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The World Bank

Report No: ICR00003073

IMPLEMENTATION COMPLETION AND RESULTS REPORT
(IDA-H213-0 and IDA-H526-0 IDA)

ON A GRANT

IN THE AMOUNT OF SDR 11.2 MILLION
(US\$ 16.0 MILLION EQUIVALENT)

AND AN

ADDITIONAL FINANCING GRANT

IN THE AMOUNT OF SDR 7.6 MILLION (US\$ 12.0 MILLION EQUIVALENT)

TO THE

REPUBLIC OF HAITI

FOR A

TRANSPORT AND TERRITORIAL DEVELOPMENT PROJECT

January, 2014

Sustainable Development Department
Caribbean Country Management Unit
Latin America and Caribbean Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective January 10, 2014)

Currency Unit = Haitian Gourdes

HT Gourdes 1.00 = US\$ 0.0238

US\$ 1.00 = HT Gourdes 42

FISCAL YEAR

January 1 to December 31

ABBREVIATIONS AND ACRONYMS

AF	Additional Financing
AVSF	<i>Agronomes et Vétérinaires Sans Frontières</i> Agronomists and Veterinarians Without Borders
BMPAD	<i>Bureau de Monétisation pour l'Aide au Développement</i> Office for the Monetization of Development Aid
CARDP	Center Artibonite Regional Development Project
CCI/ICF	<i>Cadre Intérimaire de Coopération</i> Interim Cooperation Framework
CBO	Community-based Organization
CDD	Community-Driven Development
CECI	Canadian Center for International Cooperation
CIDA	Canadian International Development Agency
EA	Environmental Assessment
EMP	Environmental Management Plan
EU	European Union
FER	<i>Fonds d'Entretien Routier</i> Road Maintenance Fund
GOH	Government of Haiti
IDA	International Development Association
IADB	Inter-American Development Bank
IFAD	International Fund for Agriculture Development
M&E	Monitoring and Evaluation
MDOD	<i>Maître D'Ouvrage Délégué</i> Non-Government Organization in charge of project implementation
MIS	Management Information System
MPCE	Ministry of Planning and External Cooperation
MTPTEC	<i>Ministère des Travaux Publics, Transports, Energie et Communications</i> Ministry of Public Works, Transport, Energie and Communications
O&M	Operation and Maintenance
PRODEP	<i>Projet de Développement Communautaire Participatif</i> Community Participation Development Project
PRODEPUR	Community Participation Development Project in Urban Areas
PRGRD	Disaster Risk Management and Reconstruction Project

PROREV	Emergency bridge and vulnerability reduction project
PRUII	Infrastructure and Institutions emergency recovery project
TGOH	Transitional Government of Haiti
TSS	Transitional Support Strategy
UCE	Unité Technique d'Exécution <i>Technical Execution Unit</i>
UNDP	United Nations Development Program
USAID	United States Agency for International Development

Vice President: Hasan A. Tuluy Country Special Envoy: Mary Barton-Dock Sector Manager: Aurelio Menendez Project Team Leader: Pierre Bonneau ICR Team Leader: Pierre Bonneau

HAITI

Transport and Territorial Development Project CONTENTS

Data Sheet

- A. Basic Information
- B. Key Dates

- C. Ratings Summary

- D. Sector and Theme Codes

- E. Bank Staff

- F. Results Framework Analysis

- G. Ratings of Project Performance in ISRs

- H. Restructuring

- I. Disbursement Graph

Table of Contents

1. Project Context, Development Objectives and Design	12
1.1. <i>Context at Appraisal</i>	2
1.2. <i>Original Project Development Objective (PDO) and Key Indicators (as approved)</i>	4
1.3. <i>Revised PDO (as approved by original approving authority) and Key Indicators, and reasons/justification</i>	4
1.4. <i>Main Beneficiaries</i>	5
1.5. <i>Original Components (as approved)</i>	6
1.6. <i>Revised Components</i>	8
1.7. <i>Other significant changes</i>	8
2. Key Factors Affecting Implementation	8
2.1. Project Preparation, Design and Quality at Entry	8

2.2.	Implementation	12
2.3.	Monitoring and Evaluation (M&E) Design, Implementation and Utilization	13
2.4.	Safeguard and Fiduciary Compliance	14
2.5.	Post-completion Operation/Next Phase	15
3.	Assessment of Outcomes	15
3.1.	Relevance of Objectives, Design and Implementation	15
3.2.	Achievement of Project Development Objectives	17
3.3.	Efficiency	18
3.4.	Justification of Overall Outcome Rating.....	20
3.5.	Overarching Themes, Other Outcomes and Impacts	20
3.6.	Summary Findings of Beneficiary Surveys and/or Stakeholder Workshops	21
4.	Assessment of Risk to Development Outcome.....	23
5.	Assessment of Bank and Borrower Performance.....	23
5.1.	<i>Bank Performance</i>	23
5.2.	<i>Borrower Performance</i>	25
6.	Lessons Learned.....	27
7.	Comments on Issues Raised by Borrower/Implementing Agencies/Partners	29

A. Basic Information			
Country:	Haiti	Project Name:	Haiti Transport and Territorial Development Project / PTDT
Project ID:	P095523	L/C/TF Number(s):	IDA-H2130
ICR Date:	01/31/2014	ICR Type:	Core ICR
Lending Instrument:	SIL	Borrower:	REPUBLIC OF HAITI
Original Total Commitment:	SDR 11.2 M	Disbursed Amount:	SDR 10.7 M
Revised Amount:	SDR 18.8 M	Disbursed Amount:	SDR 18.2 M
Environmental Category: B			
Implementing Agencies: Ministry of Public Works, Transportation, Energy and Communications (MTPTEC)			
Co-financiers and Other External Partners:			

