAL Region, improved social and sanitary conditions for vendors and customers in the markets and increased economic activity. Improvements may include sanitary facilities for live and slaughtered livestock, child care in markets, drinking water and sanitation facilities along the roads, etc. Potential negative social impacts such as road safety issues resulting from increased traffic and livelihood impacts as a result of involuntary resettlement will be identified in a participatory and gender-sensitive social assessment and mitigated through the ESMF and other safeguard instruments.

52. ***Involuntary Resettlement Policy (OP/BP 4.12)***. This policy is triggered as the road rehabilitation and upgrading/construction of selected spots and markets are likely to result in limited temporary or permanent involuntary resettlement. The scope of resettlement will depend upon the technical design. Land acquisition will be minimized. Under Component A, road investments envisioned will mostly consist in improvement works on small-size spots, bridge protection or construction works on existing roads. The roads that will be rehabilitated already exist and there is virtually no encroachment on the right of way. The critical spots, mainly where bridges will be constructed, are located in places where there are no existing structures. In the event that the feasibility study would recommend a minor diversion in the right of way of these critical spots, agricultural land may be affected. Under Component B, rural markets will be identified based on a competitive and participatory scheme during Project implementation. Measures to ensure that the temporary negative impacts on market sellers' livelihoods are minimized and compensated during the works will be developed in consultation with the affected communities. The urban market in Saint Raphaël will be upgraded *in situ*; and a new market in Saint Michel will be constructed on public land with clear land title. The screening process to identify the rural markets and up to two additional urban markets that may be financed by this Project will include measures to minimize involuntary resettlement in accordance with OP 4.12 and screen out any category A sub-projects.

53. A Resettlement Policy Framework (RPF) will be developed prior to Project Effectiveness to ensure any involuntary resettlement impacts of the Project investments will be mitigated in accordance with the principles and requirements of OP 4.12 and the Haitian law. Consultations with community members, particularly Project affected people and institutions, will be undertaken during the preparation of the RPF. Resettlement Action Plans (RAPs) for the urban markets of Saint Raphaël and Saint Michel will be developed alongside the technical studies that define the type of upgrade and ensure consistency with the urban development plans, and will be

implemented before the commencement of works in accordance with the special facility accorded under OP 10.00 that allows the deferral of preparing safeguards instruments to the Project implementation phase. Similarly, RAPs for works that have not been identified will be developed alongside the technical studies and implemented before the commencement of the works. A grievance redress mechanism will be developed prior to the start of project activities.

54. UTE has sufficient experience with planning and undertaking resettlement activities to be able to implement the requirements of OP 4.12. One social specialist will be recruited before Effectiveness with PPF funding to coordinate the development and implementation of the Social Assessment (SA) to be undertaken for the Project, the RPF and the RAPs.

55. **Gender.** The beneficial social development impacts previously described are all the more significant since in the region, women are well represented in the workforce (61 percent is economically active) and primarily in traditionally “female” agricultural jobs and in petty trade, and most of the production is transported to and sold in markets by women and girls. Improved connectivity and access will benefit all, but women in particular, through time savings and improved transport conditions. Improved sanitary facilities along the road and in markets will also benefit all, but especially women given the current dire market sanitation conditions. Improved sanitation in areas with live and dead animals will benefit all, particularly women and children who spend more time inside the market facilities.

56. However, female leaders are underrepresented in municipal, regional or sectorial decision-making bodies and face multiple barriers in participating in development. A gendered social assessment developed (within the overall SA) with additional TA will ensure that women’s needs and priorities are taken into account in the detailed design of activities, that they can fully participate in the development process and that gendered reporting on Project indicators will be available. Women’s participation will be strongly encouraged in the Project: in the works activities, in the O&M and management of the infrastructure built, in the consultation process and decision-making mechanism (or appropriately represented at least). In particular for the selection of the rural roads and markets to be rehabilitated or built, the Project will use an “*Outreach Strategy*” to ensure that women attend consultations on roads and markets selection, and women’s voices are heard during the consultation process. The selection process will include the preparatory work of: identification and development of the right instruments and vehicles for inclusive consultations to take place (for instance through the CASECs); and completion of assessments *ex-ante* in adequate locations for the consultations respectively with women and men. The strategy will also consider appropriate instruments to overcome the literacy challenges likely to be encountered with the target population(s).

57. **Participation of the local actors.** While the local authorities (Mayors and CASECs) will be the entities submitting the investment proposals to the CTDs, they will be supported by Operators whose major role, in addition to providing technical support, will be to facilitate the dialogue with the civil society. Individuals, farmers, producers, market users, NGOs, community development councils or CBOs if existing, women associations, etc. will participate in the selection process and be included in the “expanded” CTDs supported by the Project as the local platform for discussion and consultation. The construction or rehabilitation works will be executed preferably by the communities or by private contractors or NGOs. Training will be delivered not only to municipalities but also to local communities.

F. Environment (including Safeguards)

58. The environmental impact of the works envisioned under Component A will certainly generate positive results. The road networks and transportation in general will be more climate-resilient and able to withstand weather related shocks. Negative environmental impacts are largely related to the construction phases of the Project and will require the appropriate action plans to ensure proper waste disposal, avoid water contamination, prevent erosion, and put in place strong occupational health monitoring. These action plans will also reflect the specificities of flood-prone areas. With regard to Component B, siting will be particularly important for new markets to ensure not only aspects such as accessibility, community interest in a market, etc., but also access to water for sanitary/toilet facilities. Clearly, the environmental, and particularly the social implications involved in expanding or rebuilding a market, merit a small study prior to investment. An Environment Management Plan (EMP) for the markets will assess issues related to sanitation and solid waste management, water supply and food safety issues. It will also assess what is needed from the communities or GoH, in order to manage and maintain these facilities, particularly cleaning of the market grounds as well as toilet facilities. Options such as market associations may be considered. The Project will also explore how to generate revenues to ensure continued maintenance of new market infrastructure.

59. ***Environmental Assessment (OP/BP 4.01)***. This policy is triggered, and environmental safeguard instruments for Components A and B include: (i) an ESMF for the Project; (ii) an EMP for the roads with a detailed section for each road segment; (iii) an EMP for the bridges with a detailed section for each specific bridge; and (iv) an EMP for the market construction and/or rehabilitation with a detailed section for each specific site. Consultations will be undertaken during the preparation of the ESMF.

60. ***Natural Habitats (OP/BP 4.04)***. Natural Habitats is triggered as a precaution because there are several works in the watershed area, and many works (roads, bridges) cross small streams that may be important aquatic habitat areas. The ESMF will cover this.

Annex 1: Results Framework and Monitoring
HAITI: Center and Artibonite Regional Development Project

Table 3: Results Framework and Monitoring

Project Development Objectives											
The objectives of the Project are to: (a) support the development of the Center Artibonite Loop region, primarily by enhancing all-weather connectivity and logistics for producers, and the region's resilience to climate change; and (b) support the Recipient's capacity to respond promptly and effectively to an Eligible Emergency, as needed.											
Project Development Objective Indicators											
Indicator Name	Core	Unit of Measure	Baseline	Target Values					Frequency	Data Source / Methodology	Responsibility for Data Collection
				YR1	YR2	YR3	YR4	End Target			
1. Share of rural population with access to an all-weather road (disaggregated by gender)	Y	% (+ Number sub-type supplemental)	39% ⁹	39%	39%	45%	50%	60%	Annual	Spatial analyses and Road Management System (RMS)	UTE with technical inputs from MTPTC and CIAT-es + CIAT-es will report to SPCR*
2. Share of roads classified as vulnerable to natural events and climate change impacts	N	%	Tbd**	Tbd**	Tbd**	Tbd**	Tbd**	Tbd**	Annual	Spatial analyses, Climate change and Hazard assessment and RMS	UTE with technical inputs from MTPTC and CIAT-es + CIAT-es will report to SPCR*
3. Increase in volume of transaction in improved markets	N	%	0%	0%	0%	15%	20%	25%	Annual	Surveys in improved rural and urban markets	UTE with technical input from the "Operators"
4. Direct Project beneficiaries (disaggregated by gender)	Y	Number	0	2,000	10,000	50,000	100,000	190,000	Annual	UTE	UTE + CIAT-es will report to SPCR*
5. Share of the population in the Project area satisfied with the quality and impact of infrastructure financed by the Project	N	%	0%	0%	0%	20%	20%	75%	Mid-Term and End of Project	Satisfaction survey	UTE + CIAT-es will report to SPCR*

* Indicators linked to PPCR Core Indicators, specifically followed up by CIAT-es in the framework of the overall SPCR: see Annex 7.

** See information in Table 4.

⁹ Results from the study completed by CIAT-es on Rural Access Index.

Intermediate Results Indicators											
Indicator Name	Core	Unit of Measure	Baseline	Target Values					Frequency	Data Source / Methodology	Responsibility for Data Collection
				YR1	YR2	YR3	YR4	End Target			
Component A. Enhancing logistics and transport connectivity and climate resilience											
1. Rural roads rehabilitated	Y	Kilometer	0	0	10	30	60	80	Annual	RMS, MTPTC	UTE with technical input from MTPTC
2. Non-rural roads rehabilitated	Y	Kilometer	0	0	5	30	90	100	Annual	RMS, MTPTC	UTE with technical input from MTPTC
3. Roads in good and fair conditions as a share of total classified roads	Y	%	25%	25%	25%	50%	50%	50%	Annual	RMS, MTPTC	UTE with technical input from MTPTC
4. Number of officials and technical staff trained in climate resilience measures, best practices and standards (in the transport sector)	N	Number	0	0	20	50	80	100	Annual	UTE, CIAT-es, MTPTC, Municipalities	UTE with inputs from CIAT-es and MTPTC and Municipalities + CIAT-es will report to SPCR*
5. Spot interventions to enhance all-weather accessibility of roads	N	Number	0	0	2	8	12	15	Annual	RMS, MTPTC	UTE with technical input from MTPTC
6. Road Maintenance Microenterprises or CBOs created/trained (with number of people trained disaggregated by gender)	N	Number	0	0	Tbd**	Tbd**	Tbd**	Tbd**	Annual	MTPTC, FER, "Operators", Community surveys	UTE with technical inputs from MTPTC and "Operators"
Component B. Improving infrastructure and management capacity of markets											
7. Urban and rural markets rehabilitated/constructed	N	Number	0	0	1	4	8	10	Annual	UTE	UTE
8. Increase in the number of producers, retailers and traders with access to improved markets	N	%	0%	0%	10%	15%	20%	25%	Annual	Surveys on the improved markets	UTE with technical support from CIAT-es + CIAT-es will report to SPCR*
9. Percentage of renovated/constructed markets which are adequately maintained and managed	N	%	0%	0%	50%	50%	75%	75%	Annual	Surveys on the improved markets	UTE
10. Local officials and market operators trained in market management	N	Number	0	0	20	50	80	110	Annual	UTE, Municipalities	UTE

Intermediate Results Indicators											
Indicator Name	Core	Unit of Measure	Baseline	Target Values					Frequency	Data Source / Methodology	Responsibility for Data Collection
				YR1	YR2	YR3	YR4	End Target			
Component C. Supporting the development of regional knowledge, planning capacity and local participation											
11. Number of events/activities dedicated to knowledge dissemination and consultation	N	Number	0	0	3	6	9	12	Annual	Municipalities, UTE, CIAT-es	UTE
12. Urban plans developed	N	Number	0	0	2	3	4	4	Annual	Municipalities, CIAT-es, MTPTC SPU	UTE
13. Local officials and local stakeholders trained in the use of urban and territorial planning tools	N	Number	0	0	20	30	60	100	Annual	Municipalities, UTE, CIAT	UTE
14. Regional development dashboard with open data including spatial analysis encompassing risk and climate data	N	Yes/No	No	No	Yes	Yes	Yes	Yes	Annual	CIAT-es compiles the data, from data provided by its partner Ministries	UTE with technical input from CIAT-es
15. Cumulated amount in projects elaborated using analytical knowledge and tools developed by the proposed Project	N	Amount (US\$ million)	0	0	2	5	10	18	Annual	MEF, MPCE, CIAT-es	UTE + CIAT-es will report to SPCR*

Table 4: Description of the Indicators of the Results Framework and Monitoring

Project Development Objective Indicator Name	Description / Details on the Data Source and Methodology
1. [Core] Share of rural population with access to an all-weather road (“all-weather” is equivalent to “all-season”)	Percentage of rural people in the project area who live within 2 kilometers (typically equivalent to a 20-minute walk) of an all-season road. This indicator is also known as Rural Access Index (RAI). An all-season road is motorable all year by the prevailing means of rural transport (often a pick-up or a truck which does not have four-wheel drive). Predictable interruptions of short duration during inclement weather (e.g. heavy rainfall) are acceptable, particularly on low volume roads. Please note that this indicator requires supplemental information Supplemental Value: Number of rural people with access to an all-season road. The Supplemental Value is the total number of rural people with access to an all-season road. An all-season road is a road that is motorable all year by the prevailing means of rural transport (often a pick-up or a truck which does not have four-wheel-drive).
Number sub-type supplemental: number of rural people with access to an all-season road	Absolute number of rural people with access to an all-season road.
Number disaggregated by gender	Absolute number of male and female rural people with access to an all-season road.
2. Share of roads classified as vulnerable to natural events and climate change impacts	Such vulnerability of roads is measured by a vulnerability index combining level of exposure to natural hazards, quality of design, regularity of maintenance and level of resilience. Baseline and targets will be determined by the climate change and hazard assessment to be performed under Component C.

3. Increase in volume of transaction in improved markets	Growth in volume of total transaction taking place in improved markets, based on surveys conducted by the “Operators” in the rural and urban markets benefiting from the Project investments.
4. [Core] Direct project beneficiaries	Direct beneficiaries are people or groups who directly derive benefits from an intervention.
Supplemental value: Female beneficiaries, calculated as a percentage	Based on the assessment and definition of direct project beneficiaries, the proportion of the direct project beneficiaries who are female is to be specified.
5. Share of the population in the Project area satisfied with the quality and impact of infrastructure financed by the Project	The percentage will be estimated at Mid-Term Review and Project Closure. The sample of respondents will be selected so that it picks up likely beneficiaries of all project activities in all project areas, and the questions worded specifically with reference to project supported activities, with cross checks to verify answers.
Intermediate Results Indicator Name	Description / Details on the Data Source and Methodology
Component A. Enhancing logistics and transport connectivity and climate resilience	
1. [Core] Roads rehabilitated, Rural	Kilometers of all rural roads reopened to motorized traffic, rehabilitated, or upgraded under the project. Rural roads are roads functionally classified in various countries below Trunk or Primary, Secondary or Link roads, or sometimes Tertiary roads. Such roads are often described as rural access, feeder, market, agricultural, irrigation, forestry or community roads. Typically, rural roads connect small urban centers/towns/settlements of less than 2,000 to 5,000 inhabitants to each other or to higher classes of road, market towns and urban centers.
2. [Core] Roads rehabilitated, Non-rural	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.
3. [Core] Roads in good and fair condition as a share of total classified roads	Percentage of the total classified road network in the project area that is in good and fair condition depending on the road surface and the level of roughness. Classified roads are the roads that have been included in the roads legislation as public roads. Please note that this indicator requires supplemental information Supplemental Value: Total classified network in the project area (KM) The Supplemental value is the total classified network in the project area. Classified roads are the roads that have been included in the roads legislation as public roads.
4. Number of officials and technical staff trained in climate resilience measures, best practices and standards (in the transport sector)	Number.
5. Spot interventions to enhance all-weather accessibility of roads	Number.
6. Road Maintenance Microenterprises or CBOs created/trained (with number of people trained disaggregated by gender)	Number. Targets will be established by the results from the regional road maintenance strategy.
Component B. Improving infrastructure and management capacity of markets	
7. Urban and rural markets rehabilitated/constructed	Consolidated number of urban and rural markets rehabilitated/constructed, with indication of whether it is urban or rural.
8. Increase in the number of producers, retailers and traders with access to improved markets	Increase in the number of actors selling on the improved markets, whether producers who sell their own products directly or retailers or traders who sell other producers’ products. “Improve markets” means markets benefiting from the Project investments with “improved infrastructure, management and/or hygiene, and/or adoption of climate proofing measures (as relevant)”. Measured as a Percentage.
9. Percentage of renovated/constructed markets which are adequately maintained and managed	Percentage of renovated/constructed urban and rural markets which are adequately maintained (based on criteria on hygiene, cleanness, etc.) and managed (based on criteria on management plan, etc.) and when relevant, resilient to climate change (based on criteria on efficiency of wind/floor protection measures and decrease in repairs, lifespan of infrastructure, etc.).
10. Local officials and market operators trained in market management	Number.
Component C. Supporting the development of regional knowledge, planning capacity and local participation	
11. Number of events/activities dedicated for knowledge dissemination and consultation	The consolidated number will be reported in the Results Framework; in addition, the nature of these events/activities as well as the number of participants and shares of groups represented will be documented.
12. Urban plans developed and adopted by municipalities	Number.
13. Local officials and local stakeholders trained in the use of urban and territorial planning tools	Number.
14. Regional development dashboard with open data including spatial analysis encompassing risk and climate data	Ultimately the objective is to have a dashboard developed, publicly disclosed and updated on a regular basis. Measure is Yes/No, with indication of progress made (possible status: dashboard developed, dashboard developed and publicly disclosed, dashboard developed and publicly disclosed and updated on a regular basis).
15. Cumulated amount in projects elaborated using analytical knowledge and tools developed by the proposed Project	Cumulated amount in projects for which preparation or implementation phase is informed by the analytical knowledge or tools developed by the proposed Project.

