

Document of
The World Bank

Report No: ICR00002483

IMPLEMENTATION COMPLETION AND RESULTS REPORT
(IDA-H4320)

ON A

GRANT

IN THE AMOUNT OF SDR 12.8 MILLION
(US\$20.0 MILLION EQUIVALENT)

TO THE

REPUBLIC OF HAITI

FOR A

EMERGENCY BRIDGE RECONSTRUCTION AND VULNERABILITY
REDUCTION PROJECT

November 30, 2015

Transport & ICT
Haiti Country Unit
LATIN AMERICA AND CARIBBEAN

CURRENCY EQUIVALENTS

(Exchange Rate Effective November 30, 2015)

Currency Unit = Haitian Gourde
 HTG 1.00 = US\$0.01808
 US\$1.00 = HTG 55.3044

FISCAL YEAR
 October 1 – September 30

ABBREVIATIONS AND ACRONYMS

AFD	French Development Agency (<i>Agence Française de Développement</i>)
BMPAD	Bureau of Monetization of Development Aid Programs (<i>Bureau de Monétisations et Programmes d'Aide au Développement</i>)
CARDP	Center and Artibonite Regional Development Project (P133352)
CIAT	Inter-Ministerial Committee for Territorial Development (<i>Comité Interministériel d'Aménagement du Territoire</i>)
CRV	Vulnerability Reduction Unit (<i>Cellule de Réduction de la Vulnérabilité</i>)
DCRU	Disaster Recovery and Coordination Unit
DPC	Directorate of Civil Protection (<i>Direction de la Protection Civile</i>)
DRM	Disaster Risk Management (<i>Gestion des Risques de Désastres</i>)
DRMRP	Disaster Risk Management and Reconstruction Project (P126346)
ERDMP	Emergency Recovery and Disaster Management Project (P090159)
FER	Road Maintenance Fund (<i>Fond d'Entretien Routier</i>)
FGHI	Tropical Storms Fay, Gustav, Hannah, and Hurricane Ike
GoH	Government of Haiti
IaDB	Inter-American Development Bank
IDA	International Development Association
IP	Implementation Progress
ISR	Implementation Status and Results Report
M&E	Monitoring and Evaluation
MICT	Ministry of the Interior and Collective Territories (<i>Ministère de L'Intérieur et des Collectivités Territoriales</i>)
MIS	Management Information System
MPCE	Ministry of Planning and External Cooperation (<i>Ministère de Planification et Coopération Externe</i>)
MTPTC	Ministry of Public Works, Transportation, and Communication (<i>Ministère de Travaux Publics, Transport, Énergie et Communications</i>)
MTR	Mid-term Review
NDRMS	National Disaster Risk Management System (<i>Système National de Gestion des Risques et des Désastres</i>)
NGO	Non-Governmental Organization
PCU	Project Coordination Unit (<i>Unité de Coordination de Projet</i>)
PIU	Project Implementation Unit
PDNA	Post-Disaster Needs Assessment
PDO	Project Development Objective
PPR	Risk Management Plans (<i>Plans de Prévention des Risques</i>)

PROReV	Emergency Bridge Reconstruction and Vulnerability Reduction Project (<i>Projet de Reconstruction D'Urgence Des Ouvrages D'Art et de Réduction de la Vulnérabilité</i>)
PRUII	Infrastructure and Institutions Emergency Recovery Project (P120895)
PTDT	Transport and Territorial Development Project (P095523)
RAI	Rural Access Index
SPGRD	Permanent Secretariat of Disaster Risk Management (Secretariat permanent de Gestion des Risques et des Desastres)
UCE	Central Execution Unit (<i>Unité Central d'Exécution</i>) (PCU of MTPTC)
UCP	Project Coordination Unit (<i>Unité Coordination de Projet</i>) (PCU of MEF at BMPAD)
UTSI	Statistics and Data Processing Technical Unit (<i>Unité Technique de Statistiques et d'Informatique</i>)

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HAITI
Emergency Bridge Reconstruction and Vulnerability Reduction Project

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Haiti				
Emergency Bridge Reconstruction and Vulnerability Reduction Project (P114292)				
LATIN AMERICA AND CARIBBEAN				
GTIDR				
A. Basic Information				
Country:	Haiti	Project Name:	HT Emergency Bridge Reconst & Vulnerab Reduction Project	
Project ID:	P114292	L/C/TF Number(s):	IDA-H4320	
ICR Date:	11/30/2015	ICR Type:	Core ICR	
Lending Instrument:	ERL	Borrower:	MINISTRY OF ECONOMY AND FINANCE	
Original Total Commitment:	XDR 12.80M	Disbursed Amount:	XDR 12.77M	
Revised Amount:	XDR 12.80M			
Environmental Category: B				
Implementing Agencies: Unite Centrale d'Execution BMPAD UCE Unite Centrale d'Execution CIAT				
Cofinanciers and Other External Partners:				
B. Key Dates				
Process	Date	Process	Original Date	Revised / Actual Date(s)
Concept Review:	10/14/2008	Effectiveness:	03/31/2009	03/31/2009
Appraisal:		Restructuring(s):		03/21/2011 05/30/2013 10/10/2014
Approval:	11/18/2008	Mid-term Review:		
		Closing:	06/30/2013	05/31/2015
C. Ratings Summary				
C.1 Performance Rating by ICR				
Outcomes:		Moderately Satisfactory		

Risk to Development Outcome:	Substantial
Bank Performance:	Satisfactory
Borrower Performance:	Moderately Satisfactory

C.2 Detailed Ratings of Bank and Borrower Performance (by ICR)

Bank	Ratings	Borrower	Ratings
Quality at Entry:	Satisfactory	Government:	Satisfactory
Quality of Supervision:	Satisfactory	Implementing Agency/Agencies:	Moderately Satisfactory
Overall Bank Performance:	Satisfactory	Overall Borrower Performance:	Moderately Satisfactory

C.3 Quality at Entry and Implementation Performance Indicators

Implementation Performance	Indicators	QAG Assessments (if any)	Rating
Potential Problem Project at any time (Yes/No):	Yes	Quality at Entry (QEA):	None
Problem Project at any time (Yes/No):	Yes	Quality of Supervision (QSA):	None
DO rating before Closing/Inactive status:	Moderately Satisfactory		

D. Sector and Theme Codes

	Original	Actual
Sector Code (as % of total Bank financing)		
Public administration- Transportation	13	13
Public administration- Water, sanitation and flood protection	25	25
Rural and Inter-Urban Roads and Highways	62	62

Theme Code (as % of total Bank financing)		
Administrative and civil service reform	31	31
Natural disaster management	50	50
Participation and civic engagement	1	1
Rural services and infrastructure	18	18

E. Bank Staff

Positions	At ICR	At Approval
Vice President:	Jorge Familiar Calderon	Pamela Cox

Country Director:	Mary A. Barton-Dock	Yvonne M. Tsikata
Practice Manager/Manager:	Aurelio Menendez	Jose Luis Irigoyen
Project Team Leader:	Pierre Xavier Bonneau	Nicolas Peltier-Thiberge
ICR Team Leader:	Pierre Xavier Bonneau	
ICR Primary Author:	Malaika Becoulet	

F. Results Framework Analysis

Project Development Objectives (from Project Appraisal Document)

The project's development objective in the Financing Agreement is to (i) assist the Recipient in restoring access on selected critical points of its transport system following the FGHI Emergency, and (ii) reduce vulnerability to national disasters by strengthening its NDRMS.

The PDO in the PAD is to (i) restore access on selected critical points of the Haitian transportation system and (ii) support vulnerability reduction by strengthening the Haitian National Disaster Risk Management System.

The PDO used for this ICR evaluation is that in the Financing Agreement. The differences are editorial.

Note: The dates of the original and revised target values represent the date when they were approved (as part of the PAD or the restructuring paper). In all cases, the targets were expected to be met by the final closing date.

Revised Project Development Objectives (as approved by original approving authority)

(a) PDO Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1 :	Disaster Risk Management Units within key ministries are operational and sustainable, with adequate instruments/tools and staffing before the end of the project.			
Value quantitative or Qualitative)	No.	Yes.	2	2
Date achieved	11/18/2008	11/19/2008	05/30/2013	05/31/2015
Comments (incl. % achievement)	Revised 2013 Restructuring. Achieved. CIAT (an inter-ministerial committee of 6 ministries & MTPTC each established a DRM CRV unit, staffed and equipped with resources and tools. Both are presently operational & sustainable.			
Indicator 2 :	MTPTC bridge management unit is operational and sustainable, with adequate resources and staffing.			
Value quantitative or Qualitative)	No.	Yes		Yes.

Date achieved	11/18/2008	11/19/2008		05/31/2015
Comments (incl. % achievement)	Achieved. Bridge Management Unit is operational: 12 engineers trained and 2 unit staffed based at MTPTC. From April 2011 to present, the Unit has cataloged 3455 hydraulic crossings, including 174 bridges which have been evaluated for further maintenance.			
Indicator 3 :	MPCE vulnerability reduction unit is operational and sustainable.			
Value quantitative or Qualitative)	No.	Yes.	Dropped.	See Indicator #1
Date achieved	11/18/2008	11/19/2008	05/30/2013	05/31/2015
Comments (incl. % achievement)	Dropped Restructuring 2013: CRV in MPCE discontinued in Nov. 2011 due to changes in national institutional framework. CRV staff & responsibilities for integration of DRM in sectoral policies transferred to CIAT and is operational (see Ind. #3 & Table 1).			
Indicator 4 :	National Disaster Risk Management System (NDRMS) Policy and framework assessed and strengthened before the end of 2013.			
Value quantitative or Qualitative)	No.	Yes.	Dropped	See below.
Date achieved	11/18/2008	11/19/2008	05/30/2013	05/31/2015
Comments (incl. % achievement)	The original indicator "SPGRD unit reinforced, operational and sustainable" expanded to above (2011); then dropped (2013). NDRMS & SPGRD were reinforced & improved, but the 2010 earthquake emergency was not a conducive environment for policy reform.			
Indicator 5 :	Roads rehabilitated (km), non-rural roads			
Value quantitative or Qualitative)	No.	200		200
Date achieved	05/30/2013	05/31/2013		05/31/2015
Comments (incl. % achievement)	New Restructuring 2013. 100% achieved. This result was achieved by contracting local SMEs, thereby promoting the growth and development of small and medium civil work enterprises.			

(b) Intermediate Outcome Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1 :	Number of emergency fords and overpasses built in the two months following the emergency.			
Value (quantitative or Qualitative)	1	4	3	3
Date achieved	11/18/2008	11/19/2008	05/30/2013	05/31/2015
Comments (incl. % achievement)	100% achieved. Target reduced due to financing from other sources for bridge 4. By Dec 2008 three overpasses were operational on two major roads connecting the northern and southern parts of the country.			

Indicator 2 :	Number of bridges rebuilt with satisfactory technical standards.			
Value (quantitative or Qualitative)	0	2	1	1
Date achieved	11/18/2008	11/19/2008	05/30/2013	05/31/2015
Comments (incl. % achievement)	100% achieved. Cost overruns led to reduction in target from 2 to 1. But, engineering studies financed by PROReV were used by USAID and GOH to build the remaining bridge (Chalon) with Bank Financing under another project (DRMRP - P126346).			
Indicator 3 :	10 emergency bridges purchased			
Value (quantitative or Qualitative)	No.	Yes.		Yes.
Date achieved	05/30/2013	05/31/2013		05/31/2015
Comments (incl. % achievement)	100% Achieved. Staff of MTPTC were trained on the installation of emergency bridges. 7 of the 10 emergency bridges purchased were used during the project life to restore access on roads made inaccessible following adverse natural events incl TS Sandy			
Indicator 4 :	Number of bridges and road sections that have been repaired or consolidated with satisfactory technical standards			
Value (quantitative or Qualitative)	0	20	11	20
Date achieved	11/18/2008	11/19/2008	10/08/2014	05/31/2015
Comments (incl. % achievement)	154% Achieved. Initial target of 20 revised in 2011 Restructuring to 8(2013) then 11(2014) in light of the necessary cost reallocation at the time. Unexpected cost savings during project execution allowed for the increase in the # of spot interventions.			
Indicator 5 :	Number of community-based initiatives performing routine maintenance with satisfactory technical standards			
Value (quantitative or Qualitative)	0	20	Dropped.	20 (financed by GoH)
Date achieved	11/18/2008	11/19/2008	05/30/2013	05/31/2015
Comments (incl. % achievement)	Dropped Restructuring 2013. Sub-component linked to this indicator was dropped. Activity financed by GoH through FER.			
Indicator 6 :	Bridge inventory completed and up to date			
Value (quantitative or Qualitative)	No.	Yes.		Yes.
Date achieved	11/18/2008	11/19/2008		05/31/2015
Comments (incl. % achievement)	100% Achieved. Inventory of existing bridges complete and is up to date. From April 2011 to date, Bridge Management Unit at MTPTC conducted a first time inventory and cataloged 3455 hydraulic crossings incl. 174 bridges which have since been evaluated			
Indicator 7 :	Constitution of an effective crisis management and vulnerability reduction unit in MTPTC			

Value (quantitative or Qualitative)	No.	Yes.		Yes.
Date achieved	11/18/2008	11/19/2008		05/31/2015
Comments (incl. % achievement)	100% Achieved. Crisis Management and Vulnerability Reduction Unit (DRM unit) was established, staffed and equipped with trained engineers (see PDO Indicator #1). Operational manual (included M&E tools) was also developed. Unit was integrated into NDRMS.			
Indicator 8 :	Constitution of a bridge management unit in MTPTC			
Value (quantitative or Qualitative)	No.	Yes.		Yes.
Date achieved	11/18/2008	11/19/2008		05/31/2015
Comments (incl. % achievement)	100% Achieved. Bridge Management Unit was established, and the Road Maintenance Division was staffed with training engineers. Unit has completed the country's first comprehensive national bridge inventory.			
Indicator 9 :	Vulnerability Reduction Unit established within MPCE and a National Framework for Vulnerability Reduction created, in place before the end of 2012 and integrated into sectoral policies and programs before the end of 2013.			
Value (quantitative or Qualitative)	No.	Yes.	Dropped.	See PDO indicator #1
Date achieved	11/18/2008	11/19/2008	05/30/2013	05/31/2015
Comments (incl. % achievement)	Original indicator "est. of CRV Unit" revised to above (2011), dropped in 2013. Unit & staff transferred from MPCE to CIAT. NDRMS Reform abandoned by GoH due to other priorities post-earthquake. Policy dialogue recommenced in 2012, financed by DRMRP.			
Indicator 10 :	Timely presentation of Disaster Recovery and Reconstruction Program(s) are submitted and coordinated every semester and yearly by all stakeholders from second semester of 2011.			
Value (quantitative or Qualitative)	No.	Yes.	Dropped.	Achieved until practice discontinued 2013.
Date achieved	11/18/2008	11/19/2008	05/30/2013	05/31/2015
Comments (incl. % achievement)	Dropped Restructuring 2014. Dedicated PM's office installed after 2010 Earthquake was discontinued and presentations no longer held.			
Indicator 11 :	A Multi-sectoral Vulnerability Reduction Unit (EM-VRU) created and operational within CIAT before the end of the project.			
Value (quantitative or Qualitative)	0	4	Yes/No	Yes
Date achieved	11/18/2008	11/19/2008	10/10/2014	05/31/2015
Comments (incl. % achievement)	Revised Restructuring 2014. 100% Achieved: CRV (French for EM-VRU) was created and is presently operational within CIAT. This CRV was transferred from MPCE.			