B. Key Dates				
Process	Date	Process	Original Date	Revised / Actual Date(s)
Concept Review:	09/02/2005	Effectiveness:		12/13/2006
Appraisal:	02/03/2006	Restructuring(s):		12/22/2008
Approval:	04/11/2006	Mid-term Review:	07/01/2009	
		Closing:	06/30/2013	07/30/2013

C. Ratings Summary	
C.1 Performance Rating by ICR	
Outcomes:	Moderately Satisfactory
Risk to Development Outcome:	Substantial
Bank Performance:	Moderately Satisfactory
Borrower Performance:	Moderately Satisfactory

C.2 Detailed Ratings of Bank and Borrower Performance (by ICR)			
Bank	Ratings	Borrower	Ratings
Quality at Entry:	Moderately Satisfactory	Government:	Moderately Satisfactory
Quality of Supervision:	Moderately Satisfactory	Implementing Agency/Agencies:	Moderately Satisfactory
Overall Bank Performance:	Moderately 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):	No	Quality of Supervision (QSA):	None
DO rating before Closing/Inactive status:	Satisfactory		

D. Sector and Theme Codes		
	Original	Actual
Sector Code (as % of total Bank financing)		
Roads and Highways	76	80
Agriculture Marketing and Trade	10	20
Theme Code (as % of total Bank financing)		
Rural services and infrastructure	29	80
Trade facilitation and market access	14	20

E. Bank Staff		
Positions	At ICR	At Approval
Vice President:	Hasan A. Tuluy	Pamela Cox
Country Director:	Mary A. Barton-Dock	Caroline D. Anstey
Sector Manager:	Aurelio Mendez	Makhtar Diop
Project Team Leader:	Pierre Bonneau	Jayme Porto-Carreiro / Nicolas Peltier-Thiberge
ICR Team Leader:	Pierre Bonneau	
ICR Primary Author:	Jean-Claude Balcet	

F. Results Framework Analysis

Project Development Objective (from Project Appraisal Document)

The PDO was to lower the marketing costs for small producers in two selected ‘micro-regions’ comprising 4 to 5 communes in the Northern and South-Eastern departments of Haiti (N.B.: marketing costs are those costs incurred in the aggregate of functions involved in moving goods from producer to consumer). *Specific Objectives:* (i) reduce transport costs in bringing locally-produced goods to markets and productive inputs from market, (ii) reduce other marketing costs (e.g., transit losses), and (iii) ensure the sustainability of investments (transport and other basic infrastructure).

Key project indicators were: (i) outputs: km of roads improved up to acceptable standards, number of spot interventions and emergency maintenance activities, km of roads receiving adequate levels of routine maintenance, amount of basic infrastructure investments financed by the project, and amount of productive investments identified through the territorial development window; (ii) outcomes: decreased transport costs, decreased travel time, decreased transit losses and employment generated; and (iii) impact: increased traffic.

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

Project was restructured in 2008 and benefited from an additional financing (AF) grant in 2009. The PDO statement was not revised. Key Performance Indicators were unchanged except for one (km of roads improved up to acceptable standards from 80 km to 52 km), following coordination with EU that had accepted to finance the remainder of RN3 rehabilitation. One performance indicator was added for the new Component 4 (post natural disaster's reconstruction of selected infrastructure).

PDO and Result Indicators

Indicator	Baseline Value	Original Target Values (from PAD)	Formally Revised Target Values (PAD AF)	Actual Value Achieved at Completion or Target Years
Project Development Objective				
PDO Indicator 1:	Decrease in transport costs			
Value	0	-25%	-25%	-38.5%
Date achieved	02/08/2008	03/06/2006	11/04/2009	07/30/2013
Comments	<i>Achieved.</i> The percentage is the arithmetic average between the North and the SE corridors for the decrease in the transports for goods.			
PDO Indicator 2:	Decrease in travel time			
Value	0	-30%	-30%	-58%
Date achieved	02/08/2008	03/06/2006	11/04/2009	07/30/2013
Comments	<i>Achieved.</i> The percentage is the arithmetic average between the North and the SE corridors for the transport of goods and passengers. The target was substantially exceeded.			
PDO Indicator 3:	Days per year during which roads are impractical			
Value	>20	<5	<5	0
Date achieved	02/08/2008	03/06/2006	11/04/2009	07/30/2013
Comments	<i>Achieved.</i> The two stretches of roads are passable year round.			
PDO Indicator 4:	Lower transit costs			
Value	0	-30%	-30%	>-30%
Date achieved	02/08/2008	03/06/2006	11/04/2009	07/30/2013
Comments	<i>Substantially achieved.</i> The transit costs are highly correlated to the decrease in travel time and the improvement in the quality of transport. For perishable goods these costs are estimated to have decreased by over 30% (beneficiary survey).			
Component 1: Improvement of key transport corridors (road improvement and maintenance)				
Component 1:	Km of roads improved to acceptable standards			