Annex 2: Detailed Project Description

HAITI: Center and Artibonite Regional Development Project

1. **Project Development Objective (PDO).** The objectives of the Project are to: (a) support the development of the Center Artibonite Loop region, primarily by enhancing all-weather connectivity and logistics for producers, and the region's resilience to climate change; and (b) support the Recipient's capacity to respond promptly and effectively to an Eligible Emergency, as needed.

2. This PDO will be achieved through: (i) enhancing transport connectivity between the Center Artibonite Loop (CAL) and other regions; (ii) enhancing the access of inhabitants and agricultural producers to selected markets by improving internal connectivity within the CAL, as well as selected market facilities; (iii) developing regional knowledge and tools to enable public and private actors in the region to better plan investments and activities; (iv) improving the region's resilience to climate change; and (v) providing GoH with resources and capacity to respond promptly and effectively to an eligible emergency.

COMPONENT A – Enhancing logistics, transport connectivity and climate resilience (US\$37.0 million o/w US\$32.5 million IDA and US\$4.5 million PPCR)

3. **This component aims to link the CAL region to economic growth poles outside the region, and to improve the internal connectivity of the CAL, by increasing all-weather access to agricultural production areas, markets and services, increasing the Rural Access Index¹⁰ and the macro-resilience of the road network to natural events and effects of climate change.** To complement on-going national and donor-financed infrastructure investments in the road network, the Project will finance the protection, rehabilitation and/or construction of critical spots along the road network, and apply climate-proofing measures contributing to infrastructure resilience. This focused intervention has proven to be an efficient investment strategy, bringing in maximized development impacts and mitigating risks of isolation of population and traffic cuts in extreme weather events. The Project will also address the issue of road safety by mainstreaming best practices in infrastructure designs and promoting shared-use design of the road with pedestrian and Intermediate Means of Transport (IMTs)¹¹.

Subcomponent A.1: Improving the road network, with a focus on all-weather access and resilience to climate change (US\$27.5 million o/w US\$25.5 million IDA and US\$2.0 million PPCR)

4. **The Project will strengthen regional connectivity, logistics and the climate resilience of the road network through the strategic rehabilitation and/or construction investments:** (a) along three major connecting roads, (b) along primary, secondary and tertiary roads selected on the basis on the vulnerability assessment to be carried out under Subcomponent C.1(a); (c) on

¹⁰ Defined as the number of people who live within 2 kilometers (or about 25 minutes walking time) of the nearest all-weather road (Roberts, KC, and Rastogi 2006). The RAI is a core transport indicator, which measures access and mobility. The distribution of RAI values shows a significant correlation between rural access and poverty, maternal mortality and gender equity.

¹¹ Intermediate Means of Transport (IMT) refers to types of transportation that fill the gap between human effort and motorized vehicles, including wheelbarrows, bicycles, animal carts, donkey transport, wagons, motorcycles, motorized three-wheeled vehicles, and two wheel tractors.

tertiary roads selected based on a participatory decision-making mechanism involving the local authorities and the existing local “*Conseils Techniques Départementaux*” (CTDs)¹² expanded to other local stakeholders such as the civil society and the private sector; (d) basic infrastructures along such roads selected on a basis of a social assessment addressing the gender issue; all through the carrying out of works and the provision of goods and consultants’ services.

5. **The three major connecting roads** were selected by MTPTC, consultatively between CIAT-es and with due consideration of the other ongoing or projected donor-financed investments in the sector, mainly by AFD, EU and IDB. They are:

- Outbound to the capital/South: road section of 22 km between Saut d’Eau and Titanyen, which serves as an alternative to the National Road linking Mirebalais to Port au Prince. Works undertaken in 2009 by the *Centre National des Equipements* (CNE) sought to curve the road, but it remains highly vulnerable to adverse natural events due to lack of drainage and outstanding need for critical works and repairs on two bridges;
- Outbound to the North and East (RD103): road section of 61 km between Dessalines, Saint Michel and Saint Raphaël. This road serves as an alternative road from Saint Marc to Cap Haitian and a critical link to connect the micro-region of Saint Michel and Saint Raphaël in the CAL. Works undertaken in 2010 by the CNE sought to curve the road, but it remains highly vulnerable to adverse natural events due to lack of drainage, need for slope stabilization works in mountainous sections, and construction of two bridges;
- Internal corridor West-East across the loop (RD32): road section of 17 km between Maïssade and Hinche that would unleash agricultural potential in the area and increase access for a population of over 125,000. A bridge will be built at the entrance of Maïssade on river Frio.

6. Preliminary design studies for RD103 and RD32 are completed, including environmental and social assessment impacts, and full design studies are expected to be completed in April 2014 (EU funding). The proposed Project will finance complementary design studies (preliminary and detailed), particularly for the road Saut d’Eau-Titanyan and Saint Michel-Dessalines.

7. **The Project will contribute to improving the resilience of the CAL region to climate change.** Given the exposure of the region to more and more frequent extreme weather events, and to ensure the long-term sustainability of the investments, adaptation measures to climate change will be mainstreamed into infrastructure design and maintenance. This could include the reinforcement of hydraulic and wind protection, special drainage mechanisms for bridges, securing and climate-proofing measures for bridges (with re-estimate of flood and return period, review of design standards for designing discharge and protection of foundations, bank slop protection, considering realignment/relocation, etc.), slope stabilization works in mountainous or steep areas, use of protective nets and vegetation to counter erosion in terraced areas and slopes, choice of construction materials and bitumen to suit particular climates. Those measures will be promoted through guidelines and trainings to be developed under Subcomponent A.4.

8. **The focus on critical spots interventions will maximize development impacts.** The Project will finance works and related studies for the rehabilitation of vulnerable road

¹² Councils convoked by the Departmental Delegate and including all the Department level Representatives of the line Ministries.

subsections (including drainage structures), bridges (particularly vulnerable to strong winds, landslides, flooding, sudden increase of river flow and water level, etc.), river crossings, mountainous areas with steep slopes (vulnerable to landslides and erosion), and critical points along the structuring road network, contributing to fostering macro-connectivity in the network and needed stabilization. The objective is not only to improve all-weather access, but also the macro-resilience of the road network of the loop, and in doing so, all links between the capital and the northern regions of the country. This subcomponent would mitigate the risks of population isolation and traffic cuts in extreme weather events. An assessment of vulnerability of the network will be performed (under Subcomponent C.1) to identify critical points and to inform the selection of the investments to be financed by the Project.

9. **The proposed Project will also finance the rehabilitation of tertiary roads**, selected through the same participatory mechanism used in Subcomponent A.2, involving the local authorities and the existing local CTDs expanded to include other local stakeholders especially to the civil society and the private sector. The mechanism and its principles are described in Paragraphs 15 and 35 and the detailed definition will be captured in the Operations Manual (OM).

10. **The Project will contribute to facilitating the transport conditions of rural households through improved basic infrastructure along the road network.** Where relevant and feasible, investments in critical stretches will be complemented by basic infrastructure with a special focus on gender related issues, e.g.: footbridges that could lower the distance women need to walk to agricultural production collection points, basic sanitary facilities, drinking points for donkeys and cattle, scales along bridges to access river for laundry, etc. Such needs will be identified by a gender and social assessment.

11. **MTPTC will be responsible for the technical quality assurance of supervision and outputs.** The implementation arrangements and responsibilities of each agency will be agreed on and detailed in the OM.

Subcomponent A.2: Improving the rural road network, with a focus on all-weather access, and on connecting points, facilitating the transit and transport of agriculture products (US\$4.9 million, o/w US\$3.0 million IDA and US\$1.9 million PPCR)

12. **The Project will improve internal connectivity and in particular the transit and transport of agriculture products all year round.** It will facilitate all-weather access to communities, especially for IMTs in isolated areas, and alleviate the transportation conditions. This subcomponent aims to improve the rural road network and the climate resilience thereof, through: (a) the rehabilitation or upgrading of selected feeder roads and rural pathways, selected based on a participatory decision-making mechanism, and (b) the rehabilitation and construction of small logistical facilities, wherever relevant, such as collection points for agricultural production, drinking points along pathways, or shading areas.

13. **This subcomponent will promote climate resilience best practice and technical solutions at a lower cost.** Technical guidelines will be developed under Subcomponent A.4 and disseminated, for infrastructure design, construction and maintenance, mainstreaming context-specific climate resilience best practice, especially for roads and tracks dedicated to IMTs.

14. **The selection of the roads (tertiary roads under Subcomponent A.1, feeder roads and rural pathways under this subcomponent) will follow a combined top-down and bottom-up approach.** The former will serve as a prioritization and screening process based on economic and technical viability criteria, while the latter will allow for local participation and competition in the decision-making process. Under this scheme, CIAT-es at the central level, with support from MARNDR and MTPTC, will first select “priority zones” where investments will be made, based on a set #1 of criteria used to screen all 58 “*Sections Communales*” of the CAL region. The criteria will include data related to current agricultural production, agricultural potential, the nature and level of intervention needed to unleash that potential, lack of all-weather access, planned investments, population isolated during rainy season, poverty level. The bottom-up process will be facilitated by an Operator contracted by UTE.

15. **UTE will be responsible for implementation,** and have technical support from MTPTC, MARDNR and CIAT-es. UTE will manage a dedicated multidisciplinary team facilitating implementation and ensuring compliance with guidelines and selection methods. The mechanism to select the rural road investments is summarized hereafter (and will be detailed in the OM): (i) a call or calls for proposals will be issued, inviting the local authorities of the priority zones (Mayors and CASECs administrating the short-listed communes and “*Sections Communales*” respectively) to prepare and submit proposals for rural roads/pathways investments; (ii) the local authorities will prepare the proposals in consultation with local stakeholders including the civil society and with support and facilitation from an Operator hired by UTE (these proposals will include fundamentals such as investment needs, maintenance plans, initial investment designs, budgeting, and assessment of potential environmental and social issues); (iii) UTE will proceed with the evaluation of the proposals against a set #2 of finer criteria (defined upfront by CIAT-es and UTE with support from MTPTC and MARNDR), in consultation with a Selection Committee composed of representatives from department-level authorities from the three Departments covered by the CAL region; UTE will then recommend the final selection to be approved by the appropriate Departmental “Technical Council” (CTD) which is a meeting called up by the Departmental Delegate and includes all the departmental representatives of the line Ministries – under the proposed Project, CTDs will be expanded to include other local stakeholders such as the private sector and the civil society; (iv) the construction/rehabilitation works will be executed preferably by communities or private contractors/NGOs/UN agencies wherever relevant, and the supervision will be ensured by a technical consultant firm.

16. **Women’s participation will be strongly encouraged,** as most of the production is transported to markets by women. In order to mitigate the risk that women’s voice (and other excluded groups) has less bearing in the decision-making process, the Project will develop and use an “*Outreach Strategy*”. The purpose is to make sure that first, women attend consultations on roads selection, and second, women’s voice is heard in the consultations. The selection process will include the preparatory work of: identification and development of the right instruments; and completion of assessments *ex-ante* in adequate locations for the consultations respectively with women and men.¹³

¹³ For instance, the example of the “ten-seed technique” (<http://www.csd-i.org/storage/ol-101-course-documents/Ten-Seed%20Technique-Revised.pdf>) or tools developed by InSTEDD (Innovative Support to Emergencies Diseases and Disasters) in the case of public health, such as the “reporting wheel” (<http://instedd.org/technologies/reporting-wheel/>) could be considered

Subcomponent A.3: Strengthening of road maintenance capacity and mechanisms at the local level (US\$4.1 million, o/w US\$4.0 million IDA and US\$0.1 million PPCR)

17. **To ensure local maintenance of the road and infrastructure network in the CAL, the Project will strengthen road maintenance capacity and mechanisms**, through: (a) the preparation and adoption of a regional road maintenance strategy and guidelines as well as the provision of Training and technical assistance (TA) to MTPTC; (b) the rehabilitation of road maintenance centers in Hinche and Mirebalais; (c) the construction of a road maintenance center in Saint Michel; and (d) the development of new road maintenance micro-enterprises and CBOs, and enhancing the capacity of existing micro-enterprises and CBOs; all through the provision of goods, consultants' services and Training.

18. Maintenance is a critical condition to ensure the sustainability of the investments. Furthermore, the protection of existing infrastructure and the road maintenance issue together are critical to evolve from a "climate-vulnerable" to an "all-weather climate-resilient" transport network.

19. **The hard investments will be complemented with the development of an institutional reinforcement plan, a regional maintenance strategy for the CAL, technical guidelines for road maintenance, and with trainings.** Activities will be developed to complement the existing MTPTC TA program for road maintenance financed by the IDB, EU and the Bank-financed PROReV, PRUII and DRMR Projects.

20. **The Project will finance the rehabilitation/construction of selected local road maintenance centers.** This is envisaged for the existing local road maintenance equipment centers of MTPTC in Hinche and Mirebalais, and, for the construction of a new center in Saint Michel. The objective ultimately is to have several centers in the CAL region with defined responsibility areas, and that would effectively dispatch personal and equipment to do regular maintenance of the road network and would respond to crisis and emergency situations.

21. **The three major connecting roads considered for investments under Subcomponent A.1 will have to be part of the eligible road list of the national Road Maintenance Fund (FER)** – the next decreed one and throughout the lifetime of the Project. FER is a national Fund that finances routine and periodic maintenance works for selected primary and secondary roads, the eligibility of which is revised by decree every two years. MTPTC and the national budget are in charge of the maintenance of the road network that is not eligible for FER funding, mainly tertiary and local level roads. MTPTC has local road maintenance centers at department level, and commonly uses the force account mechanism to implement FER financed activities, or it contracts firms, and/or involves CBOs directly.