Indicator 12 :	Transversal development strategies developed by CIAT (i.e.: watershed management, urban planning, territorial development and land tenure, Risk Prevention Plans) established and in place before end of project.			
Value (quantitative or Qualitative)	0	Yes.	6	6
Date achieved	11/18/2008	11/19/2008	10/10/2014	05/31/2015
Comments (incl. % achievement)	Revised Restructuring 2014 (mentions only CIAT because includes the CRV). 100% Achieved. Transversal development strategies & instruments were developed by CIAT incl. key strategic documents regarding risk, watershed management & urban plans.			
Indicator 13 :	Disaster risk management principles integrated and assessed into these transversal strategies			
Value (quantitative or Qualitative)	No.	Yes.	Dropped.	See Indicator #12
Date achieved	11/18/2008	11/19/2008	05/30/2013	05/31/2015
Comments (incl. % achievement)	Revised (2011) by including "assessed", and then dropped (2013). However the target was achieved. Instruments to integrate DRM in territorial planning were developed under Indicator #12.			

G. Ratings of Project Performance in ISRs

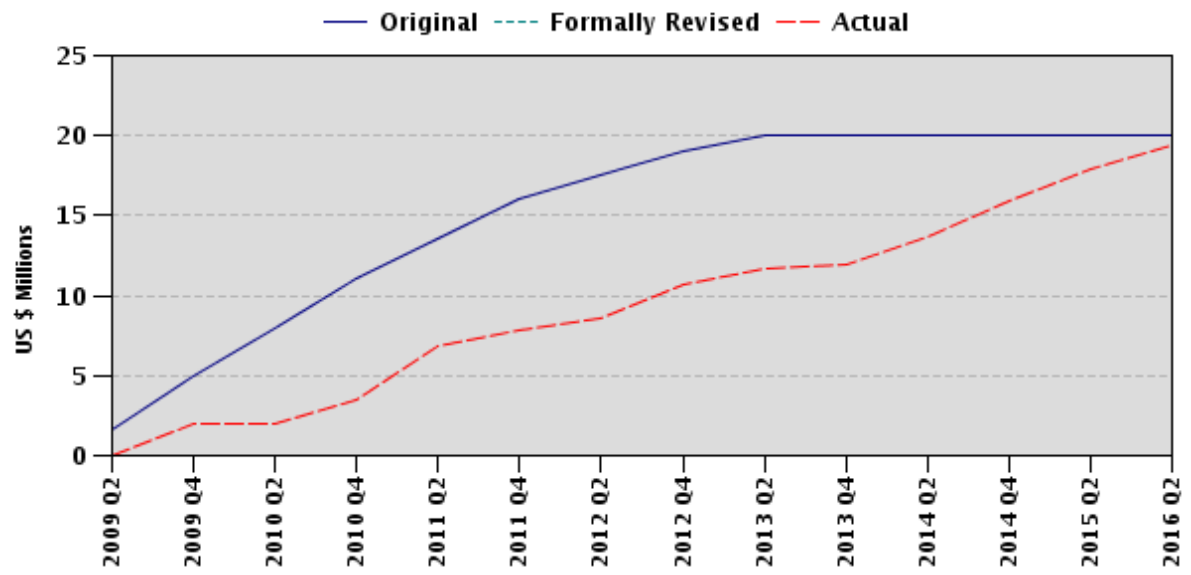
No.	Date ISR Archived	DO	IP	Actual Disbursements (USD millions)
1	12/01/2008	Satisfactory	Satisfactory	0.00
2	04/07/2009	Satisfactory	Satisfactory	0.00
3	07/29/2009	Satisfactory	Satisfactory	2.00
4	09/02/2009	Satisfactory	Satisfactory	2.00
5	05/12/2010	Satisfactory	Satisfactory	3.40
6	02/22/2011	Moderately Satisfactory	Moderately Satisfactory	6.84
7	11/02/2011	Moderately Satisfactory	Moderately Satisfactory	8.55
8	06/27/2012	Moderately Satisfactory	Moderately Satisfactory	10.65
9	02/24/2013	Moderately Satisfactory	Moderately Satisfactory	11.78
10	12/01/2013	Moderately Satisfactory	Moderately Unsatisfactory	12.66
11	02/24/2014	Moderately Satisfactory	Moderately Unsatisfactory	14.27
12	09/01/2014	Moderately Satisfactory	Moderately Satisfactory	15.92
13	03/12/2015	Moderately Satisfactory	Moderately Satisfactory	18.73
14	06/01/2015	Moderately Satisfactory	Moderately Satisfactory	19.11

H. Restructuring (if any)

Restructuring Date(s)	Board Approved PDO Change	ISR Ratings at Restructuring		Amount Disbursed at Restructuring in USD millions	Reason for Restructuring & Key Changes Made
		DO	IP		
03/21/2011	N	MS	MS	7.05	The first Restructuring (2011 Restructuring) occurred following the January 12, 2010 Earthquake, when the GoH requested a restructuring to: (i) reallocate unallocated funds from Category 6 to Category 2 to cover cost overruns in Component 2; and (ii) change outputs associated with Component 4, specifically renaming and expanding the role of the Vulnerability Reduction Unit, and introducing changes to the Technical Assistance activities. The Restructuring was approved by the Special Envoy on March 21, 2011.
05/30/2013	N	MS	MS	11.78	The second Restructuring (2013 Restructuring), approved on May 30, 2013, was at the request of the GoH to: (i) extend the closing date by 21 months, from June 30, 2013 to March 31, 2015, to allow for completion of the construction of the bridge Le Theme in Mirebalais under Component 1; (ii) account for changes to outputs associated with Component 1 and Component 2, as a result of compounded urgent and emergency response activities following adverse natural events; (iii) reallocate funds from Category 2 and Category 3 to Category 1; (iv) facilitate changes to the Technical Assistance (TA) activities under Component 4 to reflect the changes in the institutional framework for vulnerability reduction in Haiti; and (v) slight modifications to

Restructuring Date(s)	Board Approved PDO Change	ISR Ratings at Restructuring		Amount Disbursed at Restructuring in USD millions	Reason for Restructuring & Key Changes Made
		DO	IP		
					the intermediate indicators to monitor the results expected from the modified activities.
10/10/2014	N	MS	MS	16.11	The third Restructuring (2014 Restructuring), approved on October 10, 2014, involved several changes, including: (i) extension of the closing date by 2 months, from March 31, 2015 to May 31, 2015 to allow for completion of the Rural Access Index (RAI) study under Component 3, and the risk assessment studies and associated Risk Management Plans (PPRs) for the cities of Cap-Haitien and Les Cayes under Component 4; (ii) reallocation of funds from Category 4 to Categories 1, 2 and 3 to accommodate cost overruns; and (iii) changes to the Project Results Framework and Monitoring, which include minor revisions to target values for related intermediated indicators to monitor the results expected from the modified activities.

I. Disbursement Profile



1. Project Context, Development Objectives and Design

1.1 Context at Appraisal

(a) Country and Sector Background

1. **Country Context.** At the time of project approval, in November 2008, Haiti had struggled for several decades to emerge from a cycle of political instability and internal conflicts that devastated its economy and weakened state institutions, worsened by poor governance practices which maintained or deepened poverty. In 2004, Haiti was devastated by Hurricane Jeanne, which caused some US\$169.5 million in damages, and took more than 4,000 lives. Tropical Storm Noel, which struck Haiti in October 2007, caused flash floods and mudslides in the Western part of the country, resulting in 66 deaths and almost 15,000 lost homes. In March 2008, rising world prices for food and oil triggered violent protests, leading the Senate to vote then Prime Minister Jacques-Edouard Alexis out of office on April 12, 2008. Finally, after a period of political instability during which the country did not have a confirmed Government, the 2008 hurricane season was particularly severe, with the passage of three major tropical storms and one hurricane (Fay, Gustav, Hanna and Ike - FGHI) over a four-week period. The combined toll of these storms was some 793 killed, and 301 injured, with 1 million people affected. The result was a collapse of the already weak national transport system—several main roads and bridges were heavily damaged, stifling the passage of goods and services and cutting off entire regions from others—and major crop destruction, crippling food production. All of this was exacerbated by the 2010 earthquake which occurred two years into project implementation and which caused unprecedented damage, by far the worst natural disaster to strike Haiti in recent history.

2. **DRM Sector.** The FGHI emergency revealed important shortfalls in Haiti's infrastructure policies and National Disaster Risk Management System (NDRMS). Critical issues identified included: (i) a lack of an integrated approach to disaster prevention (including poor urban planning, inefficient water management and significant erosion caused by environmental deterioration); (ii) inadequate technical standards for infrastructure construction; (iii) lack of infrastructure maintenance; and (iv) lack of technical capacity and institutional structures to properly address crisis management and reconstruction. The crisis particularly highlighted the importance of road and bridge maintenance and resilient designs, since those roads and bridges that had been properly maintained were less affected.

3. **Transport Sector.** The transport sector represented a major bottleneck to Haiti's social and economic development. With about 90 percent of the country's overall traffic by land, Haiti has a limited road network of about 3,400 km, including 700 km of national roads, 1,500 km of departmental roads, and 1,200 km of tertiary roads. This road network suffered heavily from lack of maintenance, and from the impacts of climate change and variability, and entire regions remained isolated during the rainy season. At Project appraisal, damage to the transport sector was particularly severe, with several regions in the country completely isolated, and the economy in province's departments almost

completely paralyzed. The Artibonite region faced catastrophic circumstances with major flooding in Gonaives, and access from both the north and south compromised due to the collapse of four major bridges (Montrouis, Ennery, Chalon and Mirebalais). Numerous smaller bridges and road sections were also either destroyed or damaged.

(b) Rationale for Bank involvement.

4. The Bank and the Government of Haiti (GoH) have established an effective partnership since the reengagement of the international community in Haiti in 2004, with the Bank playing a prominent role in financing Disaster Risk Management and Transport programs. The Bank had a longstanding experience in supporting the transport sector nationwide, first engaging in 1955, and followed by seven investments and technical assistance operations, with a particular focus since 2004 on strengthening the road maintenance country system to improve resilience and protection of assets with the Transport and Territorial Development Project – P095523) and the Disaster Risk Management (DRM) sector with the Emergency Response Disaster Management Project (P090150) approved in 2005, both of which were still under implementation at this Project’s appraisal.

5. A World Bank technical assistance team was also deployed in the immediate aftermath of Tropical Storm Gustav (second storm) to: (i) assist MTPTC in dealing with the emergency operations; (ii) provide technical guidance on immediate repair and designs to restore minimal connectivity; and (iii) identify medium and long term needs.

6. The GoH officially requested financial and technical assistance from the Bank to support its Post-Disaster Needs Assessment (PDNA) and the recovery and reconstruction program to be created in the aftermath of FGHI. The Bank-hosted Global Facility for Disaster Reduction and Recovery co-led a PDNA and evaluated the total damage of FGHI at \$897 million, or the equivalent of 14.6% of the GDP within weeks of the passing of Hurricane. In terms of economic impact, prior to the 2010 earthquake, FGHI was the largest disaster in Haiti’s recent history.

7. **Interim Strategy Note (ISN).** PROReV was fully aligned and consistent with the Interim Strategy Note. Economic recovery was a central axis of the 2006 Haiti ISN, which included the transport sector and the management of natural disasters and risks as key components. The GoH further recognized the strategic importance of an improved transport sector and disaster risk by featuring both as key elements of their Poverty Reduction Strategy Paper in November 2007.

1.2 Original Project Development Objectives (PDO) and Key Indicators

8. The original Project Development Objective as described in the Financing Agreement was to: (i) assist the Recipient in restoring access on selected critical points of

its transport system following the FGHI Emergency; and (ii) reduce vulnerability to national disasters by strengthening its NDRMS.¹

9. The key original project performance indicators retained, as per the PAD Results Framework, were:

- Disaster risk management units within key ministries are operational and sustainable, with adequate resources and staffing;
- Ministry of Public Works, Transportation and Communication (MTPTC) bridge management unit is operational and sustainable, with adequate resources and staffing;
- Ministry of Planning and External Cooperation (MPCE) recovery and reconstruction planning unit is operational and sustainable with adequate resources and staffing (as MPCE was responsible for vulnerability reduction activities)
- Permanent Secretariat of Disaster Risk Management (SPGRD) unit is reinforced, operation and sustainable.(as part of the NDRMS)

1.3 Revised PDO (as approved by original approving authority) and Key Indicators, and reasons/justification

10. The PDO definition remained unchanged during project implementation.

11. These changes occurred in response to the 2010 earthquake and its aftermath, the most severe disaster that Haiti has experienced in recent years. The 2010 earthquake killed an estimated 220,000 people, displaced over 1.5 million people, and destroyed or damaged, 150,000 buildings. The buildings of several key-line ministries collapsed outright, including Ministry of Economy and Finance (MEF), MTPTC, and MPCE. These revisions were necessary to adapt the project to the emergency context and changing government priorities in the wake of the crisis, but continued to fulfill the development objective of the project, and ultimate outcomes.