Result indicator 1				
Value	0	80	52	48.5
Date achieved	02/08/2008	03/06/2006	11/04/2009	07/30/2013
Comments	93% achieved. Fewer km were rehabilitated in the North as a positive result of coordination with EU and AFD about RN3 rehabilitation. It was agreed that the Bank would finance the rehabilitation of the road Carrefour Lamort to Barrière Battant			
Component 1: Result indicator 2	Km of roads receiving adequate level of maintenance			
Value	0	80	80	0
Date achieved	02/08/2008	03/06/2006	11/04/2009	07/30/2013
Comments	Not achieved. Activities not completed by the project. The northern stretch received maintenance directly from MTPC. However both stretches are included in FER priority list of eligible road according to the FA legal covenant concerning funding for maintenance activities.			
Component 1: Result indicator 3	No. of spot interventions and emergency maintenance activities			
Value	0	5	1	1
Date achieved	02/08/2008	03/06/2006	11/04/2009	07/30/2013
Comments	100% achieved. The spot intervention completed was the 'Pont Limite' over the Bouhaya river between the St. Raphaël and Dondon communes. At project restructuration (end-2008) all other spot interventions were transferred over to Component 4.			
Component 1: Result indicator 4	Workdays generated by road maintenance activities			
Value	0	832	832	0
Date achieved	02/08/2008	03/06/2006	11/04/2009	07/30/2013
Comments	Not achieved. No maintenance activities were funded under TTDP. Hence, no employment was generated directly by TTDP on that front. However MTPC road maintenance activities on northern stretch did generate employment			
Component 1: Result indicator 5	Increased traffic on rehabilitated roads			
Value	0	+20%	+20%	> 20%
Date achieved	02/08/2008	03/06/2006	11/04/2009	07/30/2013
Comments	Substantially achieved. Traffic data were collected at project closure as part of the impact study; however the composition of the fleet using the rehabilitated stretches had changed dramatically which make difficult the comparison with the baseline survey (2007)			
Component 2: Territorial development window				
Component 2: Result indicator 1	Cumulated amount of acceptable investment proposals assessed, prioritized and presented to financiers			
Value (US\$ million)	0	5.0	5.0	4.2
Date achieved	02/08/2008	03/06/2006	11/04/2009	07/30/2013
Comments	84% achieved. Arithmetic average between the North and SE micro-regions.			
Component 2: Result indicator 2	Cumulated amount of basic infrastructure proposals financed			
Value (US\$ million)	2.5	2.5	2.5	2.15

Date achieved	02/08/2008	03/06/2006	11/04/2009	07/30/2013
Comments	86% achieved. Investment proposals for only about US\$2.15 million were financed. The reason is that the cost of technical assistance (MDODs) exceeded the estimated cost by about US\$350,000. Since no additional funding was earmarked for Component 2, it was decided to transfer the corresponding funding from Subcomponent 1.2 (subprojects) to Subcomponent 1.1 (territorial planning) to finance the MDODs' contracts.			
Component 4: Post-natural disasters' reconstruction of selected infrastructure				
Component 4: Result indicator	No. of spot interventions on transport infrastructure affected by natural disasters			
Value	0	-	15	26
Date achieved	11/04/2009	-	11/04/2009	07/30/2013
Comments	173% achieved. Additionally, the result was achieved by contracting SMEs, hence supporting local SMEs and creating employment.			

G. Ratings of Project Performance in ISRs

No.	Date ISR Archived	DO	IP	Actual Disbursements (USD millions)
1	06/12/2006	Satisfactory	Satisfactory	0.00
2	11/14/2006	Satisfactory	Satisfactory	0.00
3	05/08/2007	Satisfactory	Satisfactory	0.20
4	06/26/2007	Satisfactory	Satisfactory	0.00
5	10/08/2007	Satisfactory	Moderately Satisfactory	0.89
6	03/11/2007	Satisfactory	Moderately Satisfactory	0.00
7	06/25/2008	Satisfactory	Moderately Satisfactory	0.30
8	11/25/2008	Satisfactory	Moderately Satisfactory	0.72
9	04/20/2009	Satisfactory	Moderately Satisfactory	0.72
10	07/29/2009	Satisfactory	Moderately Satisfactory	0.42
11	09/11/2009	Satisfactory	Moderately Satisfactory	0.19
12	04/29/2010	Satisfactory	Moderately Satisfactory	4.98
13	02/25/2011	Satisfactory	Satisfactory	7.03
14	10/11/2011	Satisfactory	Satisfactory	4.88
15	05/13/2012	Satisfactory	Satisfactory	1.84
16	01/09/2013	Satisfactory	Moderately Satisfactory	1.86
17	09/04/2013	Moderately Satisfactory	Moderately Satisfactory	3.60

H. Restructuring (if any)

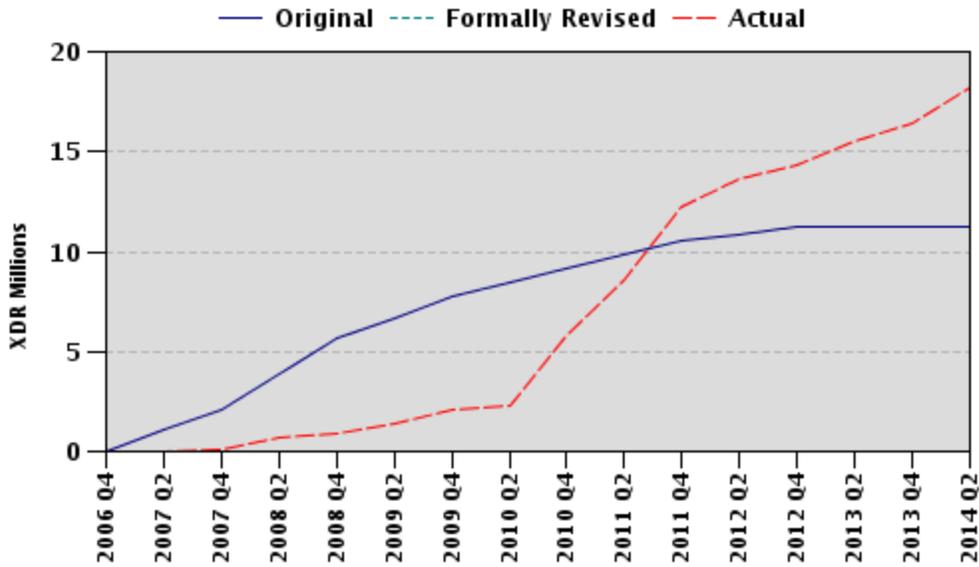
Restructuring Date(s)	Board Approved PDO Change	ISR Ratings at Restructuring		Amount Disbursed at Restructuring in USD millions	Reason for Restructuring & Key Changes Made
		DO	IP		
12/22/2008	Y	S	MS	3.44	The Additional Financing represented the Bank's response

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		
					to the need for hurricane-related disaster relief. <i>Changes:</i> FA incorporated lessons learned at the time, added US\$12.0 million funding overall, and created Component 4 with own performance indicator.