22. **For the local road network, the issue of maintenance will be addressed differently, with direct involvement of local communities and/or MSMEs**, in conjunction with activities proposed under Subcomponent A.2 on the selected feeder roads and pathways. This subcomponent will support the development of new and already existing local community-based microenterprises and MSMEs operating in the CAL region. The proposed Project will finance

and adapted to overcome the literacy challenges likely to be encountered with the target population(s) to ensure their true and sustainable participation.

training and TA to assist communities to establish and manage such microenterprises. Involvement of households/communities near the roads would provide extra income and help diversify livelihoods, thus reducing vulnerability.

Box 1: Road Maintenance in Haiti

Since 2005, the GoH has been notably investing in the structuring road network, with higher consideration of the critical need to protect the existing infrastructure and the future investments. Indeed, after two decades of shrinking investments (half of what was invested in 2000 which was already half of what was invested in 1985), the country must reconstitute its structuring road network which has suffered from a lack of investment, especially considering its vulnerability to climate change.

In 2006, the Bank supported the establishment of a national Road Maintenance Fund (FER) designed to finance routine and periodic maintenance of the primary and secondary road networks. The FER lacks the financial capacity to perform those maintenance works on all primary and secondary roads, so a priority list of eligible roads is prepared and formalized by Decree every two years. A new law was proposed following the road maintenance strategy that was published in 2009, and is currently under review by the Parliament: it aims to increase FER's resources (from a current annual budget of US\$5 million to US\$40 million). Regarding the maintenance of the roads that are not eligible to FER funding (mainly the tertiary and local level roads), MTPTC and the national budget are in charge. MTPTC commonly uses the force account mechanism to implement FER financed activities, or it contracts firms, and/or involves community-based organizations directly. FER cannot finance road rehabilitation or construction works.

The Bank, EU and IDB, have been financing capacity strengthening activities for MTPTC to further develop, plan and implement road maintenance plans and to protect existing assets. Total road assets in Haiti are estimated at approximately US\$1.5 billion. The two principal recommendations from the road maintenance strategy that was developed and published in 2009 were: (i) to reinforce road maintenance centers at the departmental level, and (ii) to increase resources available to FER (by Law) from the current annual budget of US\$5 million to US\$40 million.

Subcomponent A.4: Supporting the application of best practices addressing the issue of climate resilience (US\$0.5 million PPCR)

23. The Project will support the development of technical guidelines and training programs for the incorporation of climate resilience in the design of road infrastructure through the provision of goods, consultants' services and Training.

24. Heavy rains and storms/hurricanes (and their associated flooding and landslides) are most destructive to transport and power infrastructure components such as roads, bridges, drains, culverts, pavement, logistic platforms, and power stations. In order to make these investments and infrastructures long-lasting and climate-resilient, several adaptation measures will need to be defined, from design to maintenance phase. The technical guidelines to be developed under this subcomponent will mainstream climate resilience best practice into both the design and the maintenance.

COMPONENT B – Improving infrastructure and management capacity of markets (US\$10.0 million, o/w US\$9.5 million IDA and US\$0.5 million from PPCR)

25. **This component will improve the infrastructure and management capacity of key selected urban and rural markets to link agricultural producers with the roads provided under Component A.** Hygiene and food safety, which are currently a critical problem in these markets, will also be a focus of these constructions/upgrades. Given the differences between

urban and rural markets, in terms of structure, coverage, governance and needs, different approaches will be adopted for their selection, design and management. Women's participation in the different processes will be strongly encouraged as they typically represent a large share of the market users, and most of the incoming production is transported by women. As such, the proposed Project will finance the following subcomponents:

Subcomponent B.1: Urban markets and associated facilities (US\$5.0 million; o/w US\$4.5 million IDA and US\$0.5 million PPCR)

26. The Project will improve a limited number of urban markets strategically located along the loop. A total of 16 urban markets were identified around the loop by CIAT-es, from which 10 are located in towns directly on the loop, 4 are located in other communes and 2 are in urban neighborhoods. These markets have a critical role for the exchange of goods, both inside and outside the loop. They also have the potential to be conceived as multipurpose infrastructure investments, offering a platform for services such as trading (in market weekdays), but also evacuation shelters for the population during or after extreme weather events, thus enhancing the access to essential services and promoting the vulnerability reduction impact of infrastructure investments.

27. Between two and four urban markets will be selected for upgrading and/or construction. The Project will support the rehabilitation and/or construction of selected urban markets and the associated facilities (such as logistical facilities, access roads, water and sanitation systems), and the improvement of their climate resilience and management capacity, through the carrying out of works and the provision of goods, consultants' services and Training. The markets will be selected based on specific criteria such as current state of markets, governance, access to undisputed land, support from local authorities, retail/wholesale dynamic, agricultural production (existing and potential) and trade patterns in the area. Expected beneficiary urban markets are Saint Raphaël (upgrading), Saint Michel (new construction), and possibly Titanyen (new construction) and Mirebalais (additional facilities and infrastructures to the Government-financed reconstruction project). In Saint Michel, where the Project will support the construction of a new market; it will also be the opportunity to support the development of the associated facilities for trade and transport, such as logistical platforms for merchandises.

28. The TA provided under this subcomponent will include *inter alia* the design, consultation/facilitation, or works supervision. Goods and works will include among others, the construction of new markets and service facilities, or upgrade of existing markets and services facilities, such as solar panels' installation, rainwater collection system, wheelchair access ramps. The "associated facilities" relate to the basic infrastructure connected to markets, such as access roads, logistical facilities, electricity, water and drainage, as needed and as specified in the investment and management plan which will be prepared with the support of a private Operator (see below). Particular attention will be paid to aspects of environmental and catastrophic-related resilience. Finally, training will include the topics such as governance, accounting, waste management, hygiene and gender.

29. Investment and management plan will be elaborated with support of an Operator. This Operator (NGO or private enterprise) will facilitate consultations with municipalities,

current and potential market users including buyers, sellers, public and private market service providers (storage, mills, slaughter, restrooms, etc.), women's associations, and will help with the elaboration of a complete investment and management plan.

30. **The construction or upgrades will be executed by a private contractor.** Based on the approval of the above-mentioned plan, UTE will contract a private contractor for the execution of the construction or upgrades, while the Operator will continue to work on supervision of the execution of the construction and training of municipalities and market users and local communities. Measures will be adopted to reduce vulnerabilities and enhance disaster risk management in light of climate variability in the region, and mainstream best practice for gender-aware and climate-resilient infrastructures.

Subcomponent B.2: Rural markets (US\$5.0 million from IDA)

31. **This subcomponent will finance the rehabilitation and/or construction of 4 to 8 rural markets and the same activities as Subcomponent B.1, but through a competitive scheme.** The Project will support the rehabilitation and/or construction of selected rural markets and the associated facilities selected based on a participatory decision-making mechanism involving the local authorities and the existing local CTDs expanded to include other stakeholders such as the civil society and the private sector, and the improvement of their management capacity, through the carrying out of works and the provision of goods, consultants' services and Training.

32. The TA provided under this subcomponent will include *inter alia* design, consultation/facilitation, works supervision. Goods and works will include among others, the construction of new markets and service facilities or upgrade of existing markets such as solar panels' installation, rainwater collection system, wheelchair access ramps. Training will include sessions addressing the issues of governance, accounting, waste management, hygiene and gender. The "associated facilities" relate to the basic infrastructure connected to markets, such as access roads, small logistical facilities, electricity, water and drainage, climate-proof roofing and flooring, as needed and as specified in the investment and management plan which will be prepared with the support of the Operator. Particular attention will be paid to aspects of environmental and catastrophic-related resilience. In terms of scale, a rural market typically in the CAL region has a footprint of 3,000 to 4,000 m² and hosts 50 to 200 merchants.

33. **This component will combine a top-down and a bottom-up approach.** Under this scheme, CIAT-es will first select "priority zones" where rural markets will be supported, based on a limited number of criteria such as current agricultural production, agricultural potential (including soil, access to water, slopes) and based on the result of studies being financed under the Project Preparation Facility (PPF). A short-list of potential rural markets eligible for support will be prepared and approved by Year 1 of the Project, based on those criteria and additional ones such as synergies with other components (especially Subcomponent A.2), trade flows and volumes, current usage capacity or proximity to primary, secondary or tertiary roads.

34. In order to mitigate elite capture and the risk that women (and other excluded groups) are under-represented in decision-making, the competitive scheme will include an inclusive mechanism and consultation strategy. For instance, though women merchants/sellers can be seen

on markets, their voice may be more rarely heard in the management of such markets. Yet, it will be important to ensure that their voice is taken into consideration in decisions related to the improvement of market infrastructure (for instance for the development of facilities accounting for the specific needs of women and their vulnerability to physical violence) and to their maintenance (for instance in the management of tax collection from merchants, currently very low when existing, for the purpose of ensuring said maintenance). It will be crucial to identify the appropriate vehicle(s) through and with which inclusive consultations could take place, such as the CASECs in the “*Sections Communales*”.

35. **UTE will be responsible for implementation**, and have technical support from CIAT-es and MARDNR. The mechanism to select the rural market investments is summarized hereafter (and will be detailed in the OM): (i) a call or calls for proposals will be issued for the short-listed rural markets to prepare and submit an investment and management plan; (ii) these plans will be prepared by the local authorities (Mayors and CASECs administrating the short-listed communes and “*Sections Communales*” respectively) in consultation with the civil society and with support and facilitation from an Operator hired by UTE (these plans will cover fundamentals such as investment needs, management and maintenance plan, basic financial projections, initial investment designs, budget and governance, economic/financial return, understanding and issues of social and environmental safeguards); (iii) UTE will proceed with the evaluation of the proposals against an agreed set of finer criteria (defined upfront by CIAT-es and UTE with support from MARDNR and MTPTC), in consultation with a Selection Committee composed of representatives from the three Departments covered by the CAL; UTE will then recommend the final selection to be approved by the appropriate CTD, which is a meeting called up by the Departmental Delegate and includes all the departmental representatives of the line Ministries – under the proposed Project, CTDs will be expanded to include other local stakeholders such as local communities, the private sector, the civil society; (iv) the construction will be executed by a private contractor, while the Operator will undertake the supervision and training.

COMPONENT C – Supporting the development of regional knowledge, planning capacity and local participation (US\$6.0 million, o/w US\$3.0 million IDA and US\$3.0 million PPCR)

36. **The Project will support the development and dissemination of knowledge, including climate resilience aspects, methodologies and tools to inform territorial and urban planning and opportunities for public and private investments ultimately.** The component will finance TA mainly, trainings, goods and costs that will support the GoH, municipalities and local stakeholders to build and disseminate improved territorial knowledge of the CAL, and to effectively plan and make consensual decisions.

Subcomponent C.1: Improving regional knowledge (US\$2.0 million, o/w US\$1.0 million IDA and US\$1.0 million PPCR)

37. This subcomponent will support the development of regional knowledge including climate resilience aspects, through: (a) the carrying out of a vulnerability assessment of the road network; (b) the preparation of studies, plans and guidelines; (c) the development of information systems; (d) the provision of TA to strengthen the capacity of CIAT-es; and (e) the development of a dashboard tool capturing key development indicators and investments at regional level; all

through the provision of goods and consultants' services.

38. The information generated under this subcomponent will enrich the database already actively developed by CIAT-es and other Governmental entities such as CNIGS (*Centre National de l'Information Géo-Spatiale*). The support provided to CIAT-es will address amongst others, the capacity need to manage and share the information, including the one specifically related to climate resilience, at the PPCR program country level and regional level with the Caribbean Regional PPCR program. This subcomponent will provide GoH and public and private actors, baseline and updated indicators. It will finance, *inter alia*: economic, social and environmental studies, sector strategic assessments, agricultural production and follows, spatial analyses, urban studies and plans, vulnerability and natural hazard assessment,¹⁴ climate modeling and adaptation plans to inform decision makers and practical guidelines to enhance infrastructure investments' resilience. A number of these analytical studies were planned as part of the PPF. These knowledge management tools will provide added-value to infrastructure hard investments and contribute to the long-term sustainability of the Project.

Subcomponent C.2: Supporting the development of regional planning capacity and local participation (US\$4.0 million, o/w US\$2.0 million IDA and US\$2.0 million PPCR)

39. **The Project will support the development of regional planning capacity, including climate resilience mainstreaming, and local participation through:** (a) the preparation of a regional programmatic development agenda; (b) supporting the implementation of the participatory decision-making mechanism at the local level to identify local priorities and investments; and (c) enhancing the capacity of existing local CTDs, the technical services of selected municipalities, CASECs and CBOs, through the carrying out of small works and the provision of goods, consultants' services and Training.

40. **The participatory decision-making mechanism will combine a top-down and a bottom-up approach.** Regarding the top-down approach: the Project will support the development of a regional programmatic agenda, reflecting the GoH's vision and priorities. This regional agenda will provide guidance to stakeholders and help better plan and coordinate the development of the CAL by identifying and sequencing regional and local investment needs. It will also pair with a dashboard tool capturing key development indicators and investments in the region. TA will be provided to Departmental and Municipal entities in the CAL region to develop their regional planning capacity and to mainstream climate resilience best practices in local policies. Regarding the bottom-up approach: proposed Project will support the establishment of a participatory decision-making mechanism at the local level to identify local priorities and investments, within the scope of Components A and B.

41. **This subcomponent will also support broader dissemination and exchange of information between regional stakeholders,** using existing local administration consultation tables, the CTDs, chaired by the local representatives of the national Government, expanded to include the municipalities, selected communities, the civil society and local stakeholders such as Chambers of Commerce and associations of producers.

¹⁴ The climate-related information and risk and vulnerability assessments for decision making will be developed under this subcomponent and in coordination with the PPCR's Investment Project 4: "Strengthening knowledge management of hydrological, water resources and climate data to inform decision making and policy dialogue".

42. The mechanisms developed under this subcomponent, though specifically designed to implement the activities financed by the Project, will also support the initiative of the GoH to strengthen, drive and implement the overall development agenda for the CAL region, which goes beyond the activities financed by Component A and B. This initiative is similarly underway in the other regions of the country such as the North/Northwest corridor, and the South Peninsula.

COMPONENT D – Contingent Emergency Response Component (US\$1.0 million IDA)

43. Due to the high risk of a catastrophic event in Haiti, the proposed Project includes a provisional component, designed as a mechanism for rapid response in the event of an emergency. Such components of “Provision of support to respond to an eligible emergency, as needed”, which include triggers and conditions for the use of funds, are included in most investment projects in Haiti in keeping with the recommendations of the 2011 World Development Report (WDR) on Conflict, Security and Development and with the operational experience acquired in Haiti since the 2010 earthquake.

44. Following an adverse natural event or crisis affecting the country during the execution period of the proposed Project, the Recipient may request the Bank to re-allocate Project funds to support response and reconstruction. This “CERC” component would facilitate the rapid re-categorization of financing and additionally financing request under streamlined procedures during an emergency, should the Government so request. This component would be implemented in accordance with the Bank’s Special Considerations under OP/BP 10.00, and all expenditures would be appraised, reviewed and found to be acceptable to the Bank prior to any disbursements. Disbursements would 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.

45. Preparatory work would be undertaken for the design of the component, including: (i) preparation of an agreed upon preliminary emergency recovery Action Plan of activities; (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 subprojects; and (iv) a list of firms (national and regional) that have a demonstrable track record in emergency response activities related to the anticipated nature and scope of those required. A CERC OM would apply to this component detailing financial management, procurement, safeguard and any other necessary implementation arrangements.

46. Specific eligible expenditures under the category of Goods could include: (i) construction materials; (ii) water, land, and air transport equipment, including spare parts; (iii) agricultural equipment and inputs (excluding pesticides); (iv) school supplies and equipment; (v) medical supplies and equipment; (vi) petroleum and fuel products; (vii) construction equipment and industrial machinery; (viii) communications equipment; (ix) seeds and fertilizer; (x) food and water containers and any other goods items acceptable to the Bank, and agreed upon between the Borrower and the Bank.