¹ The PDO in the PAD is to (i) restore access on selected critical points of the Haitian transportation system and (ii) support vulnerability reduction by strengthening the Haitian National Disaster Risk Management System. The PDO used for this ICR evaluation is that in the Financing Agreement. The differences with the Financing Agreement formulation are editorial.

Table 1: Revisions to PDO Level Indicators

PDO Level Indicators				
Original Indicators	Revised Indicators			Comments
	2011 Restructuring	2013 Restructuring	2014 Restructuring	
Indicator 1. Disaster Risk Management Units within key ministries are operational and sustainable, with adequate resources and staffing.	Revised. Disaster Risk Management Units within key ministries are operational and sustainable, with adequate instruments/tools and staffing before the end of 2013. <i>(Change Process: Country Director Approval – 2011 Level 2 Restructuring)</i>	Revised. Disaster Risk Management Units within key ministries are operational and sustainable, with adequate instruments/tools and staffing before the end of the project. <i>(Change Process: Country Director Approval – 2013 Level 2 Restructuring)</i>	No change.	Target and scope of indicator did not change. The changes merely align the end date of the target of the indicator with the extended closing date.
Indicator 2. MTPTC bridge management unit is operational and sustainable, with adequate resources and staffing.	No change.	No change.	No change.	
Indicator 3. MPCE vulnerability reduction unit is operational and sustainable.	No change.	Dropped. This unit was transferred to the Inter-Ministerial Committee for Territorial Development (CIAT) attached to the Prime Minister's office serving as the coordinating body of the 6 key-line ministries (including the MPCE and MTPTC) on territorial planning and development and vulnerability reduction, among other things. <i>(Change Process: Country Director Approval – 2013 Level 2 Restructuring)</i>	N/A	This indicator was dropped since this unit was transferred to CIAT. The objective was to be achieved through CIAT, the central coordinating body, rather than through a single Ministry, MPCE.
Indicator 4. Permanent Secretariat of Disaster Risk Management (SPGRD) unit is reinforced, operational and sustainable.	Revised. National Disaster Risk Management System (NDRMS) Policy and framework assessed and strengthened before the end of 2013. SPGRD is one piece of the broader NDRMS. The indicator was revised following the 2010 Earthquake to	Dropped. This indicator was dropped when it became apparent during the transition from the emergency response phase to the recovery and reconstruction phase post-earthquake that the assessment and proposed reforms would not be possible during the lifetime of the project, mostly due	N/A	

	reflect the modification of activities to strengthen weaknesses in the broader system, not simply reinforce the Permanent Secretariat. <i>(Change Process: Country Director Approval – 2011 Level 2 Restructuring)</i>	to shifted government priorities and capacities. <i>(Change Process: Country Director Approval – 2013 Level 2 Restructuring)</i>		
Indicator 3. (New) Roads rehabilitated (km), non-rural roads	N/A	New. This indicator was added as a core indicator to capture the number of kilometers of roads rehabilitated under the project. <i>(Change Process: Country Director Approval – 2013 Level 2 Restructuring)</i>	No change.	

1.4 Main Beneficiaries

12. In response to the 2007 and 2008 hurricane seasons, project resources were channeled to repair and reinforce selected infrastructure that were identified as key to ensuring the continuity of the national road network and restore connectivity to the isolated departments. Intended beneficiaries included the population living close to targeted areas of intervention financed under the project. These interventions were meant to enable the local population to preserve their livelihood base, including access to markets and to basic social services.

13. The beneficiaries are divided into four categories:

- The population of the isolated departments (South, Grande Anse, Center, and Artibonite) following the impact of FGHI;
- The riverside populations of targeted interventions of the activities, for example, Mirebalais, Solon, Cavaillon, etc;
- The national population in general, through the strengthening of institutions in charge of risk management and resilience MTPTC, MPCE, Inter-Ministerial Committee for Territorial Planning (CIAT – *Comité Interministériel d'Aménagement du Territoire*) under the Primature (Prime Minister's Office), Vulnerability Reduction Unit (CRV), SPGRD as part of the NDRMS;
- Government's officials and public servants from MTPTC, MPCE, NDRMS, and CIAT, benefitting from the technical assistance and capacity strengthening activities financed by the project.

1.5 Original Components

14. The PDO was expected to be met through the four components described below in Table 2.

1.6 Revised Components

15. All four project components were revised as a result of the three restructurings, presented below in Table 2.

Table 2: Original and Revised Components

Original Project	2011 Restructuring	2013 Restructuring	2014 Restructuring
Component 1: Reconstructing Select Bridges to Restore Access (US\$7.2 million): This component retroactively financed emergency works performed by MTPTC to restore basic access in areas where major bridges had collapsed (sub-component 1.1). The component also sought to rebuild two of the four damaged main bridges (Mirebalais and Chalon), help the MTPTC acquire a stock of emergency bridges in preparation for future disasters and provide targeted assistance to bridge reconstruction works financed by other donors (sub-component 1.2).	No change.	Revised. Component 1: Implementing a Program of Bridge Reconstruction (US\$7.9 million): The costs for Component 1 were higher than anticipated due to costs associated with the rehabilitation of the <i>La Theme</i> bridge. As a result of other cost overruns for several activities under Component 1 due to compounded emergency response activities following the Earthquake (2010), Hurricane Tomas (2010), and Hurricane Sandy (2012), several activities were dropped from the project. These activities included: (i) construction of Chalon Bridge; (ii) repairs of Estimé Dumarsais Bridge; and (iii) rehabilitation of the Roseaux and Voldrogue Bridges. ² The title of the Component was also revised to reflect reconstruction during the post-earthquake recovery and reconstruction phase.	Revised. Component 1: Implementing a Program of Bridge Reconstruction (US\$8.03 million): Financing released under Category 4 (Component 4) was reallocated to Component 1 to cover continued cost overruns due to the rehabilitation of <i>La Theme</i> bridge.
Component 2. Improving the Resilience of Transport Infrastructure (US\$4.9 million): This component financed several repair and consolidation works on damaged or weakened bridges and road sections. Before appraisal, an indicative list of works was prepared by MTPTC, with the assistance of a Bank mission that visited Haiti immediately after the FGHI storms. This component aimed to also finance community-based routine maintenance	Component 2. Improving the Resilience of Transport Infrastructure (US\$5.35 million): Reallocation of unallocated funds from Category 6 to Category 2 (Component 2). No change to activities.	Component 2. Improving the Resilience of Transport Infrastructure (US\$4.64 million): This restructuring involved a reallocation of funds from Category 2 (Component 2) to Category 1 (Component 1) to finance cost overruns under Component 1. Financing under Component 2 was released as a result of the dropping of Sub-component 2.2 – Community Based Routine Maintenance Activities. These activities were directly undertaken by the <i>Fond d'Entretien Routier</i> (FER), the maintenance unit within	Component 2. Improving the Resilience of Transport Infrastructure (US\$4.64 million): Financing released under Category 4 (Component 4) was reallocated to Component 2 and financed 2 additional spot repairs.

² These construction, repair and rehabilitation activities were transferred to and financed by the Disaster Risk Management and Reconstruction Project (P126346), and have since been completed.

activities, which sought to improve the resilience of selected infrastructure damaged by FGHI, and contribute to improved management of bridge assets.		MTPTC with its own resources, and as such, these funds were re-allocated to cover cost overruns under Component 1. ³	
Component 3: Improving Transport Asset Management ((US\$2,585,000)). This component financed a number of capacity building activities aiming to develop good practices in bridge asset management, hydraulic monitoring and strengthening the institutional capacity of the MTPTC and its regional offices, including: (i) the development of a comprehensive bridge inventory; (ii) the development of a crisis management unit in MTPTC; (iii) the development of a bridge asset management unit in MTPTC, in charge in particular of managing the bridge inventory and of piloting a hydraulic monitoring program; (iv) launching of a Young Engineers Program in MTPTC; (v) travel and subsistence costs for MTPTC civil servants incurred as part of emergency response or asset management activities; (vi) development of a strong and dedicated implementation team in UCE and MTPTC; and (vii) financing of safeguards-related studies, as well as project audits.	No change.	Revised. Component 3: Strengthening Transport System Asset Management (US\$2,556,000). This component was renamed to reflect that project activities were strengthening, rather than merely “improving” transport asset management. This restructuring also involved a reallocation of funds from Category 3 (Component 3) to Category 1 (Component 1) to cover cost overruns under Component 1 due to the rehabilitation of <i>La Theme</i> bridge. However, the restructuring also added technical assistance for the establishment of a GIS unit, and associated training, within the MTPTC. The administration, supervision, and M&E activities, as well as capacity building and technical assistance under Component 3 were lower than both the original and revised estimates, despite that fact that the volume of activities following the project restructurings increased.	Component 3: Strengthening Transport System Asset Management (US\$2,910,000). Financing released under Category 4 (Component 4) was reallocated to Component 3 and financed the elaboration of the Rural Access Index (RAI).
Component 4: Support Vulnerability Reduction by Strengthening Haiti’s NDRMS (US\$4,900,000). This component sought to finance a comprehensive technical assistance package to support the creation of	Revised. Strengthening Haiti’s National Disaster Risk Management System (NDRMS) (US\$4,900,000). This component was renamed to reflect the change in	Revised. Strengthening Haiti’s National Disaster Risk Management System (NDRMS) (US\$4,900,000). Revised to support CIAT’s key functions/thematic working groups: land-use planning, water and risk management, habitat and	Revised. Strengthening Haiti’s National Disaster Risk Management System (NDRMS) (US\$3,615,000). Revised to release unused

³ The activities were completed by FER.

a post-disaster recovery and coordination unit within the MPCE and provide technical assistance to strengthen the vulnerability reduction capacities of the NDRMS per the recommendations of the PDNA (sub-component 4.1 & 4.2). Coordination arrangements included MPTC, particularly with regard to the implementation of the proposed project (components 1, 2 and 3), but also other ministries and relevant institutions. This component also sought to pilot a more integrated approach to disaster prevention through strategic studies to be performed in selected areas particularly vulnerable to natural disasters such as Gonaives or Etang Saumatre-Lac Azuei (sub-component 4.3).	the approach to the NDRMS following the 2010 earthquake. CIAT did not exist at project preparation, as it was only established in March 2009 to serve as an inter-ministerial committee comprised of six key-line ministries working in conjunction to influence development and territorial planning. Under this Restructuring, the GoH requested support for the provision of technical assistance to CIAT in lieu MPCE given its place in the Premature and coordinating role. BMPAD-UCP remained the fiduciary unit for this Component, not affecting the implementation arrangements	urban development, and mapping/IT. BMPAD-UCP remained the fiduciary unit.	funding to Categories 1, 2 and 3 (Components 1, 2, and 3). CIAT continued to be responsible for the preparation of the risk assessment studies and associated risk management plans (PPRs) for the cities of Cap-Haitien and Les Cayes. BMPAD-UCP remained the fiduciary unit.
<i>Sub-component 4.1: Creation of a disaster recovery and reconstruction coordination unit with the MPCE (US\$1,180,000)</i>	Revised. (US\$1,685,000) to expand the role of the Disaster Recovery and Coordination Unit (DRCU) to cover the establishment of the National Framework for Vulnerability Reduction, and the design, preparation and integration of vulnerability reduction policies and tools into sectoral programs for key line ministries. This also included the renaming of the DRCU to the Vulnerability Reduction Unit (CRV).	Dropped. Financing for the CRV within MPCE was discontinued as of November 2011 due to changes in the national institutional framework for vulnerability reduction. The CRV, and all its capacities, were subsequently transferred to CIAT.	N/A.
<i>Sub-component 4.2: Institutional support program to the NDRMS (US\$2,220,000)</i>	Revised. (US\$1,305,000). Financing was transferred to expand the role of the CRV, and provision of technical assistance to CIAT.	Revised. <i>Sub-component 4.1: Provision of Technical Advisory Services to NDRMS (US\$3,017,000)</i> Activities under this sub-component were reprioritized to focus on: (i) Technical Assistance to assess the current status of risk assessment in the country, to develop a	<i>Sub-component 4.1: Provision of Technical Advisory Services to NDRMS (US\$1,015,000).</i> Unused financing transferred to sub-component 4.2

		methodology for the preparation of <i>Plans de Prévention des Risques</i> (PPR – Risk Management Plans) and to support the development of an appropriate institutional and regulatory framework for the integration of disaster risk management into territorial planning; (ii) Technical Assistance for the preparation and validation of two risk assessment studies and associated PPRs for the cities of Cap-Haitien and Les Cayes; and (iii) Technical Assistance for the finalization and dissemination of a National Multi-hazard Atlas. These activities were to be implemented under the leadership CIAT in close consultation with other stakeholders of the NDRMS, including SPGRD.	
<i>Sub-component 4.3: Integrated approaches to disaster prevention</i> (US\$1,500,000)	Revised. <i>Sub-component 4.3: Integrated approaches to disaster prevention</i> (US\$1,910,000) This sub-component consisted of the piloting of two watershed vulnerability reduction studies which were eliminated in favor of financing the provision of technical assistance and training to the thematic working groups of the CIAT, as per the request of the Prime Minister's Office.	Revised. <i>Sub-component 4.2 – Technical Assistance to Inter-Ministerial Committee for Land-Use Planning (CIAT)</i> (US\$1,910,000): Support to CIAT was extended throughout the project extension period to target key functions/thematic working groups of CIAT: Land-use planning, Water and Risk Management, Habitat and Urban Development, and Mapping/IT.	Revised. <i>Sub-component 4.2 – Technical Assistance to Inter-Ministerial Committee for Land-Use Planning (CIAT)</i> (US\$2,610,000): Financing was transferred from sub-component 4.1 to continue the activities of CIAT.