If PDO and/or Key Outcome Targets were formally revised (approved by the original approving body) enter ratings below:

	Outcome Ratings
Against Original PDO/Targets	Moderately Satisfactory
Against Formally Revised PDO/Targets	Moderately Satisfactory
Overall (weighted) rating	Moderately Satisfactory

I. Disbursement Profile



1. Project Context, Development Objectives and Design

1.1. Context at Appraisal

(a) Country and Sector Background

1. **General Country Background.** For several decades, Haiti struggled to emerge from cycles of political instability and natural disasters that devastated its economy, weakened state institutions, exacerbated poor governance and deepened poverty. By 2003, the situation had become so precarious that external aid dried up, the World Bank closed its office in Haiti and many other donor agencies withdrew their support. Armed opposition forces entered from the Dominican Republic to remove President Aristide from power and he left the country on February 29, 2004. Subsequently, a transitional government was formed, a United Nations peace-keeping force (MINUSTAH) was deployed to maintain stability, and the Bank reengaged in Haiti. In addition to political shocks, Haiti is consistently struck by natural disasters, with devastating effects. In Haiti, 96 percent of the population lives in areas at high risk to multiple natural hazards (landslide, flood, earthquake). In 2007 and 2008, 5 hurricanes and tropical storms struck Haiti (Noël, Fay, Gustav, Hanna and Ike). The magnitude 7.0 earthquake of 2010, caused over 200,000 deaths and displaced 1.5 million people, caused US\$7.9 billion (120% of GDP) in damages and losses and US\$11.3 billion in reconstruction needs.

2. **Agricultural Sector Background.** In 2005, before project inception, agriculture played a dominant role in the Haitian economy, contributing almost 30 percent of GDP (2002 figure) and accounting for around 50 percent of overall employment, two thirds of employment in rural areas, and three fourths of employment for the poor. Smallholder agriculture dominated the rural economy. As the major engine of growth, it had the potential to generate, in the short-to-medium term, multiplier effects for the rest of the rural economy. The major obstacle to mobilizing this potential was low rural productivity combined with a high cost of doing business. The Bank's 2005 Agriculture and Rural Development Review stated that the competitiveness of smallholder agriculture had declined in previous decades resulting in a cycle of persistent poverty, out-migration and environmental degradation. It identified the lack of access to markets due to poor transport conditions, as well as the lack of post-harvest and market infrastructure, as major reasons for the agricultural decline.

3. **Road Sector Background.** At project appraisal, Haiti's road network was in abysmal condition, causing very high transport costs and unreliable transport services. This situation was the result of years of neglect. The collapse of the road maintenance, the reduced level of investment and the adverse climatic conditions had resulted in a dramatic deterioration of road assets. According to the 2004 road inventory, only 20 percent of the 3400 km of Haitian roads was in acceptable (good and average) condition, whilst 80 percent of the network was in bad or very bad condition. The proportion of roads in acceptable condition had fallen dramatically in the decade of the 90s since it was estimated at 34 percent in 1991. About 1,100 km of roads had been taken out from the national road inventory due to their extreme levels of degradation, making them impassable part of the year.

4. **Disaster Relief and Reconstruction.** At the time of appraisal, the Bank had already embarked on several operations meant to address damages and disruptions caused by hurricanes and tropical storms, such as a project focused on disaster relief following the Fonds Verrette flash flood that wiped out half of the city and the Mapou flooding that claimed several thousand lives in the South East (FY2004). But the Bank had not yet systematically included this kind of support as part of project design, and no major reallocation of funds from existing operations had

been performed to that effect, as was done subsequently following the devastating 2010 earthquake and 2012 Sandy hurricane.

(b) Rationale for Bank involvement (*original project*)

5. **Interim Cooperation Framework (ICF).** In early 2004, the Transitional Government (TGOH) led the donor community in preparing an Interim Cooperation Framework. The ICF sought renewed political and social stability, and economic growth. Its broad strategic themes were to: (i) strengthen political governance and promote national dialogue; (ii) strengthen economic governance and contribute to institutional development; (iii) promote economic recovery; and (iv) improve access to basic services. The Transport and Territorial Development Project (TTDP) reviewed by this report, was intended to contribute directly pillars (iii) and (iv) of the ICF. It was expected to create local economic opportunities by facilitating access to markets and improved livelihoods through better access to basic services such as education and health. The Project was also intended to contribute indirectly to ICF pillars (i) and (ii) regarding political and economic governance through sound and transparent management of public resources for transport infrastructure.

6. **Bank's IDA Transitional Support Strategy (TSS).** In January 2005, the Bank's Board of Directors endorsed a Transitional Support Strategy (TSS) for Haiti, which included up to US\$150 million in grant commitments over a two-year period. A key aspect of the TSS was poverty alleviation through improved access of communities to basic services and infrastructure. The two-year strategy sought to restore hope by supporting: (i) basic services provision; (ii) job creation; (iii) rehabilitation of areas devastated by floods in 2004; and (iv) community initiatives in local development. The TSS was also intended to strengthen governance and institutions, improving transparency, and promoting inclusion and consensus building on development priorities. TTDP was closely linked to the TSS as regards: (i) improvement of transport corridors needed to link rural producers to markets with a focus on two 'micro-regions' (Sub-Component 1.1); (ii) spot interventions and maintenance to ensure all-weather accessibility on selected connecting roads (Sub-Component 1.2); and (iii) promotion of territorial development and community initiatives through a participatory planning process to determine development priorities and select local investments (Component 2: Territorial development window).