47. Specific eligible expenditures under the category of Works could include urgent 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.

48. 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.

49. If not disbursed 24 months prior to the closing date of the proposed Project, the amount of SDR 650,000 (US\$1.0 million equivalent) would be reallocated to finance activities under other Project components.

COMPONENT E – Project Implementation, Monitoring and Evaluation (US\$4.0 million IDA)

50. This component will finance the activities of the implementing agency, the *Unité Technique d'Exécution* (UTE), a project implementation unit under the responsibility of the MEF. This unit already implements national projects and projects financed by other donors including the IDB, and is also considered for another IDA-operation (the Cultural Heritage Preservation and Tourism Sector Support Project, P144614). It will coordinate, evaluate, supervise and implement the proposed Project. CIAT-es, MTPTC and MARNDR will be partner institutions for the proposed Project. Funding will provide support to MEF, CIAT-es, MTPTC and MARNDR for the Project management, monitoring and evaluation (M&E), through the carrying out of small works and the provision of goods, consultants' services, Training and Operating Costs. More specifically, funding will be provided to: (i) strengthen UTE's capacity to comply with its responsibilities under the proposed Project's OM, including the hiring of specialized staff (such as social, environmental, and procurement specialists), training and operating costs; (ii) cover staffing and operating costs for governmental institutions or ministries involved in providing technical support to UTE, such as CIAT-es, MTPTC, and MARNDR; and (iii) conduct Project audits, including independent performance reviews and beneficiary assessments.

51. This component will also contribute to generating an information system that tracks crucial development outcomes and their changes over time, which will help understand Project results, their magnitude and their sustainability. A set of M&E indicators will help track how transformational the Project is, and in particular how the Project will generate inclusion in gender and other dimensions, and more broadly, how it contributes to shared prosperity and extreme poverty reduction in the CAL region. In addition, as part of the development of Haiti's SPCR, CIAT-es has been working on developing a sound reporting system for the PPCR in general (at the country level and as part of the regional Caribbean program) and on strengthening institutional capacities for M&E. This work will be consolidated, as relevant under the proposed Project.

Annex 3: Implementation Arrangements

HAITI: Center and Artibonite Regional Development Project

I. Project Institutional and Implementation Arrangements

1. **Overall coordination and implementation responsibility.** The Ministry of Economy and Finance (MEF) is the Counterpart for the Project, given the overarching Project objective of diversifying the economy and improving growth outside Port au Prince, and will use its existing implementing agency *Unité Technique d'Exécution* (UTE). CIAT-es, MTPTC and MARNDR will be Project partner institutions, and a Steering Committee for the Project will be created (see paragraph 3). The GoH shall vest the overall responsibility for the implementation of the Project in MEF. The GoH shall ensure that MEF, on behalf of MTPTC, MARNDR and CIAT-es, shall carry out the Project in accordance with the Operations Manual (OM). The OM will specify the managerial, financial, administrative, engineering, procurement, environment and social policies and procedures of the execution of the Project.

2. For the purpose of carrying out the Project, MEF shall by no later than one month as of the Effective Date enter into appropriate institutional arrangements, satisfactory to the Association, with MTPTC, MARNDR and CIAT-es. The said arrangements consist in summary in UTE managing all fiduciary, procurement, safeguards, monitoring and evaluation and technical aspects of the Project, coordinating implementation with the Project partner institutions and being ultimately responsible for compliance with Project requirements, procurement guidelines, and implementation actions and schedule; and Project partner institutions playing a strategic and technical role summarized in Table 5.

3. For the purpose of ensuring the proper coordination and execution of the Project, the GoH shall operate and maintain the Steering Committee within UTE throughout the duration of the Project. The Steering Committee shall be chaired by the Executive Secretary of CIAT, with membership consisting, *inter alia*, of representatives of the technical departments and units within MEF, MTPTC, MARNDR and CIAT as well as representatives of local stakeholders, as set forth in the OM. The functions of the Steering Committee include, *inter alia*: (a) ensure consistency of activities with the achievement of Project development objectives; and (b) review annual monitoring reports and audits to validate recommendations for improvement and take appropriate actions in support of implementation; all in accordance with the OM.

4. **UTE's Structure and capacity.** This is the first time UTE will implement a World Bank project; however, it has experience and capacity to handle large multi-sectoral projects (including IDB-financed projects). Procurement and financial management assessments, as well as its good track record in implementing projects of other donors, including multi-sectoral complex infrastructure projects, and Project Preparation Facilities (PPFs) for both the Cultural Heritage Preservation and Tourism Sector Support Project (P144614) and the proposed Project, indicate that it is an effective Project Implementation Unit (PIU). UTE initiated organizational restructuring and strengthening to better adapt its structure to the nature and volume of the projects under its responsibility. Taking into consideration UTE's other responsibilities, the Project will strengthen the implementation capacity of UTE by financing salaries, consultants for specific tasks, operational costs, and goods to provide the necessary conditions for successful implementation.

5. **UTE’s Tasks.** For the management of fiduciary aspects of the Project, UTE shall: (i) appoint a Project director, a procurement specialist, an environmental specialist, and a social specialist with qualifications, experience and terms of reference (TORs) acceptable to the Association, to coordinate with the MTPTC, MARNDR and CIAT-es the management of the fiduciary aspects and to ensure that the procurement of works, goods, consultants’ and non-consulting services under the Project is conducted as per the Procurement Guidelines and Consultant Guidelines; (ii) enter into contracts with contractors and/or goods and/or service providers under terms and conditions acceptable to the Bank; (iii) prepare, maintain and submit monthly, quarterly, and annual Project progress reports to MTPTC, MARNDR and CIAT-es; (iv) prepare Financial Statements; (v) have the Financial Statements audited in accordance with Bank’s procedures; (vi) coordinate with MTPTC, MARNDR and CIAT-es and ensure that documents, reports and information are promptly provided to MTPTC, MARNDR and CIAT-es; (vii) ensure that the Project is carried out in accordance with sound administrative, engineering, accounting and environmental standards pursuant to the provisions of the Agreement with the Bank, the applicable Safeguards Documents, the Anti-Corruption Guidelines, and the OM; (viii) make available to MTPTC, MARNDR, CIAT-es and the Project auditors all documents, books, and records pertaining to the Project activities; and (ix) respond to queries, report findings and comments by MTPTC, MARNDR, CIAT-es and the Project auditors. The GoH shall through UTE appoint a Project infrastructure engineer on behalf of *Unité Centrale d’Exécution* (UCE, the existing implementing agency at MTPTC), and a Project technical officer on behalf of CIAT-es. Under the PPF (signed on February 26, 2014), the Bank granted a no-objection for the financing of: (i) part of the dedicated personnel required to administer the Project within UTE, coordinate partners and local consultations; and (ii) preparatory studies including the development of strategic assessments and technical guidelines.

6. **The Project implementing arrangements** are summarized in the following table, and the decision-making mechanisms will be described in details in the OM.

Table 5: Implementation Responsibilities per Component

Component	Implementation	Oversight
A. Enhancing logistics, transport connectivity and climate resilience		
A.1. Improving the structuring road network	MEF/UTE	MTPTC
A.2. Improving the rural road network	MEF/UTE	MTPTC with technical support from MARNDR and CIAT
A.3. Strengthening road maintenance capacity and mechanisms at the local level	MEF/UTE	MTPTC
A.4 Supporting the application of best practices addressing the issue of climate resilience	MEF/UTE	CIAT with technical support from MTPTC
B. Improving infrastructure and management capacity of markets		
B.1 Urban markets and associated facilities	MEF/UTE	UTE with technical support from CIAT and Municipalities
B.2.Rural markets	MEF/UTE	UTE with technical support from CIAT and (Sub-)Municipalities
C. Supporting the development of regional knowledge, planning capacity and local participation		
C.1 Improving regional knowledge	MEF/UTE	CIAT
C.2 Supporting the development of regional planning capacity and local participation	MEF/UTE	CIAT
D. Contingent Emergency Response Component		
Project Coordinating Authority with oversight from MEF/UTE		
E. Project Implementation, Monitoring and Evaluation		
E.1 Project Implementation	MEF/UTE	MEF/UTE
E.2 Monitoring and Evaluation	MEF/UTE	MEF/UTE with technical support from CIAT and MTPTC

Project costs and financing

Table 6: Project Cost and Financing (per Component and Subcomponent)

Project Components	Project cost	IDA Financing	CIF Financing	% Financing
A. Enhancing logistics, transport connectivity and climate resilience	37.0	32.5	4.5	100
A.1 Improving the structuring road network*	27.5	25.5	2.0	
A.2 Improving the rural network**	4.9	3.0	1.9	
A.3 Strengthening road maintenance capacity and mechanisms at the local level	4.1	4.0	0.1	
A.4 Supporting the application of best practices addressing the issue of climate resilience	0.5	0.0	0.5	
B. Improving infrastructure and management capacity of markets	10.0	9.5	0.5	100
B.1 Urban markets and associated facilities	5.0	4.5	0.5	
B.1 Rural markets	5.0	5.0	0.0	
C. Supporting the development of regional knowledge, planning capacity, and local participation	6.0	3.0	3.0	100
C.1 Improving regional knowledge	2.0	1.0	1.0	
C.2 Supporting the development of regional planning capacity and local participation	4.0	2.0	2.0	
D. Contingent Emergency Response Component	1.0	1.0	0.0	100
E. Project Implementation, Monitoring and Evaluation	4.0	4.0	0.0	100
D.1 Project Implementation				
D.2 Monitoring and Evaluation				
Total Project Costs	58.0	50.0	8.0	100
Total Financing Required	58.0	50.0	8.0	100

* *primary + secondary + tertiary roads*

** *feeder roads + rural pathways*

II. Financial Management, Disbursements and Procurement

Financial Management

7. Overall, the approach to project implementation is to use existing capacity in Haiti to manage the operational financial management (FM) aspects of the Project. To this end, the decision was made to use UTE within MEF. UTE will have the financial responsibility over the proposed Project and will be directly responsible for the implementation of all components. UTE has significant previous experience in the implementation of multilateral financing, such as financing from the IDB, EU, CIDA (Canadian International Development Agency) and USAID. Currently, UTE is managing a portfolio of projects totaling more than US\$400 million, and thus, has implemented a satisfactory FM system. However, to ensure that UTE maintains adequate FM arrangements to handle the additional activities generated by the Project, which are already in process of being implemented with support from a PPF, **the following recommendations were made:** (a) **Review** the roles and responsibilities of FM and Administrative staff to accommodate the additional workload; (b) **Train** the FM and Administrative staff in Bank's FM policies and norms; (c) **Include** Project specific information including administrative,

accounting, and finance procedures in the OM; **(d) Calibrate** the FM system to enable its use for the proposed Project and provide training to newer accounting staff; **(e) Hire** an external auditor within four months of Project Effectiveness, based on TORs acceptable to IDA.

8. The proposed FM arrangements at UTE for the Project meet the minimum fiduciary requirements under OP/BP10.00. Project FM arrangements will operate as follows:

9. **Staffing.** UTE has adequate FM staff in place, with adequate qualifications and experience. Their roles and responsibilities will be revised to include the additional workload under the Project, but no additional staff will be needed for the proposed Project. As UTE has relatively limited experience with Bank-financed projects, some initial training of the FM staff will be necessary.

10. **Designated Accounts.** Two segregated Designated Accounts (DAs) will be opened in the Central Bank of the Republic of Haiti (*Banque de la République d’Haïti*, BRH) to be managed by UTE, to receive and make payments from the IDA Grant (US\$50.0 million) and from the PPCR Grant (US\$8.0 million), according to the disbursement procedures that will be described in the two respective Disbursement Letters. Additionally, two other accounts handled in Haitian Gourdes will be opened in the BRH and will also be managed by UTE to process payments. Documentation for all transactions shall be retained by UTE and shall be made available for audit and to the Bank and its representatives, if requested. Detailed disbursement procedures will also be stipulated in the OM.

11. **Budgeting and Funds Flow.** The budget process will be clearly stipulated in the OM (including administrative, financial and accounting procedures). Annual budgets and work plans will be coordinated and prepared by UTE and submitted to the Bank no-objection at the beginning of the fiscal year and any changes in the budget and work plans will also be submitted to the Bank no-objection.

12. **Accounting.** A manual with UTE’s administrative, financial and accounting procedures (as the implementing agency for other ongoing projects) already exists and will be updated with a section specific to the proposed Project (and to be included in the Project’s OM). This section will be available not later than six months after Project Effectiveness. Project transactions will be recorded following the cash accounting basis in the existing accounting software (ACCPAC), which ensures adequate transparency and specific controls in budget execution. The system is expected to enable the preparation of interim and annual financial statements. A consultant will be hired to calibrate the system to enable its use for the proposed Project and provide training to newer accounting staff. Detailed FM documentation will be maintained in the Project files for each component that it will manage.

13. **Internal controls:** UTE will ensure that staffing arrangements in its FM department are in place and sufficient to ensure adequate internal controls, preparation, approval and recording of transactions as well as segregation of duties. UTE already has available various operations manuals which will be consolidated into one single manual with specific annex for each project managed by UTE (ongoing work).

14. **Financial reporting:** UTE will be responsible for the overall reporting. Through the

FM specialist at UTE, the Project Coordinator at UTE will ensure that semi-annually Interim un-audited Financial Reports (IFRs) are prepared and transmitted to the Bank. The IFRs' reporting format will be documented. These semi-annually IFRs will contain at least: (i) a Statement of Sources and Uses of Funds (with expenditures classified by components and subcomponents, and the Sources of Funds being IDA or SCF in the proposed Project) and cash balances; (ii) a Statement of Budget execution per subcomponents; and (iii) a reconciliation of the DAs will be furnished to the Bank not later than 45 days after the end of the semester. Annual consolidated financial statements will be prepared by UTE and will be subject to annual external audits. The audit report will be furnished to the Bank not later than six months after the end of such each period.

15. **External audits:** The annual financial statements of the Project as well as the system of internal controls will be subject to an annual audit by a reputable, competent and independent auditing firm, based on TORs satisfactory to the Bank. The auditor will provide an opinion on the Project's consolidated financial statements prepared by UTE, as per auditing standards acceptable to the Bank. The audit report will be submitted to the Bank not later than six months after the end of each fiscal year, or the end of each period covered by the audit. In addition to the audit report, the auditor will also provide, in a separate document, a management letter detailing the status of the internal control systems in UTE. The Procurement Plan approved at Negotiations will plan for the recruitment of external auditors for the first external audit within four months after the Grant Effectiveness.

16. **Implementation support missions:** In addition to the regular internal and external audits, the Bank team will conduct frequent implementation support missions (see the Implementation Support Plan in Annex 5). During these missions, the Bank FM specialists will evaluate the FM arrangements to ensure that they remain adequate for the implementation of the proposed Project.

17. **Risk Rating.** Overall, the Project risk for FM is Substantial.

Disbursements

18. **Disbursements** from the IDA's Grant and disbursements from the SCF's Grant will follow the transaction-based method, that is, traditional Bank procedures: (i) Advances; (ii) Reimbursements through Statements of Expenses (SOEs); (iii) Direct Payments; and (iv) Special Commitments. The initial deposits into the DAs will be based on a four-month forecast prepared by UTE to be submitted with the Withdrawal Applications. Subsequent disbursements into the DAs will be based on SOEs, and accompanied by Withdrawal Applications, reconciled bank statements and copies of all bank statements. The supporting documentation for requests for direct payment should include records which provide evidence of eligible expenditures (copies of receipts, supplier's invoices).