1.7 Other significant changes

16. The Project was revised following the 2010 Earthquake to reflect the modifications of activities and allow for more emergency works. The Project underwent three Level Two Restructurings. The first Restructuring (2011 Restructuring) occurred following the January 12, 2010 Earthquake, when the GoH requested a restructuring to reallocate unallocated funds from Category 6 to Category 2 to cover cost overruns in Component 2 (see Table 4 in Annex 1) in addition to revisions in Component 4 (see Section 1.6). The level II Restructuring was approved by the Special Envoy on March 21, 2011.

17. The second Restructuring (2013 Restructuring), approved on May 30, 2013, was at the request of the GoH to: (i) extend the closing date by 21 months, from June 30, 2013 to March 31, 2015, to allow for completion of the construction of the bridge Le Theme in Mirebalais under Component 1 and(ii) reallocate funds from Category 2 and Category 3 to Category 1 (see Section 1.6 and Table 4 in Annex 1) in addition to the changes described in Sections 1.3 and 1.6.

18. The third Restructuring (2014 Restructuring), approved on October 10, 2014, involved several changes, including: (i) extension of the closing date by 2 months, from March 31, 2015 to May 31, 2015 to allow for completion of the Rural Access Index (RAI) study under Component 3, and the risk assessment studies and associated Risk Management Plans (PPRs) for the cities of Cap-Haitien and Les Cayes under Component 4; and (ii) reallocation of funds from Category 4 to Categories 1, 2 and 3 to accommodate cost overruns.

Results Framework

19. The Results framework was adjusted throughout the lifetime of the project to accommodate successive shocks in the country context and substantial institutional changes. The rationale and changes of the three restructurings are reflected in Table 6 in Annex 2.

2. Key Factors Affecting Implementation and Outcomes

2.1 Project Preparation, Design and Quality at Entry

20. **Assessment of Project Design.** The PDO was relevant and consistent with the 2006 Interim Strategic Note (ISN 2006) and was fully aligned with the needs of the post FGH storms context. Considering the emergency context and the PDO, the choice to process the operation under OP/BP 8.00 guidelines was adequate. The strong involvement of the government especially MTPTC staff and most of the technical directorates in project preparation ensured full ownership.

21. Two aspects of the project design are particularly noteworthy in that they contributed to the coherence of the project in a volatile environment and to laying the foundation for future sustainability. First, the design was built on government ownership

and close coordination with other development actors which ensured complementarity among efforts. The project design also benefitted from: (i) including the recommendations from experienced international emergency bridge specialists that had been hired under a financing agreement with the EU; and (ii) support from the “Donors Tables” (DTs). Second, recognizing the current ad-hoc nature of community engagement in disaster response and preparedness, the design incorporated a long-term reinforcement and capacity building of institutions to respond to future adverse natural events.

22. The PDO was developed to respond to the emergency context and resulting development priorities at that time. The PDO was realistic and reachable as it focused on the outcome for which the project could reasonably be held accountable given its duration, resources, and approach. To achieve the two PDO elements, the project was divided into four operational components: Components 1 and 2 aimed to contribute to urgent and emergency response activities following adverse natural events. Components 3 and 4, were aligned with new institutional needs, including data collection to understand various levels of vulnerability and risk, and to support improved management of the road network with increased knowledge and tools necessary to identify critical points.

23. **Institutional arrangements.** PRORéV’s PIUs were also identified following heavy consultation with the GoH and key-line ministries. The project relied on two implementation units:

(i) **The Coordination and Execution Unit (UCE – *Unité Centrale d’Exécution*) of the MTPTC.** Composed from a mix of civil servant and national consultants, UCE was implementing most of the externally-financed investments in transport in Haiti, with resources from the Inter-American Development Bank (IaDB), Canada (CIDA), and the Bank-financed PTDT (P095523). As such, it has the benefit of capacity and the ability to compensate for institutional weaknesses at the level of line ministries. While the UCE had been very successful in assuming the fiduciary responsibility associated with these operations, it had yet to demonstrate capacity in handling technically larger complex interventions and in implementing activities under a tight schedule. Despite some limitation at that time and considering the need to handle with celerity an emergency response the UCE remained the best available option to manage transport investments within MTPTC. To mitigate the potential related risks, PRORéV included activities to strengthen UCE’s implementation capacity. UCE was charged with the overall responsibility to implement Components 1, 2 and 3 of the project, as well as overall supervision.

(ii) **Bureau de Monétisations et Programmes d’Aide au Développement’s Unité de Coordination de Projet (BMPAD-UCP)** was responsible for serving as the fiduciary agent on behalf of MPCE for activities under Component 4. The BMPAD fell under the tutelage MEF and was one of the Government’s principal donor project management units. At the time, the BMPAD-UCP was implementing several Bank-financed projects, including select components of the Emergency Recovery and Disaster Risk Management Project (ERDMP - P090159) and the PTDT (P095523). The BMPAD-UCP had a full complement of technical and fiduciary staff and had been very successful in managing the

implementation responsibilities associated with these operations. Though BMPAD-UCP managed the fiduciary responsibilities, MPCE was responsible for the implementation of project activities under Component 4.

24. The project's implementation arrangements through PIUs backed by Government commitment to the objectives of the project allowed for responsiveness, flexibility, and the achievement of concrete results, despite a highly volatile environment (disasters and institutional change). In retrospect, regarding implementation arrangements, stronger explicit policies and protocols for communication and coordination on Monitoring and Evaluation (M&E) between Project Implementation Units (PIUs) could have improved outcomes and should be put in place for future projects involving multiple implementation entities. Section 2.2 will provide more detail on how the arrangement of two PIUs played out over the course of implementation.

25. **Incorporation of lessons learned.** As one of the first Emergency projects following the Bank's re-engagement in Haiti in 2005, the project could not build on many examples of best practices especially in the area of DRM) since the first DRM project (EDRMP) in Haiti was under implementation at the time. Nevertheless the project design accounted for lessons learned from previous Bank-financed operations in Haiti and from Bank-wide experience with emergency response operations and within the context of a fragile state. In particular, the project took account of: (i) simplified objectives and scope limited to 1 or 2 sectors; (ii) use of reinforced existing implementing agencies; (iii) strong technical assistance packages to accompany implementation and build capacity.

26. **Adequacy of government commitment.** Both the MTPTC, through UCE, and MPCE, through BMPAD-UCP, were firmly involved and committed in preparation activities. Immediately following FGHI, the GoH initiated an emergency response by restoring basic access on the major national roads. As part of the Emergency State Law (*Loi sur l'Etat d'Urgence*) promulgated on September 15, 2008, the GoH had directly contracted four main Haitian construction firms, using unit prices from on-going competitively awarded contracts. The design of the objectives per Component, the choice of enterprises (local SMEs vs. ICBs), the scale of intervention, choice of technology, procurement, coordination with other donors, GoH priorities, were amongst the issues raised by the government. The GoH drew up the lists of prioritized works and the Bank, in collaboration with other donors, prepared a PDNA that supported and informed the design of PRORéV.

27. **Risk assessment.** The project design identified a number of risks, including: (i) delays in reconstructed infrastructure prior to following hurricane season, affecting credibility of Government, and donors and contributing to civil unrest and political instability; (ii) combination of adverse natural events over-exceeds the capacity of Haitian institutions to respond; (iii) design standard under-dimensioned to cope with future hurricane seasons; (iv) institutional infighting; (v) insufficient capacity building; (vi) reconstruction program is over focused on quick re-builds and less on preventative measures and policies; (vii) government commitment to DRM diverted by other issues; and (viii) ineffective coordination between project implementation units resulting in

BMPAD's inability to engage the contribution of critical ministries. After taking possible mitigating actions into consideration, the overall risk rating was **High**.

28. As reflected in the supervision reports, the achievement of the PDO was never at risk. Although all of the above risks materialized to various extents, the proactive implementation response (restructurings) and the flexibility demonstrated by staff and Government in supervising the project helped mitigate their impacts. In particular, major adjustments were made to respond to the 2010 earthquake which compounded adverse natural events and institutional weaknesses.

29. **Economic Analysis.** As the project was developed under OP/BP8.00, no economic or financial analysis was carried out.

30. **Quality at Entry.** No Quality at Entry evaluation was carried out.

2.2 Implementation

31. There are five important factors that impacted project implementation both negatively and positively.

32. **Public sector weakness:** The weakness of public sector management was a long-standing issue when project implementation began. Given the weakness of the central administration and the need for capacity building within the ministries, the 'parallel' ad hoc project structures (PIUs) that were selected were designed to fulfill immediate needs and ensure project efficiency. Though the project could have been implemented using alternative arrangements (e.g. management contracts with consulting firms), this would have weakened the project's longer-term objective of building capacity within Haitian government institutions to manage vulnerability and build resilience to disasters.

33. **Disruptions and delays caused by the 2010 earthquake:** The 2010 Earthquake caused catastrophic damage, resulting in unprecedented disruptions and delays, halted regular administrative activities and diverted the focus of the MPCE and the NDRMS (including the SPGRD) to short-term disaster relief and reconstruction efforts. Additionally, the earthquake caused an almost complete collapse of government operations. Luckily, UCE and BMPAD only suffered limited direct human losses and damage, and as such, these institutions were able to maintain minimal activity in the immediate aftermath of the earthquake and were called on to make massive contributions to disaster-relief and reconstruction activities. The operating capacity of both institutions was quickly severely overstretched. The earthquake also required the mobilization of the NDRMS diverting sectoral efforts accomplished since 2004, and prevented the growth of an appropriate environment for real DRM policy reform. These issues led to the revision/removal of 6 indicators (two PDO level). Several adjustments were required to reflect the changing institutional environment and priorities, including the creation of a new PDO level indicator, allowing for a more complete understanding of the activities within the implementation channels (see Table 6 in Annex 2).

34. **Impact of other Natural Disasters.** While the occurrence of natural disasters hampered overall project implementation, the project nonetheless managed to respond to these events in a rapid and flexible manner. Hurricane Tomas (2010) and Hurricane Sandy (2012) both caused severe flooding resulting in significant loss of life and damage to infrastructure. This led to an extension of the closing date and to a scale up in activities under Components 1 and 2 to enable the project to adequately respond to these emergencies.

35. **Donor coordination and strategic alliances in the context of the emergency:** The Bank successfully coordinated with the USAID and *Agence Francaise de Développement* (AFD) to address emergency transport needs. The *Table Sectorielle Transport* was also used during project preparation to coordinate and orientate complementary interventions. Strong cooperation between development organizations such as the Bank, AFD and the USAID was a factor of success and responsiveness especially in the context of the emergencies. For instance, when financing fell short for a 4th overpass to be built under Component 1, AFD completed the work. Studies from the project were also used to underpin works under other IDA projects (PRGRD). Such coordination was time consuming but effective in a context where resources were limited.

36. **Institutional arrangements:** Initially, the establishment of a CRV within MPCE seemed feasible but was quickly revised following the 2010 earthquake, given the devastating impact on the key-line ministries. As a result, the institutional reforms necessary to achieve the activities, provided for under Component 4, were revised given the shift of GoH priorities, and their interest in building the capacity of CIAT as a coordinating body. CIAT, as a central actor within the Premature, was designed to anchor dialogue regarding vulnerability reduction resilience, among other things. Under the 2013 Restructuring, CIAT was identified as a more appropriate partner than MPCE because of its high-level mandate and capacity to assemble 6 key-ministries as a central coordinating committee, effectively accomplishing the same target as MPCE, but at a higher level with the greater potential for impact. CIAT was widely considered an analytical leader in post-earthquake reconstruction, and development strategies and programs. Ultimately, MPCE's responsibilities regarding the integration of DRM into territorial development were transferred to CIAT, including the CRV. These institutional arrangements also reinforced Component 4 activities which depended on the capacity of a transversal entity that could assemble and implicate the key ministries. BMPAD-UCP remained the fiduciary unit for CIAT.

2.3 Monitoring and Evaluation (M&E) Design, Implementation and Utilization

37. **Design.** The description of the M&E structure in the Emergency Project Paper was in accordance with generally acceptable practices. This included the establishment and operation of a Management Information System (MIS), technical audits, monitoring and evaluation reports. Additional human resources and equipment was provided to CIAT, BMPAD, and UCE. UCE was also tasked with completing an end-of-project impact assessment. Indicators were appropriate for measuring the objectives at the time.

38. **Implementation.** Whereas data collection and monitoring for Components 1 and 2 were straightforward and easy to collect, for Components 3 and 4, measuring institutional and capacity outcomes surpassed the capacity of UCE, BMPAD and CIAT. These required assessing qualitative outcomes and institutional processes, which the implementing entities were neither equipped nor mandated to do. By the end of the project however, it was clear that more efforts had gone into developing processes and procedures for M&E to improve overall capacity than into the effective collection of project data to report on the results framework for these two components.

39. A technical and impact assessment report prepared by independent consultants over six months prior to the closing of the project concluded that the project impact had been positive. It found that PDO (i): to assist the Recipient in restoring access on selected critical points of its transport system following the FGHI Emergency, was highly achieved. And that, the second part of the PDO, (ii) to reduce vulnerability to national disasters by strengthening its NDRMS, was substantially achieved. However, the report did not adequately capture the outcomes for Components 3 and 4. M&E strengthening is a priority across the Haiti portfolio and additional training, capacity building, and implementation support is currently being provided.

40. The Mid Term Review (MTR) was originally scheduled for early-2011, however the attention of the Government and PIUs at the time was entirely focused on the post-earthquake reconstruction process. The formal MTR was therefore delayed and ultimately cancelled given the disarray that prevailed at the time. Assessment of project progress and adjustments to the operation were undertaken in the context of the three restructurings.