7. TTDP was approved by the Executive Directors on April 11, 2006, and became effective on December 13, 2006. The project was initially financed through a US\$16 million equivalent IDA grant. It was restructured on December 8, 2008. The restructuring consisted in a reallocation of grant resources in the amount of US\$7.3 million to finance reconstruction works following hurricanes and tropical storms that struck Haiti in 2007 (Noël) and 2008 (Fay, Gustav, Hannah and Ike - FGHI). A new component was added, entitled 'Post natural disasters' reconstruction of selected infrastructure'.

(c) Rationale for Bank Involvement (*additional financing*)

8. The additional financing (AF) grant was approved by the Executive Directors on December 8, 2009 and became effective on January 11, 2010. The additional grant was meant to help finance the costs associated with a financing gap due to: (i) additional activities included as part of a the project restructuring processed in 2008, in response to reconstruction needs generated by the 2007 and 2008 hurricanes and tropical storms; and (ii) the cost escalation of the road rehabilitation works included in the initial project. It is worth noting that the devastating 2007/2008 storms and hurricanes, which were followed by the terrible 2010 earthquake and the 2012 Sandy hurricane, were major external events which stopped regular administrative activities and diverted the focus of most government services and agencies to short-term disaster relief and reconstruction efforts. The reason for the cost escalation was due to the realization that the

anticipated traffic on the National Road No. 3 (RN3) in the North justified an upgrade of standards, and, hence, more costly rehabilitation work to be undertaken by the Project.

9. At the same time, the financing strategy for RN3 was modified based on the result of close coordination between the three donors involved (IDA, AFD and EU). The AFD agreed to finance the technical studies of the Hinche - Saint Raphaël section (45 km), whereas IDA agreed to finance those of the Saint Raphaël - Carrefour la Mort section (38.7 km). Works and supervision contracts were to be financed by AFD and EU on the Hinche - Barrière Battant section (75.2 km), whereas IDA would finance the Barrière Battant - Carrefour la Mort Section (8.5 km).

1.2. Original Project Development Objective (PDO) and Key Indicators (*as approved*)

10. The Project Development Objective (PDO) was to lower the marketing costs for small producers in the two selected areas (called ‘micro-regions’). The marketing costs were defined as are those costs incurred in the aggregate of functions involved in moving goods from producer to consumer. The Specific Objectives were to (i) lower transport costs in bringing locally-produced goods to market and productive inputs from market; (ii) reduce other marketing costs (e.g., transit losses); and (iii) ensure the sustainability of investments (transport and other basic infrastructure).

11. The key original project performance indicators retained, as per the PAD Results Framework, were: (i) outcome indicators: decrease in transport costs and travel time, reduction in transit losses and increase in employment; and (ii) output indicators: km of roads improved up to acceptable standards, number of spot interventions and emergency maintenance activities, km of roads receiving adequate levels of routine maintenance, amount of basic infrastructure investments financed by the project, and amount of productive investments identified through the territorial development window.

12. The original project was intended to pilot a territorial development approach in two ‘micro-regions’. The micro-regions correspond to an economically integrated territory encompassing four to five communes sharing (i) similar agro-ecological conditions and production potential; (ii) common economic interests; and (iii) common roads, marketplaces and other basic infrastructure. The two micro-regions selected according to their rural growth potential and their needs in basic infrastructure were Dondon-St Raphaël (five communes in the North department) and Thiotte-Anse à Pitre (four communes in the South-East department). In each micro-region, the project was to finance (i) key transport improvement investments expected to have a major impact on rural accessibility and become anchors to promote rural growth (Component 1); and (ii) basic infrastructure and productive investments prioritized by local stakeholders to generate rural growth, with a view to capitalize on improved transport conditions (Component 2). If successful this model was to be replicated in other micro-regions in Haiti.

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

13. The additional financing did not involve any modification to the Project Development Objective. The result framework was updated to reflect the incorporation of Component 4 into the project design. The corresponding result indicator for Component 4 (no. of spot interventions on transport infrastructure affected by natural disasters) was added to the project results framework. Two targets were revised: (i) the target for km of roads improved up to acceptable standards, was revised downward from 82km to 52km to reflect the agreement that the UE would take responsibility for the stretch of road from Barrière Battant to St. Raphaël (30km) previously assigned to the Bank; and (ii) the target for spot interventions under Component 1 was revised downward from 5 to 1, as all spot interventions were passed on to Component 4 as part of the

restructuring, except one (the ‘Pont Limite’ bridge over the Bouhaya river between Dondon and St. Raphaël).

14. Table 1 below sums up the initial targets for the project PDO indicators and Component results, and the revised target that were to guide project implementation following Board approval of the additional financing.