Table 7: Disbursement Categories for IDA and CIF Grants

IDA Category	Amount of the Grant Allocated, in USD equivalent (and SDR)	Percentage of Expenditures to be Financed (inclusive of Taxes)
(1) (a) Works for Parts A.1 and A.2 of the Project	(a) 25,500,000 (SDR 16,502,000)	(a) 100%
(b) Goods, non-consulting services, consultants' services and Training for Parts A.1 and A.2 of the Project	(b) 2,560,000 (SDR 1,661,000)	(b) 100%
(c) Goods, works, non-consulting services, consultants' services and Training for Part A.3 of the Project	(c) 4,000,000 (SDR 2,592,000)	(c) 100%
(2) Goods, works, non-consulting services, consultants' services and Training for Part B of the Project	9,100,000 (SDR 5,890,000)	100%
(3) Goods, works, non-consulting services, consultants' services and Training for Part C of the Project	1,940,000 (SDR 1,260,000)	100%
(4) Goods, works, non-consulting services, and consultants' services for Part D of the Project	1,000,000 (SDR 650,000)	100%
(5) Goods, works, non-consulting services, consultants' services, Training and Operating costs for Part E of the Project	2,570,000 (SDR 1,670,000)	100%
(6) Refund of Preparation Advance	3,330,000 (SDR 2,175,000)	Amount payable pursuant to Section 2.07 of the General Conditions
TOTAL AMOUNT	50,000,000 (SDR 32,400,000)	

CIF Category	Amount of the Grant Allocated, in USD	Percentage of Expenditures to be Financed (inclusive of Taxes)
(1) (a) Works for Parts A.1 and A.2 of the Project	(a) 3,800,000	(a) 100%
(b) Goods, non-consulting services, consultants' services and Training for Parts A.1 and A.2 of the Project	(b) 100,000	(b) 100%
(c) Goods, works, non-consulting services, consultants' services and Training for Part A.3 of the Project	(c) 100,000	(c) 100%
(d) Goods, consultants' services and Training for Part A.4 of the Project	(d) 500,000	(d) 100%
(2) Goods, works, non-consulting services, consultants' services and Training for Part B	500,000	100%
(3) Goods, works, non-consulting services, consultants' services and Training for Part C of the Project	3,000,000	100%
TOTAL AMOUNT	8,000,000	

Procurement

19. **Procurement for the proposed Project will be carried out in accordance with the World Bank Guidelines: Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants** dated January 2011 and *Guidelines: Selection and Employment of Consultants under IBRD Loans & IDA Credits & Grants by World Bank Borrowers* dated January 2011 and the provisions stipulated in the Financing Agreement. For each contract to be financed by the Project, the different procurement methods or consultant selection methods, the need for prequalification, estimated costs, prior review requirements, and time frame are agreed between the Recipient and the Bank in the Procurement Plan. The Procurement Plan will be updated at least annually or as required to reflect the actual Project

implementation needs and improvements in institutional capacity.

20. **Procurement activities for the Project will be executed by UTE for all project activities.** The Project’s OM, drafted and submitted by UTE, includes adequate provisions that meet the Bank’s requirements. Based on a preliminary assessment of its capacity, UTE appears to have sufficient experience implementing procurement financed by other donors (IDB, Canada, France, USAID) to manage procurement under the proposed Project. However, UTE’s personnel will most likely need to be reinforced by the addition of at least one more expert in procurement, as its current work load already stretches the capacity of the four members of the procurement team. In addition, the unit’s procurement staff should receive intensive training in Bank policies and procedures. With this strengthening, UTE should be well equipped to execute procurement according to World Bank Guidelines. However, the overall public procurement system in Haiti remains relatively weak. Despite some pre-earthquake reforms in the legal and institutional framework for procurement, human and physical capacity constraints have delayed the adoption of improved contracting practices in most Government agencies. Consequently, the overall Project risk for procurement is Substantial.

21. **Procurement Plan, Thresholds for Procurement Methods and World Bank Review.** The summary procurement plan for implementation of the proposed Project was agreed between the Recipient and the Project Team during Appraisal and is presented in the following table (excluding PPF). The plan will be updated at least annually or as required to reflect the actual Project implementation needs and improvements in institutional capacity. Bidding documents will be made available to the public through MEF’s website. The recommended thresholds for the use of the procurement methods specified in the Financing Agreement are identified in Table 9 below. Supervision of procurement will be carried out primarily through prior review supplemented by supervision missions at least twice a year.

Table 8: Summary Procurement Plan for the First 24 Months of Project Implementation

1	2	3	4	5	6	7	8
Ref. No.	Description	Estimated Cost US\$ million	Procurement Method	Domestic Preference (Yes/No)	Review by Bank (Prior/Post)	Comments	Sources of Funds
1	CONSULTANT SERVICES	8.53					
1.1	Operators’ services for Component A	0.80	CQS	N/A	Prior		IDA
1.2	Operators’ services for Component B	1.00	QCBS	N/A	Prior	Multiple packages (2)	IDA
1.3	Design studies for urban market rehabilitation/construction	0.50	CQS	N/A	Prior	Multiple packages (3-5)	IDA
1.4	Audit Services	0.10	QCBS	See comments	Prior	Short list made of national firms only	IDA
1.5	Monitoring and Evaluation Surveys	0.30	CQS	N/A	Prior	Multiple packages	IDA and SCF
1.6	Analytical studies under Component C.1	1.00	CQS	N/A	Prior	Multiple packages (3-4)	IDA and SCF
1.7	Rehabilitation plans and/or design study for road maintenance centers in selected towns	0.30	CQS	N/A	Prior		IDA

1.8	Detailed design studies for Saut d'Eau – Titanyen Road	0.50	QCBS	N/A	Prior		IDA
1.9	Individual consultants and technical assistance to UTE, CIAT-es and MTPTC	1.00	Individual Consultants	N/A	Prior	Multiple packages	IDA
1.10	Supervision services for the rehabilitation and construction works • on Saut D'eau – Titanyen Road	0.30	LCS	N/A	Prior		IDA
1.11	• on Saut D'eau – Titanyen Road cross road with RN1 improvement	0.10	LCS	N/A	Prior		IDA
1.12	• on Dessalines – Saint Michel Road bridges and drainage	0.50	LCS	N/A	Prior		IDA
1.13	• on Dessalines – Saint Michel Road spots improvements	0.30	LCS	N/A	Prior	Multiple packages potentially	IDA
1.14	• on Saint Michel – Saint Raphaël Road	0.30	LCS	N/A	Prior	Multiple packages potentially	IDA
1.15	• on Maïssade – Hinche Bridge on river Frio	0.25	LCS	N/A	Prior		IDA
1.16	• on Maïssade – Hinche spots improvement	0.25	LCS	N/A	Prior	Multiple packages potentially	IDA
1.17	Supervision services for the rehabilitation works and application of climate adaptation measures on selected critical spots	0.40	LCS	N/A	Prior	Multiple packages potentially	SCF
1.18	Supervision services for the rehabilitation works on selected critical spots, drainage works on selected tertiary roads	0.50	LCS	N/A	Prior	Multiple packages potentially	IDA
1.19	Supervision services for the rehabilitation works on two road maintenance centers respectively in Hinche and Mirebalais	0.08	LCS	N/A	Prior		IDA
1.20	Supervision services for the construction works for a road maintenance center in Saint Michel	0.05	LCS	N/A	Prior		IDA
2	WORKS	30.30					
2.1	Rehabilitation and construction works • on Saut D'eau – Titanyen Road	3.00	ICB	Yes	Prior		IDA
2.2	• on Saut D'eau – Titanyen cross road with RN1 improvement	1.00	NCB	No	Prior		IDA
2.3	• on Dessalines – Saint Michel Road bridges and drainage	5.00	ICB	Yes	Prior		IDA
2.4	• on Dessalines – Saint Michel Road spots improvements	3.00	NCB	No	Prior	Multiple packages (2-4)	IDA
2.5	• on Saint Michel – Saint Raphaël Road	3.00	NCB	No	Prior	2 packages	IDA
2.6	• on Maïssade – Hinche Bridge on river Frio	2.50	ICB	Yes	Prior		IDA
2.7	• on Maïssade – Hinche spots improvements	2.50	NCB	No	Prior	Multiple packages (2-4)	IDA
2.8	Rehabilitation works and application of climate adaptation measures on selected critical spots	4.00	NCB	No	Prior	Multiple packages (4-8)	SCF
2.9	Rehabilitation works on selected critical spots, drainage works on selected tertiary roads	5.00	NCB	No	Prior	Multiple packages (8-12)	IDA

2.10	Rehabilitation works on two road maintenance centers respectively in Hinche and Mirebalais	0.80	NCB	No	Prior		IDA
2.11	Construction works for a road maintenance center in Saint Michel	0.50	NCB	No	Prior		IDA
3	GOODS	0.40					
3.1	Office furniture, computers, software, generators and IT systems for road maintenance and MTPTC services	0.30	Shopping	No	Prior	Multiple packages (4-6)	IDA
Total of US\$39.23 million							

Table 9: Thresholds for Procurement Methods and Prior Review *

Expenditure Category	Contract Value Threshold (US\$ thousand)	Procurement Method	Contracts Subject to Prior Review (US\$ thousand)	
1. Works	>2,000	ICB	All	
	250-2,000	NCB	First three contracts and all contract above 500	
	<200	Shopping	First three contracts	
	<200	Force Account	All	
	Regardless of value	Direct Contracting	All	
	Regardless of value	UN agencies	All	
2. Goods	>500	ICB	All	
	100 -500	NCB	First three contracts and all contracts above 150	
	<50	Shopping	First three contracts	
	Regardless of value	Direct Contracting	All	
	Regardless of value	UN agencies	All	
3. Consulting Services	Regardless of value	QCBS, QBS, FBS, LCS	First three contracts and all contracts above 200	
	-3.A Firms	<300	CQS	First three contracts and all contracts above 200
	Regardless of value	UN agencies	All	
	Regardless of value	Single Source	All	
-3.B Individuals	Regardless of value	In accordance with Chapter V of Consultant Guidelines	First three contracts and all contracts above 100 and all single source selection above 50	

* The herein defined procurement thresholds and rules are currently under review by the Country Management Unit and the Regional Procurement Department to be better adjusted to the Haitian environment.

Abbreviations:

ICB = International Competitive Bidding

NCB = National Competitive Bidding

DC = Direct Contracting

LCS = Least-Cost Selection

CQS = Selection Based on Consultants' Qualifications

QCBS = Quality- and Cost-Based Selection

QBS = Quality-Based Selection

FBS = Fixed Budget Selection

SSS = Single Source Selection

Environmental and Social (including safeguards)

22. The environmental impact of the works envisioned under Component A will certainly generate positive results. The road networks and transportation in general will be more climate-resilient and able to withstand weather related shocks. Negative environmental impacts are largely related to the construction phases of the Project and will require the appropriate action

plans to: (i) ensure proper waste disposal, (ii) avoid water contamination, (iii) prevent erosion, and (iv) put in place a strong occupational health monitoring. These action plans will also reflect the specificities of flood-prone areas (and specific measures for instance with regard to construction material and flood controls).

23. Under Component B, siting will be particularly important with regard to the construction of new markets to ensure not only aspects such as accessibility, community interest in a market, etc., but also access to water for sanitary/toilet facilities. A study will be conducted prior to investment to assess the environmental and social implications involved in expanding or rebuilding a market. The environmental aspects can be assessed as part of the Environment Management Plans (EMP) (if the consultant in charge has the adequate competence). They will have to address issues related to water accessibility, potential sources of water contamination from the market, waste disposal methods and hygiene methods that will decrease the possibility of diseases such as cholera. An EMP for the markets will assess issues related to sanitation and solid waste management, water supply and food safety issues. It will also assess what is needed from the communities or GoH, in order to manage and maintain these facilities, particularly cleaning of the market grounds as well as toilet facilities. Options such as market associations may be considered. The Project will also explore how to generate revenues to ensure continued maintenance of new market infrastructure.

24. *Environmental Assessment (OP/BP 4.01)* is triggered, and environmental safeguard instruments for Components A and B will include: (i) an Environmental and Social Management Framework (ESMF) for the Project; (ii) an Environmental Management Plan (EMP) for the roads with a detailed section for each road segment; (iii) EMP for the bridges with a detailed section for each specific bridge; (iv) an EMP for the market construction and/or rehabilitation. One generic EMP for the markets will suffice with detailed sections on the specific site related issues of each site. The EMP will address the adequacy and impact of current and proposed waste disposal mechanisms and whether the current system (for existing markets) is adequate in the face of market expansion. The EMP will also examine sanitation (adequacy of sanitary waste disposal and impact on ground water, etc.), as well as water supply and food management (storage, food safety, disease and vector control, etc.). The ESMF will also cover small-scale rehabilitation works (in the Recipient's offices to accommodate additional personnel) to be financed under the PPF.

25. The capacity for environmental management is weak in Haiti, particularly for supervision during construction. The reason for this is often weak technical knowledge and logistics. The Project will recruit an environmental specialist to supervise the activities financed by the Project, but also to build capacity within UTE which already have a Social and Environmental Unit. The proposed Project in that sense will strengthen that existing Unit. TORs for this profile have been prepared so that the recruitment can be processed, and the specialist can be on board prior to implementation.

26. *Natural Habitats (OP/BP 4.04)*. This policy is triggered as a precaution because there are several works in the watershed area, and many of them (related to roads, bridges) cross small streams that may be important aquatic habitat areas.

27. In terms of beneficial social development impacts, the proposed Project is expected to

provide better access to all-weather roads, better access to services and markets, better social conditions for vendors and customers in markets through improved accessibility, provision of sanitary facilities, child care facilities, and sanitation of areas with live and dead animals, all of which will contribute to improving living conditions and foster economic activity. Also, some investments considered will respond to effective demand from beneficiaries.

28. *Involuntary Resettlement Policy (OP/BP 4.12)* is triggered as the road rehabilitation and upgrading of urban and rural markets are likely to result in limited temporary or permanent involuntary resettlement. A Resettlement Policy Framework (RPF) will be prepared in accordance with the Policy to ensure application of the appropriate safeguard policies and will include reference to the principles of OP 4.12 in terms of, *inter alia*, eligibility for compensation, asset valuation methodologies, and consultation and participation. Resettlement Action Plans (RAPs) will be prepared in accordance with the principles outlined in the RPF for each of the activities that result in resettlement.

29. UTE has sufficient experience with planning and undertaking resettlement activities to be able to implement the requirements of OP 4.12 on Involuntary Resettlement. Current social and environmental experts have been trained on resettlement and will continue to benefit from specific capacity building activities within the project and planned intensive training. To address capacity constraints, one additional social resettlement expert will be recruited before Effectiveness with PPF funding for the coordination and development and implementation of social analysis and resettlement instruments.

30. The preparation of safeguards instruments was deferred to the Project implementation period in accordance with the special facility provided under OP 10. A time-bound safeguards action plan was developed to address all environmental and social impacts and ensure the timely development of safeguard instruments (see Table 10).

31. A general environmental and social baseline, and the expected environmental and social impacts will be identified during Project preparation and the first three months of Project implementation through the development, consultation and disclosure of a Project Social Assessment (SA), an ESMF and a RPF. In these documents, the approach to be taken during implementation for screening, selecting, and designing sub-projects will be described. Detailed action plans for the preparation of sub-project safeguard instruments with guidance to mitigate negative impacts and comply with consultation and disclosure will be included. EMPs and RAPs for identified works will be developed, consulted and disclosed within six months after Effectiveness. EMPs and RAPs for not-yet identified works will be developed at the latest prior to commencement of the works in accordance with the policies.

Table 10: Development of Safeguard Instruments

Activities	Safeguard Documents	Preparation, Consultation and Disclosure Expected for	Comments
Overall Project Preparation	<ul style="list-style-type: none"> • ESMF • RPF • SA 	<ul style="list-style-type: none"> • Effectiveness for ESMF and RPF • Within 3 months after Effectiveness for the SA 	OP10.00 Para 11 invoked, allowing the preparation of safeguards instruments to be deferred to after Board Approval and to Project implementation. The frameworks will be prepared by Project Effectiveness. ToRs for ESMF and RPF were prepared by Appraisal. ToR for SA will be ready by Effectiveness.