2.4 Safeguard and Fiduciary Compliance

41. **Safeguards:** The safeguard policies that applied to the project were Environmental Assessment (OP/BP/GP 4.01), Forests (OP/BP 4.36), and Involuntary Resettlement (OP/BP 4.12) and the project complied with environmental and social safeguards. The potential adverse impacts from PRORéV investments turned out to be minimal. Road and bridge spot repairs had minimal impact of the environment and have not triggered any resettlement except for the construction of *La Theme* bridge. Compliance was monitored by the team during the many supervision missions. Additionally, MTPTC-UCE hired a new environmental specialist to monitor compliance and strengthened its social management team as part of its capacity enhancement plan developed to address the large increase of operations implemented by UCE. However, proper documentation on the compliance with environmental safeguards was lacking—the required completion of the environmental impact-assessment checklist for all civil works were not systematically applied. Social Safeguards management was rated MU during two ISR periods to reflect the lack of proper documentation of compensation to a few affected persons during the construction of *La Theme* bridge. Following Bank mission recommendations and a proactive response of the GoH, the situation was addressed and resolved. The PIU has benefited from trainings, technical assistance and its capacity has improved over project's life.

42. **Procurement.** The project complied with the Bank's fiduciary requirements with respect to the procurement of consultants, goods and works financed under the project as all project procurement, independent of amounts, was subject to the Bank's prior review. The execution of works, design and supervision by national firms was successful and provided substantial stimulus to the increase of private sector participation in this sector.

43. **Financial Management (FM) and audits.** The project complied with the Bank's fiduciary requirements with respect to the appropriate utilization of funds and submission of financial information, and maintained adequate financial management arrangement during project implementation. Audit reports submitted by the project units involved in project implementation reported appropriate use of Bank funds. By the end of the project, almost 100% of funds were utilized and the implementation units successfully closed the project.

44. **Project costs.** Total final project cost was SDR 12.8 million (US\$20 million equivalent) at the time of project approval. The costs for Component 1 were higher than anticipated due to costs associated with the rehabilitation of the *La Theme* bridge. Administration, supervision, and M&E activities, as well as capacity building and technical assistance under Component 3 were lower than both the original and revised estimates, despite that fact that the volume of activities following the project restructurings increased, demonstrating excellent cost efficiency under this component.

2.5 Post-completion Operation/Next Phase

45. At the request of the GoH, the Bank prepared another investment operation building on the successes of PROReV. The DRMDP (P126346) is currently on-going and is building directly upon the construction of resilient infrastructure approach spearheaded by PROReV. Additionally, the Center and Artibonite Regional Development Project (CARDP - P133352) draws on the groundwork laid by PROReV in the departments. Component 1 of CARDP aims to promote resiliency by building and rehabilitating major connection points, such as bridges and spot infrastructure repairs. By successfully applying many of the lessons learned from PROReV, these projects are sustaining the PROReV-spearheaded concepts and Bank engagement in road network connectivity and resiliency in Haiti.

46. The RAI allows for an evaluation of the degree of connectivity in the country: only 39%, of rural people live within 2 km of an all-weather road. Data collected highlighted particular rural connectivity issues and challenges: two-thirds of Haitians living in rural areas are living in areas that are poorly connected, and 50% of the surface of the country remains poorly connected. The project, and this RAI study in particular, have led to increased involvement with the connectivity agenda. Based on the preliminary results, MEF has increased the budget dedicated to strengthening rural connectivity in order to enhance access to the most isolated areas. This financing will result in additional benefits by: (i) linking small farmers to markets and (ii) allowing improved delivery of essential basic services and contribute to support resilience of remote communities.

3. Assessment of Outcomes

3.1 Relevance of Objectives, Design and Implementation

47. **Relevance of PDO.** The PDO was highly relevant and consistent with the key development priorities in Haiti—as evidenced by the GoH’s development framework and the Bank’s ISN at appraisal (See Section 1.1). Various disasters (hurricanes, flooding, earthquake) which occurred during project implementation, consistent access, DRM and resilience remained high priorities on Haiti’s development agenda (See Section 2.1 and 2.2). The PDO remained highly relevant over the project’s life, and all subsequent ISNs, Country Assistance Strategy and Country Partnership Strategy maintained reducing Haiti’s vulnerability to disasters and increasing its resilience as a strategic pillar.

48. **Relevance of Design & Implementation strategy.** The design was highly relevant and the implementation strategy was highly responsive to emerging needs. Infrastructure investments restored access following the FGHI and other unforeseen emergencies and the NDRMS was strengthened by creating and operationalizing VRUs among other activities. Although the project was prepared as an emergency project, the project design addressed fundamental institutional and technical weaknesses of the Government that were increasing its vulnerability to disasters. Based on data available from the independent evaluation, the improvement in technical and institutional capacities has increased knowledge, capacity and alignment of investments with sectors strategies to ensure that limited resources are increasingly focused on priorities. Building on this integrated approach, the project managed to create the enabling environment for stronger donor involvement and coordination among key stakeholders (See Section 2.2). The close linking of PROReV and the subsequent large scale DRMRP and strong coordination with other donor activities has built synergies and maximized the impact of the limited resources under the project. These factors are critical to secure continued external financial support necessary for the continued development of the Transport and DRM sectors in Haiti. Given the above, the ICR rates the relevance of the project design as High.

3.2 Achievement of Project Development Objectives

49. The assessment of PDO outcomes takes into consideration that two PDO indicators (#3 and #4) were revised and subsequently dropped and one was added over the course of the project restructurings. These changes occurred in response to the 2010 earthquake, to adapt the project to the emergency context and altered government priorities in the wake of the crisis and subsequent natural disasters, but did not affect the overall achievement of the PDO.

PDO (i) assist the Recipient in restoring access on selected critical points of its transport system following the FGHI Emergency:

50. The project achieved the objective of assisting the country in restoring access on selected critical points of its transport system following the FGHI Emergency to a high extent based on the evidence below.

51. Montrouis and Chalon bridges, and *La Theme* overpasses were operational within two months following Hurricane Ike, among other urgent works, minimizing disruption to access on two major roads connecting the northern (RN1) and the southern (RN2) parts of the country. Damaged and weakened bridges and road sections were repaired with 20 interventions at critical spots, stabilizing access in four departments, resulting in approximately two million direct and indirect beneficiaries. (Intermediate indicators #1, #2, #3).

52. **PDO indicator #2** was achieved with the creation of a fully staffed Bridge Management Unit under this Component: 12 engineers were trained and are employed at MTPTC. (Intermediate Outcome Indicator #7). This unit has completed the country's first comprehensive national bridge inventory (Intermediate Outcome Indicator #6) and diagnosis on maintenance needs. From April 2011 to date, the Unit cataloged 3455 bridges, box culverts, and hydraulic crossings, including 174 large bridges.

53. **The PDO Indicator #5** was 100% achieved and contributed to stabilized access within four departments, resulting in approximately 2 million direct and indirect beneficiaries. The bridges, protection, critical spot intervention and sections of the road were all realized and delivered for final acceptance, resulting in the rehabilitation of 200 km of road (repaired damaged or weakened bridges and road sections with 20 interventions on critical spots and mitigation works (Intermediate Outcome Indicator #4). This result was fully achieved by contracting local SMEs, thereby promoting the growth and development of small and medium civil work enterprises. Some of the scheduled activities were canceled due to cost overruns but were completed under other projects (See Table 2).

PDO (ii) reduce vulnerability to national disasters by strengthening its NDRMS:

54. Project achievements regarding part (ii) of the PDO, reduction of vulnerability to national disasters by strengthening its NDRMS, were substantial and considerable, despite the delays resulting from the 2010 earthquake and compounded adverse natural events. State capacities to respond to emergencies and institutional capacity to reduce vulnerability were improved through the creation of a CRV within CIAT, both the CRV and Bridge Management Unit within MTPTC, the collection and analysis of data, and risk assessment studies and associated Risk Management Plans. The project has substantially contributed to strengthen the NDRMS and to reduce vulnerability to national disasters.

55. **PDO Indicator #1** targeting the implementation of two operational and sustainable CRVs was achieved. The units and tools developed further contribute to NDRMS's capacity (including SPGRD) in DRM and ability to intervene in cases of crisis. A CRV within MTPTC was established, staffed and equipped with trained engineers. An operational manual (included M&E tools) was also developed. The director of the unit is also integrated to the NDRMS as a representative of the MTPTC. (Intermediate Outcome Indicator #7). A Multi-sectoral CRV was also established, tasked with mainstreaming vulnerability reduction in strategic land planning policies. (Intermediate Outcome Indicator #11). Transversal development strategies and instruments were successfully developed by

CIAT, including key strategic documents regarding the understanding of risks and the first multi hazard atlas and guidelines for watershed management and urban resilience (Intermediate Outcome Indicator # 12).

3.3 Efficiency

56. At project close, May 31, 2015, all activities were completed, and the project disbursed a total of 99.98 percent over its lifetime.

57. **Unit costs of roads and bridges.** The choice to prioritize use of local SMEs vs. large firm to perform rehabilitation works and spot improvements was quite efficient in term of costs (see Table 3 below) for the same quality standard. UCE developed suitable procurement rules to contract SMEs. This process successfully contributed to local employment generation in that the bulk of contracts for Component 2 were awarded to local SMEs.

Table 3: Comparison of Unit Costs of Large vs. Small and Medium Enterprises

Type of contractors	Meshed stone works ('gabions') (m3)	Landfill (m3)	Reinforced concrete (m3)	Masonry (m3)	Concrete gutters (linear meter)
	US Dollars				
Large	138	35	350	143	136
SME	95	7.6	275	85	125

Source: UCE / Technical Department

58. **Administrative costs.** The administrative costs incurred by UCE and BMPAD for the overall project administration and management were reasonable compared to the amount of investment on the ground. This is primarily attributable to the scale up of activities implemented by UCE relating to post-earthquake rehabilitation and reconstruction: UCE increased its workload from one Bank-financed project to three Bank-financed projects and three IaDB-financed projects.

59. **Implementation delays.** There were significant implementation delays for close to three years of the lifetime of the project from 2010 to 2013, as a result of the 2010 earthquake and other adverse natural events (Hurricane Sandy 2012). As a result, the project saw construction delays and delays in conducting institutional studies and capacity building foreseen under Components 3 and 4. *La Theme* Bridge construction was completed in late 2014, and most of the activities under Component 3 and 4 were completed in 2014 and 2015. The 2010 earthquake understandably diverted the attention of the GoH and of the PIUs toward emergency recovery activities, and did not foster a conducive environment for long term planning, policy development, and institutional strengthening needed for reform.

60. **Economic Evaluation:** No economic evaluation was prepared during project design. The nature of the project component did not allow for the carrying out of a cost-

benefit analysis, and a cost-effectiveness analysis was instead performed, which demonstrated that the costs of the project activities were reasonable.

61. Based on the delays outlined above, **Efficiency is considered Modest.**

3.4 Justification of Overall Outcome Rating

62. The assessment made in preceding sections justify the overall outcome rating as **Moderately Satisfactory:**

Relevance: The design and implementation of the PDO were and remained relevant despite the institutional disruptions caused by the 2010 earthquake. The relevance is rated **High**.

Efficacy: The PDO (i) is rated **High** given that the targets were met. The PDO (ii) shows a **Substantial** level of achievement; however the institutional impact and anchoring of the units created to promote integration of vulnerability reduction in sectoral policies still requires improvement.

Efficiency: The project was generally implemented in a cost-effective way regarding unit costs and proportion of costs used for administration, management and technical support vs. investment costs on the ground. Nevertheless, considerable delays attenuated project performance. The efficiency is rated **Modest**.

3.5 Overarching Themes, Other Outcomes and Impacts

a) Poverty Impacts, Gender Aspects, and Social Development

63. **Poverty Impact.** The strategic importance of an improved transport sector and disaster risk management for economic growth is well recognized by the GoH, and both of these were presented as key elements of the Poverty Reduction Strategy Paper (November 2007). The project itself was *pro-poor* for several reasons: (i) the poor are usually the most vulnerable in a natural disaster; (ii) areas that were the most badly affected by FGHI were targeted; and (iii) risk mitigation activities undertaken address the poor's vulnerability reduction needs. Road rehabilitation and spot improvement demonstrably served their assigned purpose, including enabling the population not only to access markets but also providing access to basic social services.

64. **Gender Aspects.** Due to the emergency context of the project preparation, PROReV aimed to reestablish access for both men and women after a major adverse natural event. In addition, CIAT led the review and preparation of studies aimed at new investment models and an integrated gender equality approach. The strategic work led by CIAT on greater rural connectivity and markets have produced the first gender based approach for roads ("*La route à deux vitesses*" and Haiti Tomorrow), accounting for the specific needs of women in using roads, intermediary public transportation, and markets.

65. **Social Development.** The damage caused by FGHI had social impacts on a large number of local communities with more than 2.5 million people across four Departments with no or limited access following the storms. The project immediately re-established connections on three critical axes (RN1, RN7, and RN2), through the financing of provisionary works which connect the capital to two Departments (North and South). The RAI is a tool which will allow for the development of investment within the rural zones. Small labor-intensive works were carried out under Component 2 and have contributed to improve the road infrastructure resiliency and enhanced local economic opportunities.

(c) Institutional Change/Strengthening

66. PROReV earmarked substantial resources to strengthen institutions such as MTPTC technical, statistical and road maintenance departments, UCE, CIAT and BMPAD.

67. The establishment of a Bridge Management Unit and its integration within the MTPTC demonstrates progress toward improved asset management and will specifically increase attention to the maintenance of critical and costly investments, such as bridges.

68. The establishment of two CRVs accounted for the needs of each institution, and enhanced NRDMS' capacity to prepare strategically for adverse natural events based on informed and recent risk information. The CRVs have also supported the strengthening of CIAT in their inter-ministerial coordination function to integrate vulnerability upstream in sectoral and planning policies.

(d) Other Unintended Outcomes and Impacts (positive or negative)

69. PROReV financed the operation of, and technical assistance to, CIAT whose work, post-earthquake has allowed for strategic orientation and new territorial development planning. Some studies led by CIAT have contributed to new/other projects, including the strategic document Haiti Tomorrow, which served as the foundation for the CARDP (P133352). Though many of these studies have not been widely disseminated, the strengthened capacity of CIAT is without question, and its data has influenced transparency in decision-making, which would go even further with the full dissemination of its reports. This is also true of the completion of the RAI under Component 3. As such, a dialogue on next steps with CIAT would be critical, and the inclusion of financing of some key activities under the DRMRP project could close this loop.