Table 1 – Initial and revised targets for PDO indicators

	Initial Target	Revised Target
PDO Indicators		
Decreased transport costs	-25%	-25%
Decreased travel time	-30%	-30%
Days per year in which the rehabilitated road is impractical	<5	<5
Lower transit costs	-30%	-30%
Component 1 Results Indicators		
Km of roads improved up to acceptable standards	80	52
Km of improved roads receiving adequate level of maintenance	80	80
No. of spot interventions and emergency maintenance activities	5	1
Workdays generated by maintenance activities (thousands)	832	832
Increased traffic	+20%	+20%
Component 2 Results Indicators		
Cumulated amount of acceptable investment proposals assessed, prioritized and presented to financiers (\$ million)	5.0	5.0
Cumulated amount of basic infrastructure financed (\$ million)	2.5	2.5
Component 4 Results Indicators		
No. of spot interventions on transport infrastructure affected by natural disasters	-	15

1.4. Main Beneficiaries

15. The initial TTDP project was expected to bring important benefits to the Haitian population, particularly small producers from the two selected micro-regions, which are highly dependent of the quality and reliability of the transport system to access local and regional markets: (i) the micro-region of Dondon-St. Raphaël, which covers five communes in the Northern department, connected to Cap Haïtien the second biggest city in the country (production of coffee, vegetables, beans, corn and citrus peels); and (ii) the micro-region of Thiotte-Anse à Pitre covering four communes in the South-Eastern department, and located along the border with the Dominican Republic (production of coffee, vegetable, beans, roots, cattle and charcoal); the Bank-funded CDD project (PRODEP) had a presence in this second micro-region. The most prominent criteria in reaching the decision concerning the selection of the two micro-regions were their high agriculture potential and the lack of roads and market infrastructure. Thus, improved roads and market infrastructure could make a large impact on the local economy of

these areas. Since these micro-regions are characterized by smallholder agriculture, it was expected that any increased growth would directly benefit many poor households.

16. The additional financing approved by the Executive Directors in response to the 2007 and 2008 hurricane seasons was meant to channel project resources to repair and reinforce selected infrastructure that were key to ensuring the continuity of the Haitian transport system. The intended beneficiaries were the populations living close to the spot interventions being financed under Component 4. These interventions were meant to enable them to preserve their livelihood base, and access markets and basic social services.

1.5. Original Components (as approved)

17. Over a six-year period, the project was expected to finance the following activities:

18. **Component 1: Improvement of key transport corridors (US\$11.25 million).** The component's objective was to improve the transport conditions in a sustainable manner in the two micro-regions, through selected interventions on roads and critical points that are essential to the rural economy. The project was to finance the cost of the works, related technical and economic studies and implementation supervision.

19. **Sub-Component 1.1: Road improvement and spot interventions (US\$10.75 million).** The project was to finance the improvement of key transport infrastructure in each of the selected micro-regions. Two transport corridors of about 50km each, constituting the 'backbone' of the transport system in each micro region, were identified in consultation with local stakeholders during project preparation. For each of these transport corridors, the project was to first finance detailed feasibility and engineering studies to determine the most appropriate technology for the road rehabilitation works. The scope of these studies was to also include selected spot interventions to restore or preserve access (e.g., bridges, low water crossings, consolidation of slopes). These studies were to be contracted by the Project Coordination and Implementation Unit (UCE) at the Ministry of Public Works (MTPTEC). Once the studies had helped determine the appropriate technical solutions for road improvement and spot interventions, the Project would finance the cost of the related works and supervision. It was expected that large road improvement works would be executed by mid-to-large size firms while spot interventions would be contracted out to SMEs, or even to micro-enterprises such as those expected to be used for routine maintenance (see Sub-Component 1.2). Component 1 was to be implemented in close coordination with the other donors.

20. The two transport corridors selected were:

- a) *Corridor no. 1: Carrefour Lamort - St. Raphaël* (38.8 km): This corridor comprised a segment of National Road no. 3 (RN3) connecting a number of important local markets (e.g., Grand-Rivière, Dondon, Saint Raphaël) to Cap-Haïtien; a number of spot interventions had been identified on this corridor; and
- b) *Corridor No. 2: Forêt des Pins – Anse à Pitre* (60 km): This corridor comprised a segment of the Departmental Road no. 102 (RD102) connecting the Thiotte-Anse à Pitre micro-region to Port-au-Prince and to an important market located on the Dominican border (Pedernales); on the RD102 segment from Thiotte to Forêt des Pins (20 km), the preliminary technical assessment performed during project preparation had recommended only periodic maintenance works.

21. **Sub-Component 1.2: Emergency and routine road maintenance (US\$0.5 million).** The total collapse of the road maintenance system in the early 1990s constituted one of the most

critical issues facing road investments in Haiti. Reforms engaged by the Government as well as the support of donor community had allowed some limited progress in this area, the most notable being making functional and operational the Road Maintenance Fund (FER) financed by earmarked taxes (essentially a gasoline tax) in 2003, which was not active. The project intended to support the reform of the Haitian road management system initiated with FER's creation. Specifically, it was intended to ensure that the list of priority roads whose maintenance was FER's responsibility was duly established and published on a monthly basis, and that FER would have corresponding access to all proceeds earmarked for maintenance of these roads. Sub-Component 1.2's funding was earmarked only to support road maintenance activities of the road investments to be financed by the Project. Rather FER was to be strengthened through the provision of logistical support and training under Component 3 (see below).

22. Component 2: Territorial development window (US\$3.0 million). The improvement of the key transport corridors identified in the micro-regions was meant to become an anchor around which rural growth initiatives would be developed. In order to facilitate the emergence of such growth initiatives, a 'territorial development approach' was to be pioneered in each micro-region. This approach aimed at putting in place a process to prioritize and assess growth initiatives (Sub-component 2.1) that could be financed either by the project (Sub-component 2.2) or by other donors, or by the Government.

23. Sub-component 2.1: Territorial planning process (US\$0.5 million). This sub-component aimed to support the territorial planning process leading to the identification of priority investments at the micro-region's level, including two stages: (i) a broad participatory consultation in which all local and regional stakeholders were to present investment proposals consistent with the project development objective; and (ii) a prioritization exercise managed at the level of each micro-region and performed by an *ad hoc* territorial planning committee (the 'Consultation Table-CT') in which stakeholders would decide and endorse the territorial development strategy proposed for the region and the list of related investments. The CT is a forum regrouping all stakeholders involved in planning at regional level, i.e., representatives of the central government, the local governments (Communes and Communal Sections - CASECs and ASECs), the civil society and the private sector. The municipal services convene and chair the CT, and act as its secretariat jointly. This CT process was to be managed by a facilitator hired and financed under the sub-component. The role of the facilitator was to organize the broad participatory consultation process, provide technical assistance to the communes and ensure the implementation of the prioritized sub-projects. This last responsibility included assessing the technical, economic and financial feasibility of subprojects, contracting the operators that would implement the related works, and supervising and monitoring implementation and sustainability of sub-projects financed under this component.