Activities	Safeguard Documents	Preparation, Consultation and Disclosure Expected for	Comments
Component A. Enhancing logistics and transport connectivity and climate resilience			
<i>Identified works</i>			
Rehabilitation works on existing primary and secondary roads, with special focus on critical points that are vulnerable to climate change (e.g. bridges)	<ul style="list-style-type: none"> • EMP • RAP 	Within 6 months after Effectiveness, and prior to the commencement of works	If expanded drainage and widening are called for, this would be indicated in the ESMF, and a further assessment made regarding the environmental and social impact of this widening
<i>Non-identified works</i>			
Rehabilitation works on tertiary and rural road networks	EMPs and RAPs (if applicable) will be developed for each road segment and each type of structure (bridges, markets, bus stations, etc.) when the precise sites and types of activities are identified	Prior to the commencement of works	The ESMF will include a screening tool to screen out category A investments Demand-driven
Component B. Improving infrastructure and management capacity of markets			
<i>Non-identified works</i>			
Urban and rural markets	<ul style="list-style-type: none"> • An EMP would be required if any major construction (e.g., renovation of buildings) • RAP 	Prior to the commencement of works	The ESMF will include a screening tool to screen out category A investments Demand-driven
Component C. Supporting the development of regional knowledge, planning capacity, and local participation			
No works	No safeguards		
Component E. Project Management and Monitoring			
No works	No safeguards		

32. **Risk rating.** UTE (as well as UCE) have been assessed with the capacity to handle the nature and scale of investments considered under the proposed Project. Overall, the Project Risk for Environmental and Social Safeguards is Moderate.

Monitoring & Evaluation (M&E)

33. Joint supervision missions by the GoH and the Bank, with participation of UTE, will monitor the status of Project outcomes and legal covenant compliance. In addition, a M&E system will be put in place for different activities of the Project to ensure that data are regularly generated and tracked. The setup and operation of such system will be responsibility of UTE with support from the Bank. Key results indicators, including changes in income and indicators of infrastructure serviceability, will be tracked through independent data quality control or collection. Additionally, this system will include a beneficiary assessment to be undertaken as a satisfaction survey at the end of the Project. Financing will be made available under Component E for capacity building in M&E for UTE, and for other partners if deemed necessary. Finally, M&E data will include PPCR-related data, and the set up and operation of the system by UTE will be done efficiently in coordination with CIAT-es, building on what has been initiated or achieved in the framework of SPCR. The proposed Project will benefit from additional allocation of funding from the CIF to support the monitoring activity on PPCR specific results framework.

Annex 4: Operational Risk Assessment Framework (ORAF)
HAITI: Center and Artibonite Regional Development Project

1. Project Stakeholder Risks						
1.1. Stakeholder Risk	Rating	High				
Donor relations: Lack of coordination or diverging views among the donors active in the Center Artibonite Loop, and in the transport, infrastructure, governance, agriculture, DRM and climate change sectors (specifically the Bank, EU, IDB, USAID), between donors and the GoH, and amongst beneficiaries could result in duplication of efforts and undermine Project implementation.	Risk Management: The Bank would continue to engage in active dialogue during Project preparation and implementation with major donors, including the EU, IDB, USAID, in the transport, infrastructure, public sector governance, agriculture, DRM and climate change sectors. At the outset of Project preparation, the Bank worked with CIAT-es to host a workshop outlining all activities currently on going or planned in the CAL region. This served as the launching point for close collaboration which would continue throughout Project preparation and implementation. The Project would in fact specifically help develop a framework that all donors and stakeholders in general could follow. This would give and strengthen a vision for the development of the CAL, led by the GoH nationally and locally.					
	Resp:	Status:	Stage:	Recurrent:	Due Date:	Frequency:
	Bank, UTE	In progress	All	<input checked="" type="checkbox"/>		Continuous
Given the Project’s ambitious aim of comprehensively including multiple sectors in the Project’s design, certain groups i.e. beneficiaries and local stakeholders may potentially be dissatisfied with the Project activities and/or feel negatively affected by, or not adequately consulted, in the Project’s financing scope.	Risk Management: Elements to be financed under the proposed Project would be selected in consultation with key stakeholders (down to the community level in some cases), so as to ensure local ownership and support of select works. Prior technical reviews of proposed activities would be undertaken to ensure that Project components would not have adverse impact on local residents. During implementation, the PIU would disseminate relevant information (in addition to Social and Environmental Assessments) to citizens to further increase awareness of the proposed Project and activities.					
	Resp:	Status:	Stage:	Recurrent:	Due Date:	Frequency:
	Bank, UTE	In progress	All	<input checked="" type="checkbox"/>		Continuous
2. Implementing Agency Risks (including fiduciary)						
2.1. Capacity	Rating	Substantial				
Capacity of Implementing Agencies: The risk related to the capacity of UTE to implement additional activities is marginal. UTE is already implementing other IDB and GoH projects. The additional workload brought by the proposed Project may overwhelm its capacity to effectively implement the Project. Regarding the capacity of CIAT and UCE to manage the technical responsibilities under the proposed Project, they also may be weakened by the additional workload.	Risk Management: The Bank would work closely with UTE to provide the requisite support during preparation, implementation and supervision. Component E would finance institutional support and capacity development for project management and implementation, including training, staffing, and capacity development activities associated with project execution. Resources would be made available to hire additional environmental and social specialists, procurement specialist(s) and technical staff to support the implementation of all components. Furthermore, technical assistance and financial support would be provided to CIAT-es and UCE to bolster their staffing and capacity to provide technical support to the Project. Additionally, the institutional arrangements between UTE and UCE (agreed on and described in the Operations Manual) would provide implementation support in areas where UTE may not have technical experience (i.e.: high technical competence in the infrastructure sector).					
	Resp:	Status:	Stage:	Recurrent:	Due Date:	Frequency:
	UTE	Not yet due	Implem.			

<p>Effective Procurement Implementation:</p> <p>Additional workload could endanger the capacity to effectively implement procurement.</p>	<p>Risk Management:</p> <p>Procurement activities would be carried out by MEF-UTE, which was rated as satisfactory during the implementing agency assessment, and has a strong track record with other donor-financed projects. Bank supervision in this area would still be thorough, and additional training and staff would be financed for UTE.</p> <table border="1" data-bbox="735 240 1948 326"> <thead> <tr> <th>Resp:</th> <th>Status:</th> <th>Stage:</th> <th>Recurrent:</th> <th>Due Date:</th> <th>Frequency:</th> </tr> </thead> <tbody> <tr> <td>UTE</td> <td>Not yet due</td> <td>Implem.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>						Resp:	Status:	Stage:	Recurrent:	Due Date:	Frequency:	UTE	Not yet due	Implem.			
Resp:	Status:	Stage:	Recurrent:	Due Date:	Frequency:													
UTE	Not yet due	Implem.																
<p>Effective FM Implementation:</p> <p>No specific FM weaknesses have been encountered that would add risk.</p>	<p>Risk Management:</p> <p>Regarding FM, an assessment of UTE's capacity has been undertaken and the FM arrangements in place have been considered satisfactory provided minor adjustments and specific training on Bank procedures. These will be completed before implementation starts.</p> <table border="1" data-bbox="735 462 1948 548"> <thead> <tr> <th>Resp:</th> <th>Status:</th> <th>Stage:</th> <th>Recurrent:</th> <th>Due Date:</th> <th>Frequency:</th> </tr> </thead> <tbody> <tr> <td>UTE</td> <td>Not yet due</td> <td>Implem.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>						Resp:	Status:	Stage:	Recurrent:	Due Date:	Frequency:	UTE	Not yet due	Implem.			
Resp:	Status:	Stage:	Recurrent:	Due Date:	Frequency:													
UTE	Not yet due	Implem.																
<p>2.2. Governance</p>	<p>Rating</p>	<p>Substantial</p>																
<p>Implementing Agency Coordination:</p> <p>Lack of coordination among UTE, UCE, and CIAT-es could result in no agency assuming ownership over the Project which could hamper decision-making and accountability. These in turn could pose a challenge to the achievement of the PDOs.</p>	<p>Risk Management:</p> <p>UTE and UCE have developed a successful working relationship under other IDB projects. Financing has been allocated under other Bank-financed projects to build the project management capacity of UCE, and similar financing would be allocated under this proposed Project for UTE. The proposed Project is being developed in close consultation with both agencies and CIAT-es, and each would assume full ownership over their respective components, have a vested interest in achieving the PDOs, and have maintained a strong working relationship with each other and the Bank on previous projects. Upfront, the institutional arrangements would be described in the Operations Manual (to be ready and acceptable to the Bank by Effectiveness), clarifying roles and responsibilities, which would be the basis for coordination and designation of responsibilities.</p> <table border="1" data-bbox="735 873 1948 954"> <thead> <tr> <th>Resp:</th> <th>Status:</th> <th>Stage:</th> <th>Recurrent:</th> <th>Due Date:</th> <th>Frequency:</th> </tr> </thead> <tbody> <tr> <td>UTE, UCE, CIAT-es</td> <td>In progress</td> <td>All</td> <td><input checked="" type="checkbox"/></td> <td></td> <td>Continuous</td> </tr> </tbody> </table>						Resp:	Status:	Stage:	Recurrent:	Due Date:	Frequency:	UTE, UCE, CIAT-es	In progress	All	<input checked="" type="checkbox"/>		Continuous
Resp:	Status:	Stage:	Recurrent:	Due Date:	Frequency:													
UTE, UCE, CIAT-es	In progress	All	<input checked="" type="checkbox"/>		Continuous													
<p>3. Project Risks</p>																		
<p>3.1. Design</p>	<p>Rating</p>	<p>Substantial</p>																
<p>The Project is multi-sectoral and complex by nature, involving a variety of ministries, agencies and local actors. These stakeholders may not be accustomed to working cohesively and under one implementing agency which could create confusion and slow implementation.</p>	<p>Risk Management:</p> <p>The proposed Project has been designed with components clearly defined by beneficiary ministry/agency/local actors, so as to clarify activities and responsibilities and diminish complexities. The Project would work with UTE to develop appropriate implementation and oversight arrangements. The mechanisms developed under the proposed Project would encourage communication, coordination, participation and transparency. It would promote cohesion and harmonization across sectors at the national institutional level and the local administrative level. Additionally, UTE, as implementing agency, and UCE, CIAT-es and MARNDR, as technical support agencies, would enter in institutional arrangements that would be agreed on and captured in the Operations Manual (OM) to accurately outline roles and responsibilities (the OM would be ready by Effectiveness).</p> <table border="1" data-bbox="735 1317 1948 1398"> <thead> <tr> <th>Resp:</th> <th>Status:</th> <th>Stage:</th> <th>Recurrent:</th> <th>Due Date:</th> <th>Frequency:</th> </tr> </thead> <tbody> <tr> <td>UTE, UCE, CIAT-es, Bank</td> <td>In progress</td> <td>All</td> <td></td> <td></td> <td>Continuous</td> </tr> </tbody> </table>						Resp:	Status:	Stage:	Recurrent:	Due Date:	Frequency:	UTE, UCE, CIAT-es, Bank	In progress	All			Continuous
Resp:	Status:	Stage:	Recurrent:	Due Date:	Frequency:													
UTE, UCE, CIAT-es, Bank	In progress	All			Continuous													

Physical environmental data insufficient for design of climate resistant infrastructure	Risk Management: The proposed Project would work with other ongoing Bank-financed projects to continue to build national capacity for strengthening understanding of climate change adaptation needs through the lifetime of the Project. The proposed infrastructure works under the Project would retrofit existing infrastructure vulnerable to climate risks.					
	Resp: UTE, CIAT-es, Bank	Status: In progress	Stage: All	Recurrent:	Due Date:	Frequency: Continuous
3.2. Social and Environmental	Rating	Moderate				
<p>Limited Safeguards Implementation and Supervision Capacity</p> <p>Inadequate field supervision of the works in Components A, B, C and D.</p> <p>Involuntary Resettlement</p> <p>Social and Gender Inclusion</p>	Risk Management: UTE currently has an environmental safeguards coordinator based in Port au Prince and a social and environmental specialist based in Cap Haïtien. An additional social specialist (also competent regarding gender-sensitive issues) would be hired and shared with the Cultural Heritage Preservation and Tourism Sector Support Project to oversee implementation and supervision of the social aspects of the Project. Additionally, an Environmental and Social Management Framework (ESMF) would be prepared to provide environmental and social mitigation measures (prior to Effectiveness). A Capacity Building Plan would also be developed under the ESMF.					
	<p>A team(s) or firm(s) with solid environmental and social experience would be hired to supervise the works under this Project. The Project would also include the development of appropriate accountability mechanisms to ensure monthly reporting on environmental and social issues, and to flag any major issues as they arise.</p> <p>Involuntary Resettlement would be limited under the proposed Project, and ultimately dependent on the identification of the works during implementation. Caution is needed when upgrading market areas to ensure that market users do not suffer loss of incomes during this period to the extent possible. Special Considerations (paragraph 11) under OP 10.00 are being invoked for this Project, allowing deferring the preparation of safeguards instruments to the implementation phase. A RPF is currently under preparation though and will be completed by Effectiveness. The RPF will identify measures and options for limiting the number of users to be moved, however temporary. Options such as movement to other areas on the market grounds, busing to other nearby markets, etc., would be explored. This RPF will also outline principles and guidance on involuntary resettlement and the development of RAPs in line with Bank operational procedures, Haiti laws and the operating context. This is valid not only with the users but in general for the people potentially affected by the works (roads or markets).</p> <p>Limited participation of civil society in projects and lack of voice may lead to insufficient social and gender inclusion in Project benefits. The social analysis in the ESMF would specifically address issues of social and gender exclusion and provide recommendations to maximize inclusion.</p>					
	Resp: UTE, UCE, Bank	Status: Not yet due	Stage: Implem.	Recurrent:	Due Date:	Frequency:
3.3. Program and Donor	Rating	Moderate				
<p>Conflicting activities with donors: The Project seeks to create synergies and foster higher impact development across sectors. Thus, the success of the Project is contingent on the success of other activities carried out by donors. Donor failure to fulfill their roles would complicate and jeopardize the</p>	Risk Management: Measures would be taken to ensure that the Project team coordinates with the other donors and keeps everyone up to date on a regular basis. This is actually one objective of Component C.					