3.6 Summary of Findings of Beneficiary Survey and/or Stakeholder Workshops

N/A

4. Assessment of Risk to Development Outcome

Rating: Substantial

70. The project has had major achievements and reached its objectives in terms of access to select critical points of the Haitian transportation system under road rehabilitation

(Components 1 and 2), and in reinforcing resilience vulnerability by strengthening the Haitian National Disaster Risk Management System (Components 3 and 4).

71. The survey conducted within the framework of the RAI revealed that 50 percent of the country remains isolated and that two-thirds of rural Haitians, an estimated 3.2 million people, live in poorly connected areas. This MTPTC survey, now endorsed by the MEF, has allowed the GoH to announce the creation of a budget line for FY 2015-2016, which has dedicated investments to improve connectivity in rural areas. To be sustainable, this measure will be accompanied by the funding of a genuine policy and tool for monitoring and data collection on the state of road assets in real time.

72. Another achievement is the promotion of local civil works Small & Medium Enterprises (SME). Inexpensive and flexible, they increased infrastructure resilience; they saved the cost of fixed assets on small contracts, while executing the mandate on time and with the expected quality. Regular maintenance of the road network should maintain this dynamic. It should be noted that maintenance remains underfunded, and that the FER is still suffering from a lack of resources, which only allows financing for 50 percent of the eligible network.

73. The multitude of data from RAI's activities, bridge inventory, works; the definition of a strategy and the creation of a plan for crisis management, prevention and reduction of vulnerability; the creation of a CRV and a Bridge Management Unit, the completion of Risk Management Plans (PPRs) for the cities of Cap-Haitien and Les Cayes reflect an increasing awareness of a GoH management plan for risks and vulnerability. The finalization the work that can be disseminated through the digital library funded under the Bank-financed Infrastructure and Institutions Emergency Recovery Project (IIERP – P120895) is critical. These positive results, however, are fragile and their durability is directly linked to the capacity of the country to maintain gains and not lose the fruit of its investments, including both physical investments and the structures and mechanisms implemented to support those investments.

74. On a positive note, a national vulnerability study will be completed under DRMRP, and this study is expected to contribute to major decisions concerning the maintenance framework. Additionally, both the CARDP and DRMRP have built on PROReV's experience in reducing vulnerability, spot improvement and resilient infrastructure.

75. The Municipal Development and Urban Resilience Project (MDRUP – P155201), currently under preparation, also draws on the experience of PROReV including practices related to mitigation and work aiming to reduce the vulnerability of investments.

76. **The risk to the development outcome is considered substantial.**

5. Assessment of Bank and Borrower Performance

5.1 Bank Performance

(a) Bank Performance in Ensuring Quality at Entry

Rating: Satisfactory

77. The project was prepared in the aftermath of the FGHI major disaster. PROReV's design was based on the Bank's longstanding experience with emergency contexts and in compliance with the priorities of the GoH. The design also benefitted from dialogue and outreach for synergies between other donors in a manner that maximizes the impacts and use of the funds. The Project design took into account for and leveraged existing mechanisms developed under the Bank-funded projects PTDT (P095523) and ERDMP (P090150) and capitalized on the on-going dialogue. The disaster risk management and transport teams have collaborated very effectively across two sectoral units.

78. Based on the above, Bank performance in ensuring quality at entry is rated **Satisfactory**.

(b) Quality of Supervision

Rating: Satisfactory

79. Between 2008 and 2015, the Bank has conducted 14 formal supervisory missions. These missions covered six month periods for reviewing the technical aspects of financial institutions, as well as the aspects relevant to procurement and social and environmental safeguards. From 2008 and 2010, close technical supervision missions provided extensive technical guidance to support the government and the PIUs in order to validate the technical design. From 2011 onward, PROReV benefitted from the presence of a senior infrastructure specialist, which allowed for the establishment of a regular dialogue with the GoH, generally with regards to the advancement of the project, but also addressing the more transversal themes of: maintenance, planning and prioritization of investments. The close supervision and day to-day support by the field-based team allowed for effective implementation and disbursement. Bottlenecks and challenges were flagged and addressed in a timely manner.

80. Supervision missions also served as the basis to prepare the three project Restructurings, enabling responsiveness and adequate flexibility on the part of the Bank to adapt to unforeseen circumstances, successive emergency situations and related complex institutional contexts. Both the 2011 and 2013 Restructurings, which occurred during the mid-way points of project implementation, helped capture project progress.

81. Based on the above, Bank supervision is assessed as **Satisfactory**.

(c) Justification of Rating for Overall Bank Performance

Rating: Satisfactory

82. Overall, the Bank has measured its involvement and the nature of its support as required by the expectations and difficulties of beneficiaries and stakeholders. The availability of permanent resources within Port-au-Prince, the regularity of the supervisory missions, and the efforts made to increase dialogue are all the elements that contributed to the reinforcing the partnership between the Bank and the MTPTC. Aligning itself to such challenging context, the bank team demonstrated great flexibility and involvement to the client needs delivering answers and solutions quickly.

83. On account of all of the above considerations, the Bank overall performance for PROReV is rated **Satisfactory**.

5.2 Borrower Performance

(a) Government Performance

Rating: Satisfactory

84. PROReV was largely driven by the GoH at both the design and the implementation stages. The GoH proved responsive and capable of taking full project ownership demonstrated through little to no typical political pressure was required regarding the emergency context. Although project implementation was adversely affected by the earthquake under Components 3 and 4, the government demonstrated notable resilience in responding to some of the emergency needs of the country relating to the earthquake through the channels of the project.

(b) Implementing Agency or Agencies Performance

Rating: Moderately Satisfactory

85. The UCE served as lead agency responsible for the overall project coordination and responsible for Components 1, 2 and 3, as well as project evaluation. The BMPAD was responsible of the fiduciary aspects under Component 4, and CIAT was in charge of the implementation of Component 4. UCE was responsible for the following specific project implementation tasks: (i) procurement and financial management; (ii) contract management, including road engineering and construction contracts and consulting contracts; (iii) day-to-day field supervision; and (iv) monitoring and evaluation. In addition, UCE was responsible for preparing quarterly reports, bi-annual audits and ad hoc impact evaluations.

86. CIAT was responsible for the consulting contracts management and technical supervision of activities completed under Component 4. BMPAD was in charge of the fiduciary aspect under this component, while CIAT had the responsibility for M&E of Component 4. While UCE/BMPAD's management performance was weak at the onset, it improved as the project implementation unfolded, guided by supervisory recommendations. Procurement reviews were satisfactory but financial management was concluded to be moderately satisfactory due to insufficient budgetary planning. Financial audits were prepared by qualified external auditors. For M&E through the MIS, the UCE/BMPAD did not introduce an operating MIS until very late in the project; as a result M&E was generally

of poor quality. The progress reports were often completed late, especially for the Component 4.

87. UCE, BMPAD and CIAT performed all the above tasks separately at their own level with insufficient coordination between themselves, which presented major challenges resulting in no aggregate reporting for the project as a whole.

(c) Justification of Rating for Overall Borrower Performance

Rating: Moderately Satisfactory

88. The two Implementing Agencies have performed in a very challenging environment, marked by several disaster events and political instability. However, considering the performance under Components 3 and 4, the M&E, fiduciary and safeguards, the overall borrower's performance is rated as Moderately Satisfactory.

6. Lessons Learned

89. Based on this implementation course where both flexibility and discipline were required, PROReV offers an array of lessons about general project implementation, works execution, and capacity building in a continual emergency context. These lessons are summarized below.

(a) General lessons

90. Strong cooperation between development organizations such as the Bank, AFD and the EU can be a factor of success especially in the context where leadership and donor coordination by the Government is weak. PROReV illustrated how cooperation under a win-win framework emphasized the adding up of the comparative advantages of these entities, especially in an emergency context.

91. The preparation of PROReV also allowed for the integration of complementary research within an organized dialogue with the government responding to the needs of the Haitian context in a coherent and coordinated manner. It was worthwhile and successful in a context where resources were limited and quick reactions were necessary. The consultation resulted in a suitable distribution of roles between the three donors with the Bank taking the lead for the detailed engineering studies, the works regarding a major spot intervention and the rehabilitation of the main bridges.

92. As part of project design, the provision of resources to address emergency issues is required in post-conflict and disaster-prone countries. While this project was developed to respond to the urgency generated by FGHI of 2008, no provision was made to respond to the emergency resulting from the 2010 earthquake and subsequent hurricanes. A limited budget, pre-defined activities and the absence of a budget provisioned to respond to emergencies were all significant limitations. It would have been easier to be fully prepared right from project design in an attempt to anticipate another emergency. In this sense, the creation of a specific component to be triggered depending on needs would have been helpful especially since the earthquake happened less than 2 years after the date of

effectiveness. While few could have predicted the scale of the emergency following the earthquake, as a disaster vulnerable country, adverse natural events with significant impacts during the life of the project could be anticipated upstream. This lesson has already been heeded in the Bank's recently approved and upcoming projects for Haiti that all include such an emergency component that can be triggered depending on prevailing emergency circumstances.

93. The evaluation of PROReV brought to light the difficulties of coordination and the monitoring and evaluation within a project involving different entities. In reality, the Haitian context does not lend itself easily to interaction between distinct institutions: the deadlines for contracting and implementation are extended and implementation suffers. This observation was already made in the framework of the implementation of PTDT. The experience of PROReV reinforces this observation, particularly with regards to CIAT BMPAD dissociating the implementation of fiduciary management.

(b) Lessons concerning transport projects

94. Stabilized access and improved all weather connectivity confirm conventional wisdom based on international evidence: improved access facilitate access to economic opportunities, but also school attendance, visits to health center and general access to basic social services. Investments and tools developed under PROReV advocate for investing in rural roads as part of a growth and poverty/vulnerability reduction strategy in rural areas.

95. A work strategy focused on SMEs for transport infrastructure can act as a catalyst for developing private sector activities and generating employment. Under PROReV Components 1 and 2, the inclusion of SMEs served the need to perform spot improvement for a widely-scattered infrastructure. In addition to being cost-effective, the SME program had spillover effects on local development initiatives, creating employment opportunities for the local populations involved.

96. On the institutional level, the establishment of a Bridge Management Unit and its integration within the MTPTC highlighted the importance of road and bridge maintenance. PROReV served as a reminder that maintenance needs must be coordinated for both the availability of resources (FER) but also in terms of information about the status of the network (inventory, vulnerability study) and operationalization of planning tools.

(c) Lessons concerning institutional capacity in DRM and resiliency

97. PROReV also highlighted the difficulty of carrying out reforms in such a volatile context such as Haiti, where disaster and political vulnerabilities loom. The difficulties in the reform of SNGRD and the limited capacity of MPCE in the wake of the earthquake emphasized the need to work on two levels: (i) the strengthening of sectoral ministries in the collection and management of information with regards to the management of crises and disasters; and (ii) inter-ministerial coordination for decision making and planning of mitigation measures (prevention, resilience).

98. Improved information collection and management is important to ensure adequate disaster risk management programs and policies. Haiti continues to face difficulties in the collection and archiving of disaster-risk information and in generating an improved understanding of their vulnerabilities and risk. To improve resilience and better coordination and planning in vulnerability reduction activities, the enhancement of information management at both national and local level is critical. There is a strong need to move towards a more integrated approach.

7. Comments on Issues Raised by Borrower/Implementing Agencies/Partners

(a) Borrower/implementing agencies

99. The ICR report was shared and discussed with the MTPTC-UCE who accepts the rating of **Moderately Satisfactory** for the outcome and agrees with the findings of the ICR.

100. MTPTC-UCE highlighted the ways in which the Project managed to achieve its objectives, despite the unprecedented effects and disruptions which resulted from the 2010 earthquake and compounded adverse natural events.

101. The lessons learned identified in the draft ICR report have been endorsed by MTPTC-UCE, which is already taking follow-up action with MEF and associated institutions and partners to apply these lessons in their on-going and future operations.

(b) Co-financiers

N/A

(c) Other partners and stakeholders

N/A

Annex 1. Project Costs and Financing

(a) Project Cost by Component (in USD Million equivalent)

	Estimated				Disbursed		
Components	Appraisal Estimate (USD millions)	Revised (2011)	Revised (2013)	Revised (2014)	Actual / Latest Estimate (USD millions)*	% Appraisal	% Revised 2014
Component 1: Implementing a Program of Bridge Reconstruction	5.05	7,165,000	7,900,597	8,030,000	6,474,068.06	128%	81%
Component 2: Improving the Resilience of Transport Infrastructure	4.95	5,350,000	4,643,139	5,445,000	4,191,140.18	85%	77%
Sub-component 2.1: Vulnerability reduction and repair works		4,850,000	4,643,139	5,445,000	4,191,140.18		
Sub-component 2.2: Community-based routine maintenance activities		500000	0	0	0		
Component 3: Strengthening Transport System Asset Management	1.17	2,585,000	2,556,264	2,910,000	1,949,317.56	167%	67%
Component 4: Strengthening of NDRMS	3.60	4,900,000	4,900,000	3,615,000	3,373,578.25	94%	93%
Sub-component 4.1: (formerly): Creation of a disaster recovery and reconstruction coordination unit with the MPCE	1,180,000	1,685,000	0	0			
Sub-component 4.1: Provision of Technical Advisory Services to NDRMS	2,220,000	1,305,000	3,017,000	1,015,000			
Sub-component 4.2: Technical Assistance to Inter-Ministerial Committee for Land-Use Planning	1,500,000	1,910,000	1,910,000	2,600,000			
Unallocated	0.40						
Total Baseline Cost	0.00					0.00	
Physical Contingencies	0.00					0.00	0.00
Price Contingencies	0.00					0.00	0.00
Total Project Costs	0.00					0.00	
Front-end fee PPF	4.83					4.83	100
Front-end fee IBRD	0.00					0.00	.00
Total Financing Required	0.00					0.00	

*Source client connection November 30, 2015

(b) Financing

Source of Funds	Type of Co-financing	Appraisal Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
Borrower		0.00	0.00	.00
IDA Grant		20.00	19.42	99.98%