24. Sub-component 2.2: Complementary sub-projects (\$2.5 million). The priority investments ('sub-projects') that would emerge from the above territorial planning process were to be financed up to a total of \$2.5 million for the two micro-regions. The facilitator recruited under the previous sub-component, was to provide the required assistance to complete the sub-project feasibility studies. The cost of eligible investments were to be between \$20,000 and \$100,000, that is, larger than the cost of investments eligible for funding under CDD projects such as the Bank-funded PRODEP (typically under \$20,000). It was envisaged that a few projects costing over \$100,000 would be made eligible for project funding on an exceptional basis, subject to prior approval by the Bank. In implementing the priority investments, the Project was expected to work closely with the other donors so as to secure additional funding, including IADB, the European Union, UNDP (Capacity 21 and/or UNCDF) and the Canadian, German and Spanish cooperations, as they had acquired experience in territorial planning in Haiti and/or were active in the two micro-regions.

25. **Component 3: Project administration and Monitoring and Evaluation (M&E) (US\$1.75 million).** This component was to finance expenditures for project administration, including environmental management and M&E activities. Eligible expenditures included: (i) staff costs of implementing units; (ii) studies and consultancies; (iii) training activities; and (iv) acquisition of goods and equipment needed for project implementation (e.g., vehicles, office equipment, computers). Administrative costs incurred by the main PCU (UCE of MTPTC), and by BMPAD and FER were to be eligible under this component.

1.6. Revised Components

26. Component 4, introduced after the 2008 restructuring, was intended to finance a list of priority reconstruction works, identified by the Haitian Ministry of Public Works, Transport, Energy and Communication (MTPTEC), with the technical assistance of IDA (see List of Component 4 reconstruction works in [Annex 2](#)).

1.7. Other significant changes

27. The initial IDA grant resources (US\$16 million) were reallocated and increased as indicated in [Table 2](#) below, based on the 2008 restructuring and subsequent approval of the Additional Financing by the Board (US\$12 million):

Table 2 – Initial, restructured and revised IDA grant allocations (US\$ million)

Component/ Sub-Component	Initial allocation (2006)	Restructured allocation (2008)	Revised allocation (2009)
Component 1: Improvement of key transport corridors	11.20	3.75	18.66
▪ Sub-Component 1.1: Road improvement and spot interventions	10.70	3.25	18.16
▪ Sub-Component 1.2: Road maintenance	0.50	0.50	0.50
Component 2: Territorial development window	3.00	3.00	3.00
▪ Sub-Component 2.1: Territorial planning process	0.50	0.50	0.50
▪ Sub-Component 2.2: Complementary sub-projects	2.50	2.50	2.50
Component 3: Project administration and M&E	1.70	1.85	1.93
Component 4: Post natural disaster's reconstruction	-	7.30	4.25
Unallocated	0.10	0.10	0.16
Total amount	16.00	16.00	28.00

2. Key Factors Affecting Implementation

2.1. Project Preparation, Design and Quality at Entry

28. **Background analysis.** The Bank prepared the project in a period of about eight months from September 2005 to April 2006. The preparation team focused on the institutional arrangements and the operational project implementation mechanisms included in the project manual. The social analysis was based on similar project experience and beneficiary assessments.

The Government carried out an environmental assessment with public consultation. The preparation team relied on the conclusions of the 2005 Bank-financed Agriculture Sector Review (ESW) and on the experience gained outside Haiti with similar projects, notably the Peru 2nd Rural Roads Project (FY2001) for overall project design. For Component 1 the team benefited from the long-standing Bank experience regarding road rehabilitation and maintenance. For Component 2 the team capitalized on territorial planning activities that had been undertaken by other donors notably UNDP, and the French and Canadian cooperation agencies, as regards planning at communal and regional level.

29. Building on prior experience with similar projects, the project design strategy included the following features that were deemed crucial in the Haitian context: (i) multi-sector approach: to be effective the project needed to have a broad multi-sector development perspective and a corresponding proper mix of investments; (ii) territorial development strategies: given the diverse agro-ecological conditions of the micro-regions, a spatially differentiated approach was required; (iii) stakeholder's involvement: in the absence of a decentralization framework and attendant institutions designed to reach out to beneficiaries at the grassroots, participatory planning was deemed required as a means to promote project ownership, particularly for the road works that would require regular maintenance; and (iv) initial investment as anchor to jumpstart economic growth: in the context of Haiti where transport conditions were abysmal, such an investment had to focus road rehabilitation; the intent was not to spread resources too thinly but to squarely focus on the key roads identified as the major impediment to rural growth.