achievement of PDO.	Resp: Bank	Status: Not yet due	Stage: Implem.	Recurrent:	Due Date:	Frequency:
Other World Bank Project Risks: The proposed Project would build on past and ongoing Bank-financed projects and other development initiatives in the CAL region. The success of the Project is dependent on the success of other Bank projects in Haiti. Failure of other Bank projects would hamper the achievement of PDO.	Risk Management: The Project team would coordinate and communicate with other Bank Project teams on a regular basis, and would take appropriate steps in the event of failure.					
	Resp: Bank	Status: Not yet due	Stage: Implem.	Recurrent:	Due Date:	Frequency:
3.4. Delivery Monitoring and Sustainability	Rating	High				
Rehabilitated infrastructure and regional development planning activities may neither be delivered with the expected quality nor in time for the next hurricane season.	Risk Management: Infrastructure works would be selected based on heavy construction with national and municipal actors, and based on the principle of greatest loss avoidance. Close follow-up of implementation would be performed through more frequent Bank supervision missions to ensure Bank quality standards.					
	Resp: Bank, UTE, UCE, CIAT-es	Status: Not yet due	Stage: Implem.	Recurrent:	Due Date:	Frequency:
Sustainability Risk: The sustainability of the Project over the long term is jeopardized by the lack of support from the GoH and necessary M&E. This in turn could hinder the development of databases and tools for territorial knowledge and planning, and cut/reduce the funds necessary for the maintenance of infrastructure works in the CAL. Additionally, sustainability of Project results would be impacted by overall progress of the GoH's decentralization agenda, including the transfer of adequate resources to regional and local entities for maintenance and operations.	Risk Management: The development of databases and tools, simultaneously paired with the support to participatory and decision-making mechanisms and the launch of the regional agenda would be key, and the GoH has demonstrated a strong commitment to the success of the initiative by formalizing its working relationship through CIAT and its Executive Secretariat. With regard to the proposed infrastructure works in the CAL, the sustainability would depend on both financial resources to operate and maintain them, and the level of ownership of the infrastructure by the beneficiaries, most relevant at the local level. This level of ownership would result from the implementation processing and mechanisms. Contributions by the Government in support of the investments/agencies strengthened by the Project, and their continued financial commitment to the decentralization agenda would strongly influence sustainability. The development of a road maintenance strategy for the CAL, including technical, operation and maintenance, and management guidelines for rural roads and markets, and their dissemination and application, would contribute to sustainability. Finally, provisions will be made to provide M&E training and support under Component E.					
	Resp: Client, Bank	Status: Not yet due	Stage: Implem.	Recurrent:	Due Date:	Frequency:
3.5. Other: Force Majeure	Rating	High				
Due to its geographic location, Haiti is struck annually by hurricanes and other natural disasters.	Risk Management: Mitigation of this risk fall outside the scope of WBG action. However, WBG would continue to monitor developments and would adjust the program if necessary.					
	Resp: Bank, UTE	Status: In progress	Stage: All	Recurrent: <input checked="" type="checkbox"/>	Due Date:	Frequency: Continuous

Storm/hazard events during Project execution damage works and modify construction requirements.	Risk Management: The proposed Project would ensure that scheduling and prioritization of critical stages of works would be completed prior to the recurrent storm season. Works planning and execution contracts would also include risk management contingencies.					
	Resp: UTE, UCE, CIAT-es, Bank	Status: Not yet due	Stage: Implem.	Recurrent:	Due Date:	Frequency:
Storm/hazard events during Project implementation alter GoH priorities and redistribution of Project funding from vulnerability reduction and climate change adaptation activities to emergency recovery.	Risk Management: Component D of the proposed Project, in line with OP 10.00, allows the GoH to reallocate Bank financing for emergency recovery and reconstruction purposes, if necessary. Existing recovery and reconstruction projects ensure the integration of climate resilience and vulnerability reduction into civil works designs.					
	Resp: UTE, CIAT-es	Status: Not yet due	Stage: Implem.	Recurrent:	Due Date:	Frequency:
4. Overall Risk						
Implementation Risk Rating:		HIGH				
Comments: Overall, Implementation Risk is rated High. Though UTE has never served as an implementing agency for a Bank-financed project, it has extensive experience with large infrastructure projects for other donors, such as the IDB. However, the implementation risk remains High in light of the complexities of operating in Haiti as a FCS and general governance issues, the large scope of the proposed Project, its multi-sectoral design, fiduciary and safeguards capacity weaknesses, and due to the general technical capacity limitations in Haiti, such as in climate change adaptation.						

Annex 5: Implementation Support Plan

HAITI: Center and Artibonite Regional Development Project

Strategy and Approach for Implementation Support

1. The strategy for implementation support (IS) draws on the risk profile of the Project (ORAF, Annex 4) and aims to enhance the Client's quality delivery of the proposed interventions. The Task Team Leader (TTL) of the Project would be based in the Country Office. The team supporting the TTL, including the co-TTL and the specialists, would be mainly based at World Bank headquarters (WB HQ). Initially (at least until mid-term review), they will undertake supervision missions 3 to 4 times a year. The frequency of missions thereafter will be determined considering the development of the Project. Regular supervision by the Bank is conducted to follow up on Project component progress and provide tailored support to the Counterparts to effectively implement the Project. It will focus on the following areas:

(a) Strategic: IS missions will meet with UTE and the partner institutions to: (i) review Project activities, (ii) re-confirm strategic alignment of Project activities to the PDO; and (iii) ensure the necessary coordination amongst respective stakeholders.

(b) Technical: The IS team for the Project will consist of WB technical specialists who will review and supervise the execution of the Project components with partner institutions, ensure the activities keep in-line with the PDO, and make adjustments to the design and procurement plan when necessary. Ongoing support for M&E will continue to strengthen UTE's and the Bank's ability to both monitor Project progress and assess the impact of interventions.

(c) Safeguards: Bank environmental and social specialists (HQ-based) will support UTE in the preparation and consultation process associated with the safeguard instruments needed for the Project (ESMF, RPF, ESMPs, and RAPs when needed). This support will continue throughout Project implementation, in particular to ensure the application and effectiveness of those instruments. These specialists will: (i) develop UTE's knowledge and understanding of Bank safeguard instruments and further familiarize UTE with those; (ii) ensure UTE has the capacity to undertake environmental and social analyses and develop mitigation approaches; and (iii) ensure regular and close supervision of progress and implementation of the plans.

(d) Procurement and Fiduciary: The Bank's HQ and field-based financial management (FM) and procurement specialists will provide timely, targeted training to UTE and possibly other executing institutions through periodic supervision missions during Project implementation. These specialists will: (i) develop UTE's knowledge and understanding of Bank rules and procedures and further familiarize UTE with those; (ii) introduce UTE staff to Bank Procurement Guidelines and prepare UTE to use those; (iii) ensure UTE has the capacity to manage the flow of funds and accounting procedures, in line with FM guidelines; and (iv) support UTE in building its overall FM and procurement capacity to improve and facilitate project management (in the context of this Project, and in general). Supervision of the Project's FM arrangements will be conducted semi-annually and, as needed, in response to Client's needs. Procurement supervision will also be carried out semi-annually, preferably jointly with (two of) the regularly-scheduled Bank supervision missions. The support will focus primarily on contract management and on improving proficiency and efficiency in implementation according to Bank guidelines.

(e) Client-relations: The TTL and/or the co-TTL will: (i) coordinate Bank supervision to ensure consistent Project implementation, as specified in the legal documents (i.e. Financing Agreements, Operations Manual); and (ii) meet regularly with the Client and UTE to gauge Project progress in achieving the PDO and address implementation roadblocks as they may arise.

Implementation Support Plan and Project Partners

Table 11: Skills Mix Required

<i>Skills needed</i>	<i># Staff Weeks per Fiscal Year</i>	<i># Trips per year</i>	<i>Comments</i>
Task Team Leader (Supervision) Senior Infrastructure Specialist *	8	N/A	Country-based
Co-TTL (Supervision) Urban Development Specialist *	8	4	HQ-based. (Depending on Project development, # of staff weeks and trips can be adjusted throughout implementation).
Procurement Specialist	4	2	HQ-based and Country-based
Financial Management Specialist	4	2	HQ-based and Country-based
Rural Development Specialist	3	2	HQ-based
Agriculture Specialist	3	N/A	Country-based
Climate Adaptation Specialist	4	2	HQ-based
Environmental Specialist	3	2	HQ-based
Social Specialist**	3	2	HQ-based
Monitoring/Evaluation Specialist	1	1	HQ-based
Operations Officer	3	1	HQ-based
TOTAL	44	18	

* Skills needed in the team (to be carried through the same or other arrangements in case there is a change of TTL throughout Project implementation)

** The Team will also have incremental support from HQ-based and Country-based Gender Specialists throughout Project implementation, in addition to this IS plan.

Table 12: Project Partners

<i>Name</i>	<i>Institution/Country</i>	<i>Role</i>
Client	MEF	Project Counterpart, overall responsible for Project implementation, in compliance with agreements spelled out in Financing Agreement coordinating the GoH's support for the Project.
PIU	UTE (MEF)	Responsible for Project execution
Key Government Project Partner institution	CIAT and its Executive Secretariat	Strategic and oversight role, responsible for coordinating line Ministries and more generally GoH's support for the Project; asp responsible for communicating and disseminating information on the development of the CAL region.
Project Partner institutions (Governmental)	MTPTC, MARNDR, FER	MTPTC: technical support to UTE and CIAT-es, and responsible for the technical quality of supervision and outputs of specific activities related to the structuring road network and its maintenance (Subcomponents A.1 and A.3). MARND: consulted by UTE and CIAT-es to contribute to the selection of rural roads and markets, the elaboration of guidelines and supporting documents. FER: used as a funding mechanism to finance road maintenance costs (routine maintenance works), in addition to Project funding
Local Institutions and Authorities	Local level representation of line-Ministries, local authorities at the municipal level	Local level representation of line Ministries: key actors in the coordination as well as participatory and decision-making mechanisms supported in the Project. Local Authorities: Mayors and CASECs: key actors in promoting and submitting subproject proposals, and key actors in the participatory and decision-making mechanisms supported in the Project.
Bank and other donors	IDB, UE, AFD	Ensure coordination so that financed programs complement one another in terms of sectors of intervention, geographic areas of intervention, time of intervention, etc. to leverage development impacts.
Associations and Private sector partners	Various, including Private Sector Economic Forum, Chambers of Commerce, Associations and industries, Associations of Producers, Women Associations, etc.	Beyond consultation, play a key role in the sustainability of the Project by perpetuating Project activities through investments, taking ownership of the investment, and conveying the local demand and requiring that local needs be addressed and taken into account.

Annex 6: Project Economic and Financial Analysis

HAITI: Center and Artibonite Regional Development Project

Presentation of the economic and financial analysis

1. For the sake of quantifying economic and financial benefits, only the main road network investments envisaged under Subcomponent A.1 have been taken into consideration. These structuring investments have a cost of US\$21 million (including roads and bridges) representing about 50 percent of total project investments costs. They consist in a major improvement of the “structuring” road network with a focus on all-weather access and resilience to climate change. These investments concern four stretches of roads totaling 105 km and climate adaptation measures for a major bridge on the primary road network.

2. The other physical investments either: (i) are not yet identified precisely; or (ii) are yet to be identified. Under (i) is the case of the four large market facilities for a total amount of US\$5 million under Subcomponent B.1. The location of these facilities is agreed in principle but each of them is a specific case, with the extent and scope of work yet to be defined precisely. Under (ii) are the feeder roads and rural pathways under Subcomponent A.2 (US\$4.9 million) and small rural market facilities under Subcomponent B.2 (US\$5 million). These facilities will be selected following a participatory approach based on stakeholder demand, as Project implementation unfolds. The benefits accruing from these additional investments are likely to be substantive as market facilities and feeder roads and rural pathways would decrease transaction costs and losses and improve producers’ linkages to markets, thereby given them ready outlets and steady incomes for their production year round. Before a final decision is made regarding each of these investments, a detailed business plan and cost-benefit analysis would be required.

3. The benefits arising from non-physical investments under Component C (support to knowledge acquisition, capacity building and local participatory process for an amount of US\$6 million) are intangible and not readily amenable to quantification. They concern mainly training and upgrading of capacity of staff and institutions, for the main purpose of enhancing their ability to participate in decision-making at the local level. Evidence in Haiti and elsewhere and conventional wisdom indicate that these benefits are likely to be extremely high.

4. The results presented below, based only on the main road segments rehabilitated under the Project, are therefore conservative. They are likely to be greatly enhanced by the positive impact of other investments, as these latter are complementary to the main roads in terms of mobilizing the Artibonite and Center region economic potential and improving livelihoods.

Methodology

5. *The Roads Economic Decision Model* (RED) was used, as it was found to be more appropriate than other models, due to the low traffic characteristics of the selected roads.

6. *Vehicle operating costs (VOCs)*. The RED VOC module computes vehicle operating costs and speeds as a function of road roughness for terrain and road types (flat, rolling, mountainous, paved, graveled, earth) and motorized or non-motorized vehicle types, which are

selected among several possible vehicle types. The model supplies values that are automatically generated when the technical data is not available, such as for paved roads texture depth, number of rises and descents, speed limit enforcement, etc.

7. **Technical road improvement alternatives.** The technical assessment performed on the four selected roads has identified various improvement alternatives on the different sections of the two roads, with their associated estimated costs. Based on technical considerations as well as available budget, three options are taken into consideration (described in paragraph 11) in addition to the base scenario which corresponds to the “no investment scenario”.

8. **Traffic growth assumptions.** On the four roads, traffic generated during the first years following improvement works is expected to be very high. Indeed, the situation in the CAL region can be characterized by a heavily constrained demand for transport due the extremely deteriorated conditions of road infrastructure. Currently, most of the traffic is generated by trucks, pick-ups and buses that people use to access markets in order to sell or buy goods. It typically takes several hours for these vehicles to go one way, allowing only one rotation per day. If, for example, travel time is halved, which is realistic if roads are improved, traffic could easily double in the very short term at the current level of transport services.

9. **Exogenous benefits.** The improvement of the four stretches of roads will generate benefits that go beyond the reduction of vehicle operating costs. The isolation of the Center and Artibonite rural population due to the poor transport conditions translates into reduced access to social services, limited provision of key inputs to develop productive activities, and high transit and transportation. The improvement of transport conditions is expected to generate two main positive effects regarding agricultural farming systems: (i) an increase of the volume of sales as a result of avoided loss of production during the rainy seasons –that can be commercialized- and of marginally increased productivity, due to improved access to key inputs such as fertilizers; and (ii) an increase of net profits earned by local producers and traders as a result of decreased transit losses for associated crops.

10. The exogenous benefits are difficult to estimate precisely given the unreliable database in Haiti. The 2013 Center and Artibonite report produced by the EU evaluates agro-economic benefits of road construction at an average rate of US\$20/year/inhabitant through the increase in agricultural production, valorization of unused land or reduction in losses, these exogenous benefits have not been included in the calculations, which is a conservative approach as the roads will benefit not only the rural areas but also the population in urban centers as well as the service economy.

Scenarios tested, hypotheses and basic inputs

11. **Option 0: No investment.** This is the base scenario; **Option 1: Upgrade to all-weather standards:** This scenario has been tailored to the circumstances of the Center Artibonite region, such as a very developed hydrological network sensitive to climate change and natural events, and a very low access and practicability during the rainy season. The investment average cost per kilometer used for the analysis integrates the construction of all bridges and drainage systems necessary to ensure resiliency and all-weather practicability, with roads remaining unpaved;

Option 2: Upgrade to surface treatment standard. No modifications were made to the basic RED scenario with the exception of the financial investment cost per kilometer which integrates the construction of the bridges to the desired standard; **Option 3: Upgrade to asphalt concrete standard.** No particular modifications were made to the basic RED scenario but the financial investment cost per kilometer which integrates the construction of the bridges to the desired standard, and asphalt pavement.

12. **Investment and maintenance costs.** The financial investment and maintenance costs adopted are based on: (i) preliminary design studies performed by MTPTC and the EU outlined in EU 2013 PAIBA Report, and (ii) the team own calculation based on average costs in recent WB transport operations in Haiti.

13. **Traffic.** Traffic data were collected by MTPTC. This was done on an incremental basis. However, it should be noted, that the Ministry has no regular traffic studies so numbers have to be considered cautiously. Additionally, the level of traffic indicated by the MTPTC appears relatively low, compared to what the team has assessed during project preparation and associated field visits. Data have been adjusted upward as a general rule, although they have been lowered for the rainy season period reflecting the low practicability of the roads at that time of the year. A conservative approach has been considered for the growth of the traffic during the first 5 years at 6 percent/year during the dry season and a more aggressive rate of 10 percent during the rainy season to reflect the upgrade to all-weather practicability. Traffic growth for the 15 following years has been estimated at 3 percent/year rate which is also conservative. Total traffic growth for the period of evaluation has been estimated at an average 4 percent. Traffic induced by local development was considered in the analysis and set up at 10 percent of normal traffic. Corresponding benefits arise from linking isolated regions to the primary and secondary road network and larger economic regions. This is a conservative hypothesis given that usual benefits are substantial when such isolated regions are linked to the structuring network and leading economic regions.