Table 4: Project Component and Detailed IDA Allocation Revisions

<i>Components/Activities</i>	<i>Project Costs (US\$m.)</i>			
<i>Original</i>	<i>Initial Allocation</i>	<i>2011 Restructured Allocation</i>	<i>2013 Restructured Allocation</i>	<i>2014 Restructured Allocation</i>
Component 1: Implementing a Program of Bridge Reconstruction	7,165,000	7,165,000	7,900,597	8,030,000
Component 2: Improving the Resilience of Transport Infrastructure	4,950,000	5,350,000	4,643,139	5,445,000
• Sub-component 2.1: Vulnerability reduction and repair works	4,450,000	4,850,000	4,643,139	5,445,000
• Sub-component 2.2: Community-based routine maintenance activities	500,000	500,000	0	0
Component 3: Strengthening Transport System Asset Management	2,585,000	2,585,000	2,556,264	2,910,000
Component 4: Strengthening of NDRMS	4,900,000	4,900,000	4,900,000	3,615,000
• Sub-component 4.1 (formerly): Creation of a disaster recovery and reconstruction coordination unit with the MPCE	1,180,000	1,685,000	0	0
• Sub-component 4.1: Provision of Technical Advisory Services to NDRMS	2,220,000	1,305,000	3,017,000	1,015,000
• Sub-component 4.2: Technical Assistance to Inter-Ministerial Committee for Land-Use Planning	1,500,000	1,910,000	1,910,000	2,600,000
Unallocated	400,000	0	0	0
Total	20,000,000	20,000,000	20,000,000	20,000,000

Annex 2. Outputs by Component

Component 1: Implementing a Program of Bridge Reconstruction

1. Works undertaken under Component 1 were realized efficiently, completely and according to their deadlines. Component 1 allowed for the realization of multiple urgent works which contributed to the re-establishment of access to the Haitian road networks.
2. The Montrouis, Chalon and La Theme fords and overpasses were operational within two months following Hurricane Ike, allowing minimal disruption to access on two major roads connecting the northern (RN1) and the southern (RN2) parts of the country, restoring important economic flow and traffic. (Intermediate Outcome Indicator #1) This result was achieved by contracting local SMEs, promoting the growth and development of small and medium civil work enterprises.
3. The completion of the *La Theme* Bridge was critical to restore access in Mirebalais. It also facilitated access to the primary and most equipped hospital in the country, and to a major regional road along the fertile valley of Artibonite, supporting the rice and mango productions (Intermediate Outcome Indicator #2) Ten emergency bridges were purchased (Intermediate Outcome Indicator #3). MTPTC staff were trained on the installation of emergency bridges and seven of the ten emergency bridges purchased were used during the project life to restore access on roads made inaccessible following adverse natural events (Hurricane Thomas 2010, Sandy 2012). The outcomes of this Component were tangible and timely.

Component 2: Improving the Resilience of Transport Infrastructure

4. Component 2 repaired damaged or weakened bridges and road sections with 17 interventions on critical spots and mitigation works (Intermediate Outcome Indicator #4). Component 2 contributed to stabilized access within four departments, resulting in approximately 2 million direct and indirect beneficiaries. The bridges, protection, critical spot intervention and sections of the road were all realized and delivered for final acceptance, resulting in the rehabilitation of 200 km of road (PDO Indicator #3). This result was fully achieved by contracting local SMEs, thereby promoting the growth and development of small and medium civil work enterprises. The initial target of section repairs was revised under the 2011 Restructuring in light of the necessary cost reallocation at the time. Cost savings during project execution allowed for the reallocation of funds from slow disbursing Component 4 to this component increasing in the number of critical spot interventions to a level close to the initial target. The proposed rating for the outcomes of this component is Satisfactory.

Component 3: Strengthening Transport System Asset Management

5. **PDO indicator #2** was also achieved with the creation of a fully staffed Bridge Management Unit under this Component: 12 engineers were trained and are employed at

MTPTC. (Intermediate Outcome Indicator # 7). This unit has completed the country's first comprehensive national bridge inventory (Intermediate Outcome Indicator # 5) and diagnosis on maintenance needs. From April 2011 to date, the Unit cataloged 3455 bridges, box culverts, and hydraulic crossings, including 174 large bridges. A crisis management and vulnerability reduction unit (DRM unit) was established, staffed and equipped within MTPTC with trained engineers. An operational manual (included M&E tools) was also developed. The director of the unit is also integrated to the National Disaster Risk Management System as a representative of the MTPTC. (Intermediate Outcome Indicator # 6). The completion of the RAI allowed for the characterization of the connectivity and the isolation of half the country. Only 39 percent of the rural population in Haiti has access to an all-weather road within two kilometers. The results of the RAI have proven to be extremely useful, timely and resulted in MEF including measures in the budget to enhance connectivity. These units and tools developed further contribute to MTPTC's capacity in asset management and ability to intervene in cases of crisis.

Component 4: Strengthening of NDRMS

6. **PDO Indicator #1** targeting the implementation of two operational and sustainable Disaster Risk Management Units was achieved. These units were adequately equipped and well positioned to account for related institutions and responded to the specific needs of both CIAT and MTPTC. Transversal development strategies and instruments were successfully developed by CIAT, including key strategic documents regarding the understanding of risks and the first multi hazard atlas and guidelines for watershed management and urban resilience. A Multi-sectoral Vulnerability Reduction Unit (CRV) was also established, tasked with mainstreaming vulnerability reduction in strategic land planning policies (Intermediate Outcome Indicator # 8 and # 9).

Table 5: Outputs by Component

Components 1 and 2		
Type of Work		Réception
1	Implementing a Program of Bridge Reconstruction	
	Ford construction Chalon	April 2009
	Ford construction Montrouis	April 2009
	Ford construction Mirebalais	April 2009
	Ford construction et protection works Rivière Gauche	2010
	Retaining Wall Construction morne Saint Georges, RN2	2011
	Deck Destruction and Removal La Thème Bridge, Mirebalais	October 2010
	Reconstruction La Thème Bridge (Mirebalais)	March 2015
	Rehabilitation Ford construction rivière Gauche	January 2012
	Protection et Reparation Works, (box Culvert) Deuxième plaine, RN2	December 2014
	Protection and reconstruction works (nozzle), Saint Louis du Sud, RN2 –	March 2015
	Protection et Reparation Works (nozzle), Saint Louis du Sud, RN2	December 2014
	Protection et Reparation Works (2 boxes culvert), Saint Louis du Sud	December 2014
	Protection et Reparation Works (nozzle), Saint Louis du Sud, RN2	December 2014
	Construction Chalon Bridge	PRGRD (complete)
	Estime Dumarsais Bridges	PRGRD
	Voldroque and Roseaux	PRGRD & GoH
2	Improving the Resilience of Transport Infrastructure	
	Protection works (gabions), Cavaillon Bridge, RN2	January 2011
	Reparation works (Abutments) La Gosseline, RN4	January 2011
	Works protection, Pont Tabarre, RN8	February 2011
	Reparation work (Box culvert), Bonnet Bridge Croix des Bouquets, RN8	November 2010
	Reparation works (Abutments), Croix des Missions bridge, RN1	March 2013
	Reparation and protection works, Piers, La Ravine du Sud Bridge, Cayes	November 2011
	Construction (boxes culvert), Gelée, Cayes	January 2012
	Protection works (Retaining Wall pont, gabions) Boumier, RN2	March 2011
	Protection works (abutments) Grande Rivière de Jacmel Bridge, RN4	March 2010
	Réparation work (Drainage system) pont Torbeck, RD25	March 2010
	Rehabilitation works Jacmel, RN4 (UNOPS)	November 2010
	Drainage RN2/Port au Prince	June 2011
	Protection works Bretelle river Bridge, commune Cabaret, RN1	September 2012
	Protection works, Bridge Route de Léon, Jérémie	November 2011
	Reparation works, Zanglais d'Aquin, commune Saint Louis du Sud, RN2	November 2011
	Construction Box culvert, Mapang, route Cavaillon – Baradères	July 2011
	Protection works RN2, zone Bellevue, commune Aquin, RN2	April 2015
	Construction works (ford) à Labattre, Chantal – Arniquet, Sud	April 2015
	Protection works Solon, RN2	April 2015
	Construction works (for), Vieux Bourg d'Aquin, village La Ferme	April 2015

Component 3

Outputs	Description
DRM CRV unit, created staffed and equipped with competent resources and tool within the MTPTC	Operational Manual Action and work plans Capacity building plan MTPTC and SPGRD staff trained
Bridge management Unit created staffed and equipped with competent resources and tool within the MTPTC	The inventory of existing bridges is completed 3455 hydraulic crossings including 174 bridges evaluated. 12 young Engineers of MTPTC trained

Completion of the RAI establishing key numbers and information on rural connectivity for Haiti	46 Members of MTPTC trained 44 maps produced 10 Departmental direction equipped with GPS and computer
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Component 4

Outputs
Transversal DRM CRV unit, created staffed and equipped with competent resources and tools within CIAT
Dissemination activities (Work shop; Publication; conference)
Completion of an Atlas of Natural Risks
Protected areas study
Elaboration and dissemination of urban national Forum proceedings
Compilation of existed laws and legal texts on urban planning
Drainage and Risk Management Plans (PPR) for the city of Les Cayes
Flood mapping and development of flood risk management plans for Cap Haitien
<i>Corridor Nord Nord-est Master Plan</i>

Table 6: Revisions to Results Framework

PDO			
<i>Original (PAD)</i>	<i>2011 Restructuring</i>	<i>2013 Restructuring</i>	<i>2014 Restructuring</i>
The project's development objective is to i) restore access on selected critical points of the Haitian transport system, and ii) support vulnerability reduction by strengthening the Haitian National Disaster Risk Management System.	No change.	No change.	No change.
PDO indicators			
<i>Original (PAD)</i>		<i>Proposed Changes</i>	
Disaster Risk Management Units within key ministries are operational and sustainable, with adequate resources and staffing	Revised. Disaster Risk Management Units within key ministries are operational and sustainable, with adequate resources and staffing before the end of 2013	Revised. Disaster Risk Management Units within key ministries are operational and sustainable, with adequate instruments/tools and staffing before the end of the project.	No change.
MTPTC bridge management unit is operational and sustainable, with adequate resources and staffing	No change.	No change.	No change.
MPCE vulnerability reduction unit is operational and sustainable	No change.	Dropped. The Vulnerability Reduction Unit (CRV - <i>Cellule de Réduction de la Vulnérabilité</i>) in the MPCE was discontinued as of November 2011 due to changes in the national institutional framework. Some of its responsibilities related to the integration of DRM in territorial planning were transferred to CIAT.	N/A
Permanent Secretariat of Disaster Risk Management (SPGRD) unit is reinforced, operational and sustainable	Revised. National Disaster Risk Management System Policy and framework assessed and strengthened before the end of 2013.	Dropped. The impact of the 2010 earthquake has not created a conducive environment for a policy reform on DRM.	N/A
Roads rehabilitated (km), Non-Rural roads	N/A	New. Including new Core Indicator to monitor progress.	No change.

Intermediate Results indicators			
Original (PAD)		Proposed Changes	
Component 1: Implementing a Program of Bridge Reconstruction			
Number of emergency fords and overpasses built in the two months following	No change.	No change.	No change.
Number of bridges rebuilt with satisfactory technical standards	No change.	No change.	No change.
10 emergency bridges purchased	No change.	No change.	No change.
Component 2: Improving the resilience of transport infrastructure			
Number of bridges and road sections that have been repaired or consolidated with satisfactory technical standards	No change.	No change.	Revised. Change in end target from 8 spots to 11.
Number of community-based initiatives performing routine maintenance with satisfactory technical standards	No change.	Dropped. Sub-component linked to this indicator has been dropped.	N/A
Component 3: <u>Strengthening Transport System Asset Management</u>			
Bridge inventory completed and up to date	No change.	No change.	No change.
Constitution of an effective crisis management and vulnerability reduction unit in MTPTC	No change.	No change.	No change.
Constitution of a bridge management unit in MTPTC	No change.	No change.	No change.
Component 4: Strengthening of NDRMS			
Establishment of Disaster Recovery and Reconstruction Planning Unit within MPCE	Revised. Vulnerability Reduction Unit established within MPCE and a National Framework for Vulnerability Reduction created, in place before the end of 2012 and integrated into sectoral policies and programs before the end of 2013.	Dropped. : The Vulnerability Reduction Unit (CRV) in MPCE was transferred to CIAT as of Nov. 2011 due to changes in the national institutional framework.	N/A
Presentation of Disaster Recovery and Reconstruction Program	Revised. Timely presentation of Disaster Recovery and Reconstruction Program(s) are submitted and coordinated every semester and yearly by all stakeholders from second semester of 2011.	Dropped. Dedicated PM's office installed after 2010 Earthquake has been discontinued.	N/A

Number of Crisis Management and Vulnerability Reduction Units created within line ministries and within their departmental directorates (where applicable)	Revised. Number of Emergency Management and Vulnerability Reduction Units (CRVs) created/reinforced and operational within line ministries and within their departmental directorates (where applicable) before the end of 2013.	Revised. Number of Emergency Management and Vulnerability Reduction Units (CRVs) created/reinforced and operational within line ministries and within their departmental directorates (where applicable) before the end of the project.	Revised. A Multi-sectoral Vulnerability Reduction Unit (CRV) created and operational within CIAT before the end of the project.
Transversal development strategies developed by CIAT (i.e.: watershed management, urban planning, territorial development and land tenure).	Revised. Transversal development strategies developed by CIAT and CRV (i.e.: watershed management, urban planning, territorial development and land tenure) established and in place before the end of 2013.	Revised. Transversal development strategies and instruments developed by CIAT (i.e.: watershed management, urban planning, territorial development and land tenure) established and in place before the end of the project.	No change.
Disaster risk reduction principles integrated into these transversal strategies:	Revised. Disaster Risk management principals integrated and assessed into these transversal strategies before the end of 2013.	Dropped. Instruments to integrate DRM in territorial planning will be developed as part of the previous indicator.	N/A