14. **Other exogenous benefits.** This model does not take into account other exogenous benefits, in health and social services delivery particularly as a result of the road investments. These benefits are indeed difficult to assess given that current data for the region is unreliable.

Results

15. **NPV, IRR and financial investment costs.** For all the roads considered, the best NPV result is for Option 1: upgrade to all-weather practicability conditions. The average IRR for that option is 31 percent.

Table 13: NPV, IRR and Financial Investment Costs

	Dessalines – St. Michel	St. Michel – St. Raphaël	Hinche – Maissade	Titanyen – Saut D’Eau	Total
Net Present Value (million US\$) at 10% Discount Rate	0.374	0.219	-0.271	0.024	0.346
Rate of return	11%	11%	10%	10%	10%
Equivalent Annual Net Benefits (US\$/km) at 10% Discount Rate	1,000	1,019	-1,610	150	140

Modified Rate of Return at 10% Reinvestment Rate (%)	10%	10%	10%	9%	10%
Financial Investment Costs (million US\$)	8.00	4.60	4.05	2.64	19.29
Length (km)	40	23	18	24	105
Estimated Travel time saving (min)	31	20	25	20	

16. **Sensitivity analysis.** The sensitivity has been tested using RED risk model with the following results.

Table 14: Sensitivity Analysis (NPV, IRR)

	Dessalines – St. Michel	St. Michel – St. Raphaël	Hinche – Maissade	Titanyen – Saut D’Eau	Total/ average
NPV (million US\$) at 10% Discount Rate	0.374	0.219	-0.271	0.024	0.346
Average	-0.148	-0.033	-0.586	-0.165	-0.932
Minimum	-2.84	-1.353	-2.096	-1.321	-7.610
Maximum	2.796	1.424	1.210	1.009	6.439
Internal Rate of Return (%)	11%	10%	10%	10%	10%
Average	10%	10%	8%	8%	9%
Minimum	2%	4%	0%	-5%	0%
Maximum	18%	17%	15%	21%	18%

17. The sensitivity of the results to increases and decreases in investment costs and traffic variation reinforces the choice of the proposed Option 1 as the IRR rises above 18 percent in the best case scenario and is 0 percent in the worst case scenario, with attendant significant NPV computed at a 10 percent discount rate, of US\$+6.5 million and US\$-7.6 million respectively.

18. The RED Model was also used to quantify benefits for one of the possible climate adaptation measure envisioned, namely the rehabilitation and improved hydraulic and river bank protection of the Artibonite River bridge, estimated at US\$1.6 million. The RED model was used to simulate additional VOCs and transit time in the event of bridge failure, and given its importance as the only alternate road from PaP to Hinche. Construction of a new bridge would require a two year construction period, and would cost an estimated US\$8.0 million investment. With the increasing frequency and intensity of extreme weather events and associated changes (significant in scale) in the hydraulic regime of the main rivers in the CAL region, the event of bridge failure is highly likely to occur if there is no higher adaptation measure standard taken (more than 10 bridges collapsed over the last 5 years in Haiti due to a lack of protection measures for riverbanks, and/or the fact that initial design standards, though adequate at the time of construction, are no longer adapted to the current conditions found in hydraulic river regimes).

19. The analysis of the impact of the Artibonite River bridge failure demonstrates an increase in VOC of approximately US\$37.1 million for the two years needed for the reconstruction, and an increase in time transit of four hours (US\$5.9 million loss) as the only available alternate route between PaP and Hinche is 120 km longer with 60 km unpaved section furthermore in poor condition in a mountainous area. Given the US\$8.0 million needed for the reconstruction of a new bridge, the overall cost of not protecting the bridge to a likely event would be approximately US\$51.0 million compared to the US\$1.6 million needed for protecting the bridge.

Annex 7: Haiti’s Pilot Program for Climate Resilience (PPCR)
HAITI: Center and Artibonite Regional Development Project

Box 2: Climate Change Adaptation and Disaster Risk Management in Haiti

Haiti has undertaken a number of initiatives over the last dozen years to respond to the threats posed by adverse natural events and climate change and variability. The National Disaster Risk Management (DRM) System was established in 2001 to handle emergency operations and manage disaster risk. The National Action Plan of Adaptation was developed in 2006, identifying the country’s main vulnerabilities to climate change and its adaptation needs. A large “adaptation deficit” was identified: Haiti’s capacity to cope with current climatic impacts is weak and will be further reduced in the future if risk reduction and climate-proofing measures are not adopted in structuring investments and key economic sectors. Since 2005, the Bank has supported the Government in its effort to (i) improve disaster preparedness, by strengthening the network of municipal Civil Protection Committees and enhancing disaster response capacities of Emergency Operation Centers; and (ii) undertake long-term DRM plans.

Furthermore, as part of the Climate Investment Funds’ (CIF) Pilot Program for Climate Resilience (PPCR), a US\$25.0 million Strategic Program for Climate Resilience (SPCR) was developed by the GoH through CIAT-es (designated as the focal point for the national PPCR) with support from the Bank and the IDB, to respond to the assertion that climate change is not exclusively an environmental problem, but an inherent challenge to Haiti’s sustainable development. The SPCR was endorsed in May 2013 and the proposed Project will receive a US\$8.0 million PPCR grant in co-financing to finance the climate-proofing of infrastructure in the CAL, corresponding to one of the four priority SPCR Investment projects.

1. ***Climate-proofing of infrastructures in the Center Artibonite Loop region (CAL), as one of the four PPCR Investment projects.*** The Climate Investment Funds (CIF) are made up of two funds, one of them being the Strategic Climate Fund (SCF), supporting three “targeted programs” to help developing countries pilot low-emissions and climate-resilient development strategies. The Pilot Program for Climate Resilience (PPCR) is a targeted program of the SCF: it is an adaptation program for IDA countries (in priority) funding technical assistance and investments to support countries’ efforts to integrate climate risk and resilience into core development plans. It provides incentives for scaled-up action and initiates a transformational shift from “business as usual” to broad-based strategies for achieving climate resilience at the country level. Under this framework, the PPCR Sub-Committee endorsed Haiti’s Strategic Program for Climate Resilience (SPCR) in May 2013. The cross-cutting nature of SPCR interventions and activities are captured through the following four priority Investment projects for Haiti: (#1) climate-proofing of infrastructures in the CAL; (#2) climate-proofing of agriculture in the CAL; (#3) climate change adaptation in the coastal cities of the gulf of La Gonâve; and (#4) strengthening knowledge management of hydro-meteorological, water resources, and climate data to inform decision making and policy dialogue. The grant is US\$25 million in total, with US\$8 million dedicated to Investment project #1.

2. The CAL region will be increasingly exposed to the effects of extreme weather events (cyclones and storms, alteration and unpredictability of rainfall patterns, etc.), the frequency and intensity of which will grow as a result of climate change. The region needs to reduce its vulnerability by enhancing the resilience of investments and adopting climate adaption measures. Protecting infrastructure investments and applying a climate-resilient development plan are both key to “sustainable (re)construction” in that region. To that end, Haiti’s PPCR Investment project #1 aims to promote the climate resilience of infrastructures in the CAL region and to foster the sustainability of the investments planned under the proposed Project. Its specific objectives are:

(i) Enhancing climate resilience in the strategic network of secondary rural road; (ii) Improving climate resilience in the structural network (targeting critical points); (iii) Climate-proofing investments in “poles of economic growth”; and (iv) Creating an enabling environment for sustainability of investments.

3. There has been a lack of substantial climate information to help planners anticipate future climate events, even though several extreme events have been recorded in Haiti. The difficulty in downscaling and modeling climate scenarios at the regional level adds to the uncertainty of future climate-change impacts over current infrastructure investments. Organizing and sequencing the investments considered under the regional development vision of the CAL will require planners, decision-makers and executing partners be well informed with climate vulnerability data so that climate change adaptation options can be identified, weighted, prioritized and budgeted. Soft investments, such as the generation of climate information and the development of policy and implementation tools, will be critical for climate-proofing investments in infrastructure and economic growth in the CAL. These soft investments will be facilitated by the PPCR largely, so that hard investments in the CAL (implemented with Bank’s or other stakeholders’ support) are sustainable and long-lasting.



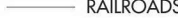


4. ***PPCR Core Indicators and their link to the proposed Project indicators.*** Among the list of five Core Indicators proposed by the PPCR in July 2013, three of them were suggested in the SPCR for the Investment project #1 (endorsed in May 2013). Under the proposed Project and associated Results Framework (RF), those PPCR Core indicators will be informed as follows:

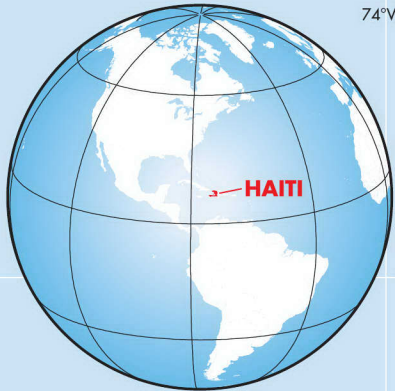
Table 15: PPCR Core Indicators Informed by the Indicators Proposed for the Project

PPCR Core Indicator	Suggested in SPCR for investment project #1	Proposed Project indicator
1. Degree of Integration of climate change in national, including sector, planning	No But Yes for Investment project #4	This indicator would be informed by the intermediate result indicators: #14: Regional development dashboard with open data including spatial analysis encompassing risk and climate data; #15: Cumulated amount in projects elaborated using analytical knowledge and tools developed by the proposed Project.
2. Evidence of strengthened government capacity and coordination mechanism to mainstream climate resilience	No But Yes for Investment project #4	This indicator would be informed by the intermediate result indicators: #13: Local officials and local stakeholders trained in the use of urban and territorial planning tools; #14: same as above; #15: same as above.
3. Quality and extent to which climate responsive instruments/investments models are developed and tested	Yes	This indicator would be informed by the intermediate result indicator #15: Cumulated amount in projects elaborated using analytical knowledge and tools developed by the proposed Project.
4. 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	Yes	This indicator would be informed by the following result indicators: #2 (PDO level): Share of roads classified as vulnerable to natural events and climate change impacts; #4: Number of officials and technical staff in climate resilience measures, best practices and standards; #8: Increase in the number of producers, retailers and traders with access to improved markets.
5. Number of people supported by the PPCR to cope with the effects of climate change PPCR	Yes	This indicator would be informed by the following intermediate result indicators: #1 (PDO level): Share of rural population with access to an all-weather road (disaggregated by gender); #4 (PDO level): Direct Project beneficiaries (disaggregated by gender); #8: same as above.

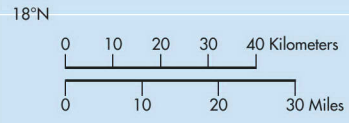
5. CIAT-es as the focal point for SPCR will develop its specific SPCR Results Framework. To populate it, CIAT-es will collect the relevant data from the proposed Project RF.

HAITI

- SELECTED CITIES AND TOWNS
- ⊙ DEPARTMENT CAPITALS
- ⊛ NATIONAL CAPITAL
-  RIVERS
-  MAIN ROADS
-  RAILROADS
-  DEPARTMENT BOUNDARIES
-  INTERNATIONAL BOUNDARIES



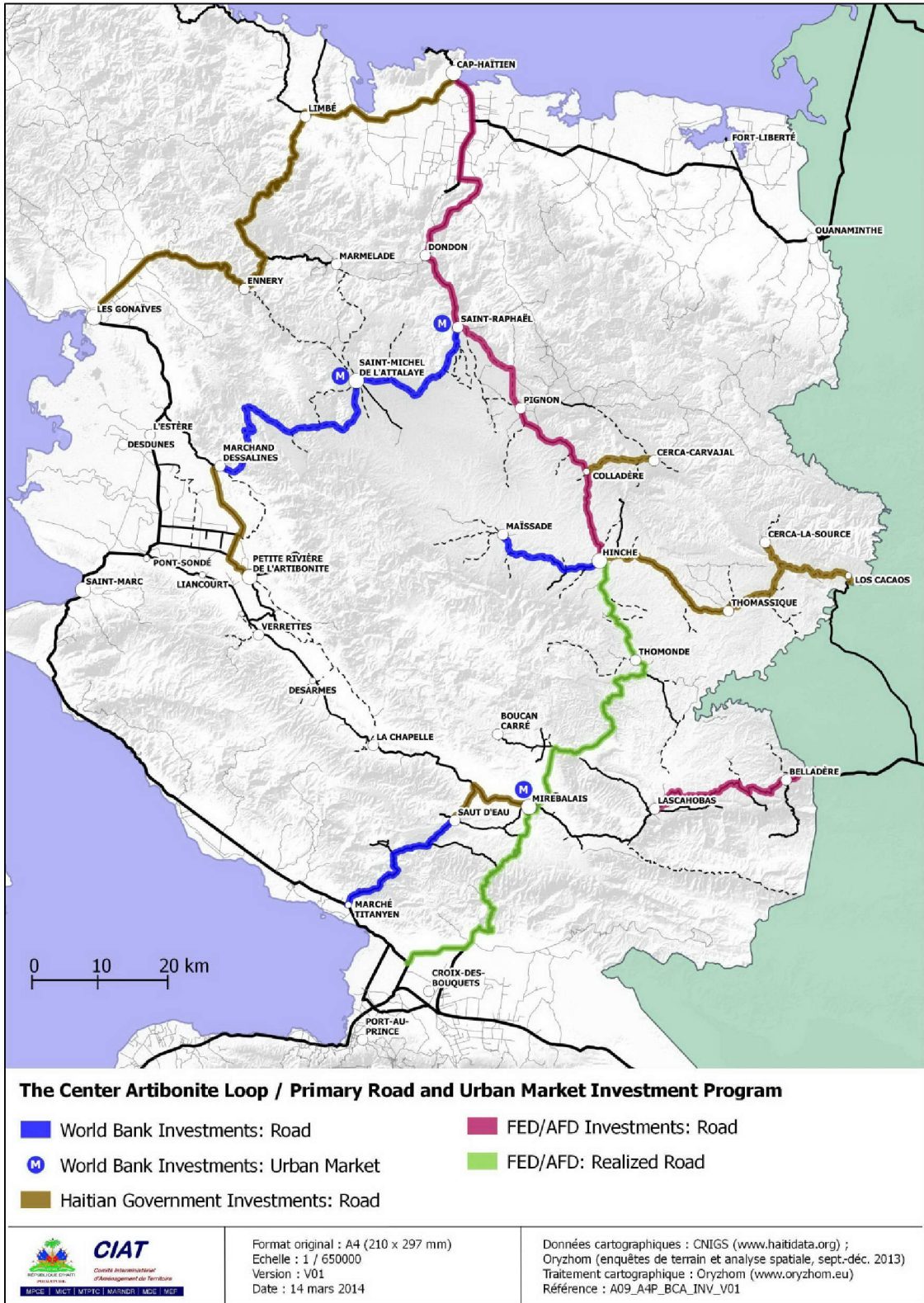
This map was produced by the Map Design Unit of The World Bank. The boundaries, colors, denominations and any other information shown on this map do not imply, on the part of The World Bank Group, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries.



JANUARY 2006

IBRD 33417R

Map 2: Road and Market Intervention Areas



More maps can be found online at http://ciat.gouv.ht/download/cat.php?val=7_haiti+demain# where the *Haiti Tomorrow* reports are published.

Map 3: Agriculture Potential in the CAL Region