Annex 3. Economic and Financial Analysis

N/A

Annex 4. Bank Lending and Implementation Support/Supervision Processes

(a) Task Team members

Names	Title	Unit	Responsibility/ Specialty
Lending			
Solange A. Alliali	Senior Counsel	LEGES	
Louis Boutaud de la Combe	Consultant	LCSUW	
Ross Alexander Gartley	Consultant	LCSUW	
Gregoire Francois Gauthier	Sr Transport. Engr.	LCSTR	
Nicolas Peltier-Thiberge	Senior Infrastructure Economis	AFTTR	
Leila Diana Sarquis Aquino	Temporary	LCSTR	
Fily Sissoko	Lead Financial Management Spec	AFTME	
Jose C. Joaquin Toro Landivar	Senior Disaster Risk Managemen	LCSDU	
Yao Wottor	Senior Procurement Specialist	LCSPT	
Supervision/ICR			
Louis Boutaud de la Combe	Consultant	LCSUW	
Olivier Devoret	Temporary	LCSTR	
Ross Alexander Gartley	Consultant	LCSUW	
Gregoire Francois Gauthier	Sr Transport. Engr.	LCSTR	
Licette M. Moncayo	Program Assistant	LCSTR	
Glenn S. Morgan	Regional Safeguards Adviser	LCSDE	
Fily Sissoko	Lead Financial Management Spec	AFTME	
Yao Wottor	Senior Procurement Specialist	LCSPT	

(b) Staff Time and Cost

Stage of Project Cycle	Staff Time and Cost (Bank Budget Only)	
	No. of staff weeks	USD Thousands (including travel and consultant costs)
Lending		
FY09	16.78	90.4
Total:	16.78	90.4
Supervision/ICR		
FY09	10.66	111.86
FY10	18.08	187.60
FY11	20.40	92.13
FY12	13.83	56.59
FY13	19.66	79.96
FY14	22.19	132.00
FY15	33.85	154.19
FY16	7.43	42.94
Total:	146.10	857.27

Annex 5. Summary of Borrower's ICR and/or Comments on Draft ICR

Summary:

1. Le projet du PROReV a été approuvé le 18 novembre 2008 pour un don de l'IDA de 20 millions d'US\$ qui finance partiellement les coûts relatifs à la reconstruction et à la réparation en urgence d'infrastructures clés détruites ou endommagées suite au passage des quatre cyclones d'août et de septembre 2008. Les travaux ont ainsi été réalisés et prévus dans un contexte d'urgence suite aux passages de ces cyclones. Les objectifs du projet étaient de :

- rétablir l'accès à des endroits importants du système de transport haïtien ;
- soutenir la réduction de la vulnérabilité en renforçant le Système Haïtien de Gestion des Risques et des Désastres et par la création de connaissances et d'expertises au sein de l'appareil gouvernemental.

2. De ce fait, le PROReV a été constitué de quatre composantes dont les trois premières relevaient de L'Unité Centrale d'Exécution (UCE), elle-même partie prenante du MTPTC (Ministère des Travaux Publics, Transport et Communications). La quatrième composante relevait du Comité Interministériel d'Aménagement du Territoire (CIAT), exécutante du Bureau de Monétisation des Programmes d'Aide au Développement (BMPAD). Les quatre composantes ont été établies conjointement par la Banque Mondiale, l'UCE et le CIAT. Ces 4 composantes sont les suivantes:

- Composante 1: Reconstruction de ponts sélectionnés pour rétablir l'accès;
- Composante 2: Amélioration de la résilience des infrastructures de transport;
- Composante 3: Amélioration de la gestion patrimoniale du transport;
- Composante 4: Renforcement du système national haïtien de gestion de risque et des désastres par le renforcement institutionnel et la coordination des différents acteurs et institutions dans la prévention et/ou l'intervention en cas de catastrophes.

3. C'est à partir de ces 4 composantes qu'ont été déterminées les activités à réaliser, tant sur le terrain que dans l'appareil gouvernemental. Ces activités sont mesurées par des indicateurs. Les indicateurs ont été choisis par la Banque Mondiale et le Gouvernement de la République d'Haïti dans le but de mesurer les deux objectifs principaux, dans un contexte de reconstruction d'urgence et d'amélioration de la résilience et de gestion des risques. Une matrice des résultats a été définies afin d'évaluer la réponse à ces indicateurs. Chaque indicateur est évalué par une unité de mesure, avec une valeur cible prévue par année afin d'en effectuer le suivi. Elle se compose d'abord de trois indicateurs principaux qui répondent aux objectifs initiaux:

- Des unités de gestion du risque au sein des ministères clés sont opérationnelles et disposent de ressources suffisantes;
- Une unité de gestion du risque est présente et opérationnelle au sein du MTPTC et dispose de ressources suffisantes ;
- Le nombre de kilomètre de routes réhabilitées.

Ensuite chaque composante correspond aux résultats intermédiaires attendus dans le PROReV. Ils sont également constitués d'indicateurs de mesure par année avec les valeurs cibles. Entre la composition du projet initial et celui évalué dans le cadre de cette étude d'achèvement, le PROReV a connu trois restructurations, modifiant le choix des activités, les indicateurs ou la date de fermeture et effectuant le transfert des budgets d'une composante à l'autre.

4. Aucune problématique particulière n'a été rencontrée à l'étape de la définition des objectifs, indicateurs et concept du PROReV. L'urgence d'intervenir constituait le principal moteur de la création du PROReV. Les mécanismes institutionnels se sont mis en marche dès le moment où la Banque Mondiale a été sollicitée pour une assistance financière suite au passage des 4 cyclones. Les acteurs impliqués au sein des différentes institutions du Gouvernement de la République d'Haïti ont défini les critères du PROReV dans une démarche cohérente, efficace et inclusive avec la Banque Mondiale. De ce fait, la conception du projet a été conduite de façon conjointe par les cadres nationaux et les cadres de la Banque Mondiale. Diverses missions de reconnaissance et de préparation ont été effectuées durant l'année 2008 par l'UCE, assistée du personnel de la Banque Mondiale et de consultants privés. Ces missions ont permis d'évaluer l'ampleur des dégâts en plus de rencontrer les directions régionales et les collectivités locales et, ainsi, de cibler les interventions à prioriser, tant sur l'axe routier de la route Nationale 2, dans la région du sud, qu'à Mirebalais, dans le département du Centre. Des présentations ont été faites aux partenaires nationaux et départementaux afin de confirmer la stratégie de mise en oeuvre, le choix des interventions à prioriser et les problématiques à régler en termes d'accessibilité et de création des connaissances.

5. Les parties prenantes dans le choix des activités à réaliser ont été l'UCE pour les composantes 1-2-3 et le BMPAD pour la composante 4; tel que relaté lors des différentes rencontres, ce processus s'est réalisé de manière tout à fait indépendante et libre d'influence extérieure. Selon les témoignages obtenus, le processus de passation des marchés a suivi de manière rigoureuse les normes décrites dans le manuel d'opération référant aux dispositions en vigueur. Cependant, il importe de souligner que les garanties financières exigées auprès des entrepreneurs ont entraîné un retard dans le début des travaux. En effet, pour plusieurs firmes haïtiennes, l'obtention de ces garanties constitue un obstacle majeur nécessitant un délai important. De plus, le CIAT ne gérant pas directement le budget de la composante 4, de nombreux allers-retours ont dû être effectués auprès du BMPAD pour l'approbation du choix des études et des consultants ainsi que pour le paiement des factures. En effet, puisque le CIAT est la branche exécutante du BMPAD, celle-ci n'a pas le pouvoir de gérer les budgets du PROReV. Ensuite, les délais rencontrés par le CIAT dans la validation et la réception des non-obligations de la Banque Mondiale dans le choix des études ou la proposition d'avenants ont également fait retarder le lancement de certaines études.

6. En ce qui a trait au déroulement des activités du PROReV et à la réalisation des objectifs globaux, en fonction des témoignages recueillis, des visites de terrain effectuées sur les projets échantillonnés et des rencontres tenues avec les bénéficiaires, les travaux prévus aux composantes 1 et 2 ont été réalisés selon les délais impartis. Les ponts, dalots,

ponceaux et sections de routes ont tous été réalisés et livrés pour réception finale à la satisfaction de l'UCE. De manière générale, l'objectif de rétablissement de l'accessibilité du PROReV est atteint.

7. En ce qui a trait à l'objectif de renforcement des capacités, les activités échantillonnées des composantes 3 et 4 démontrent que les formations prévues pour la cellule d'ouvrage d'art, la création d'une cellule transversale de réduction de la vulnérabilité ainsi que les collectes et traitement de données du RAI ont été réalisés, tout comme les études d'aménagement du territoire du CIAT. Ainsi, cet objectif du PROReV est atteint.

8. La matrice des résultats globaux indiquent que le PROReV a réalisé toutes ses activités et a rempli tous ses objectifs, que tant au niveau global qu'intermédiaire pour les composantes 1, 2, 3 et 4.

9. En fonction des informations et témoignages obtenus, le PROReV permet de dégager des bénéfices selon trois horizons : court, moyen et long terme. Les bénéfices à court terme correspondent à favoriser les entreprises haïtiennes dans les travaux de reconstruction et de surveillance, la formation d'ingénieurs, faire des économies réalisées grâce à l'emploi de firmes haïtiennes, effectuer l'inventaire des ouvrages d'art, la création d'une cellule de réduction de la vulnérabilité au MTPTC et au CIAT. Les bénéfices à moyen terme correspondent à avoir développé une méthodologie de collecte des données sur la qualité du réseau routier. De ce fait, plusieurs ingénieurs ont pu être formés à la méthode rigoureuse de collecte, ainsi qu'à la production de cartes avec les outils géomatiques. Une telle expertise peut dépasser le cadre du PROReV (études économiques, commerciales, touristiques, etc.). Le bénéfice à long terme correspond à la réalisation des études sur l'aménagement du territoire, dont les résultats et conclusions permettent de poser des actions sur le long terme afin de réduire la vulnérabilité du pays en cas de catastrophes (reboisement, planification urbanistique, ensemencement, etc.).

Les principaux obstacles à la pérennité du PROReV sont de trois ordres, soit économique, technique et institutionnel. Le premier obstacle, d'ordre économique, correspond au financement récurrent des organismes créés (cellule de crise) suite au PROReV ou retirant un budget de fonctionnement (CIAT). Le second obstacle, d'ordre technique, correspond à la maintenance des infrastructures afin d'en assurer la durée de vie et d'en optimiser le fonctionnement. Le troisième obstacle, d'ordre institutionnel, correspond à la valorisation des études, expertises et informations obtenues grâce au PROReV.

10. De manière générale, les parties prenantes sont satisfaites de leurs relations avec leurs partenaires durant le PROReV, mais soulèvent tout de même les difficultés suivantes:

- Bien que cette situation soit en cours d'amélioration, plusieurs acteurs ont soulevé les délais encourus auprès de la Banque Mondiale pour obtenir leurs non-objectifs;
- Le CIAT n'était pas un agent fiduciaire, elle doit constamment faire des aller-retour auprès du BMPAD pour toute décision financière;
- Les acteurs remarquent que globalement, les réunions ne comportent pas suffisamment d'aide-mémoires;

- Puisque les composantes 1, 2 et 3 étaient de la responsabilité de l'UCE, avec son budget dédié et que la composante 4 était du ressort du BMPAD, il était parfois difficile de connaître l'état d'avancement des partenaires.
11. En ce qui a trait aux leçons apprises dans la réalisation du PROReV, elles correspondent à :
- Le besoin d'une direction commune au sein du Gouvernement Haïtien pouvant effectuer les liens entre le MTPTC et le BMPAD;
 - L'assouplissement des garanties financières demandées pour les entrepreneurs haïtiens;
 - Des ressources supplémentaires pour la passation des marchés et assurer la pérennité des infrastructures et retenir le personnel engagé par le PROReV au CIAT;
 - Des mécanismes de diffusion et de valorisation des études réalisées par le CIAT;
 - L'amélioration des délais des non-objections de la Banque Mondiale;
 - Une harmonisation des taux monétaires entre celle utilisée par la Banque Mondiale (XDR) et celles du Gouvernement de la République d'Haïti (dollar américain et gourdes)

Commentary: transmis par l'UCE/MTPTC

12. L'UCE/MTPTC a pris note que le projet P114292 PROReV est jugé modérément satisfaisante et concorde avec cette évaluation.
13. Bien que documenté dans le rapport, l'UCE/MTPTC tient à souligner l'impact dévastateur du tremblement de terre du 12 janvier 2010 ayant considérablement fragilisé et perturbé l'ensemble des institutions et affecte la mise en œuvre du projet.
14. Le MTPTC note que la réactivité et le niveau de résilience des acteurs et institutions concernées ont bien été documentées ainsi que les capacités d'adaptation du projet et des parties prenantes pour l'atteinte des objectifs de développement..
15. Le MTPTC partage les conclusions du présent rapport sur le niveau considérable d'achèvement obtenu dans des circonstances exceptionnelles et rappelle par ailleurs que les retards constatés doivent être analysés au regard des dysfonctionnements occasionnés par le tremblement de terre.
16. Les progrès réalisés en matière de renforcement de capacités institutionnelles ont été substantiels et ont permis de jeter des bases solides pour améliorer la maintenance du patrimoine d'ouvrages d'art et pour l'intégration de la réduction de la vulnérabilité dans les politiques sectorielles et confirme son engagement à poursuivre les efforts en la matière.
17. Nous notons par ailleurs avec satisfaction que notre évaluation et celle du présent rapport convergent vers des conclusions similaires.

Annex 6. Comments of Co-financiers and Other Partners/Stakeholders

N/A

Annex 7. List of Supporting Documents

- Project Appraisal Document, Report No: 34938 – HT, March 13, 2006
- Financing Agreement Emergency Bridge Reconstruction and Vulnerability Reduction Project , February 12, 2009
- Restructuring paper (2011) Report No: 57816-HT March 21, 2011
- Restructuring paper (2013) Report No: 78211 v1 May 30, 2013
- Amendment to the Financing Agreement June 6, 2013.
- Restructuring Paper (2014) Report No: RES16344 October 8, 2014
- UNOPS Final Report, May 2015
- UCE/BMPAD, various quarterly reports
- Financial audits 2009-2015
- Project Impact Evaluation Study, WSP , May 2015
- UCE Rapport d’Achèvement, June 2013