30. **Project objectives and indicators.** The PDO to lower marketing costs for small producers was relevant to further the ICF and TSS goals. It was responsive to the country's circumstances and development priorities at that time. PDO indicators concerning the decrease in transport cost and travel time, as well as the 'transitability' (days per year during which the roads are impractical), were realistic and reachable. They focused on the outcome for which the project could reasonably be held accountable given its duration, resources, and approach. The indicator related to lower transit costs (i.e., losses incurred during transport) was well-taken to estimate project impact, but, as defined, it proved too broad to be accurately measured. It should have been specified for the given types of goods and products being transported, the composition of which changed dramatically during the project duration (with more perishables being transported in particular). Since this indicator overall is highly correlated with travel time and conditions, it was possible to get a sense of the improvements brought about by the project. But it was difficult to accurately compare the pre-project and post-project situations. Similarly, the indicator concerning the increase in overall traffic, as formulated, proved difficult to assess. It should have been specified for different types of vehicles. Indeed, the indicator did not take into account the likely change in the composition of the fleet of vehicles using the rehabilitated roads. It so happened that the fleet using the rehabilitated roads, because of improved road conditions, changed so dramatically (e.g., preeminence of motorcycles that were quasi-inexistent at project inception, and replacement of trucks by smaller pick-up trucks and mini buses that were similarly quasi-inexistent at project inception) that it proved difficult to compare the baseline (2007) and end-project (2013) situations. Despite the challenges of comparing pre- and post-measurements, the qualitative data gathered in the context of the beneficiary assessment and the existing high levels of transit as well as considerably reduced travel times indicate the positive impact of the project on both cost and overall traffic.

31. **Institutional arrangements.** The project relied on two implementation units: (i) the Coordination and Execution Unit (UCE): this unit, located with the MTPTEC, was the primary implementation unit in charge of overall project coordination as well as the execution of Component 1; UCE had been created prior to TTDP implementation but had only operated on a limited scale at project start-up; TTDP contributed to strengthen its capacity; and (ii) PL480

agency (later renamed the Office for the Monetization of Development Aid-BMPAD) in charge of Component 2: this agency had been created to distribute and monetize in-kind foreign aid (US aid mostly, and thereafter the Venezuelan Petro-Caribe aid); at the time of project start-up it had taken responsibility for the Bank-financed CDD PRODEP project and had created a project management section to that effect; this section relied on other sections for financial, safeguard and M&E purposes; being newly created the project management section had limited capability at project start-up.

32. One of the main problems beyond the limited initial capacity of the implementing units, is that, as TTDP implementation unfolded, they became over-burdened by the management of several other large projects: (i) UCE came to assume responsibility for several other Bank projects, dealing with transport infrastructure reconstruction, notably following 2007/2008 hurricanes and the 2010 earthquake; and (ii) BMPAD also experienced a large increase in its workload, with the development of the Petro-Caribe program and the addition of several projects (including the Bank-financed PRODEPUR, the equivalent of PRODEP for urban areas). Like TTDP, some of these large projects, if their focus was not on emergency and disaster-relief in the first place, were given access to additional resources through the Additional Financing mechanism to assume this type of activities during their implementation. As a result, UCE's and BMPAD's implementation capacity became stretched as years went by, especially with regard to financial management and M&E, and their focus became diverted to a significant degree to disaster-relief and reconstruction activities with negative impact on TTDP implementation as initially construed.

33. **Project design.** Lessons learned from generally accepted methodologies for road rehabilitation and maintenance, as well as territorial planning, were incorporated into project design. The lessons learned from the Peru experience were particularly useful. They were customized to Haitian circumstances. The lessons learned through participatory processes under the funding of other development partners were also heeded. However, although it was based on robust concepts tested in other contexts, the project design displayed some flaws.

34. For Component 1, the decision to entrust the road engineering studies and work execution to large firms proved sub-optimal. This decision was predicated on the fact that, at that time, no SMEs with sufficient capacity and experience were yet in existence in Haiti and it was not envisioned that they would develop sufficiently during project execution. This resulted in the use of large firms with attendant cost escalation since their installation for relatively small contracts in the context of road rehabilitation in the micro-regions proved costly. In reality, SMEs did develop their capacities sufficiently to undertake road works at par with larger firms. To its credit, TTDP displayed sufficient flexibility to adjust to the new situation and SMEs were allowed to participate in project execution along larger firms especially under Component 4. In fact, the use of SMEs turned out to be a major project benefit. Still with Component 1, another design weakness proved to be in the underestimation of the time it would take to actually implement road rehabilitation works. Coordination efforts with other development partners and decisions on the technical options took much longer than anticipated. This led to substantial delays of 2 to 3 years compared with the original timetable. Project struggled with the issue of deciding what would be the better approach to do the road rehabilitation under Component 1 after the GoH indicated that it has finally no fund to rehabilitate the first section of RN3. It was finally decided that the northern corridor, being a national road with envisioned large traffic, would be paved to regular standards for that kind of road. This led to substantial cost escalation. In contrast, it was decided that south-eastern corridor would remain unpaved. Paving was not justifiable on that road stretch at the expected low level of traffic even following rehabilitation.

35. For Component 2, the design proved to be robust and well adapted to local circumstances. The decision to focus on 'micro regions' as opposed to communes, as the proper level to take

advantage of synergies and economies of scale, was novel but turned out to be the right level of intervention. Also novel was the decision to use the ‘Consultation Tables’ (CTs) (ad hoc committees to support the participatory process and approve subprojects) at both communal and micro-regional level. Although they were not established under any legal and regulatory framework, these CTs proved to be useful and efficient bodies, fully integrated into the local government structure. Also, the delegation of Component 2 field implementation to two prominent NGOs that would act as service providers with delegation of authority (MDODs) was a deliberate choice dictated by the weakness of public institutions in Haiti. This proved to be the right way to go given these circumstances. Finally the decision to limit the size of sub-projects to US\$100,000 due to the limited amount of funding available and the weak implementation capacity of communes proved contentious because it also limited their scope and impact. This did not prove a challenge since during implementation the size problem was spontaneously circumvented by communes, as they joined forces at micro-regional level to implement larger subprojects.

36. **Adequacy of government commitment.** GOH authorities fully participated in the project preparation cycle. Both the MTPTEC, through UCE, and the Ministry of Planning and External Cooperation (MPCE), through BMPAP, were involved in preparation activities. They had ample opportunity to provide their views on project design options so that these options would be best aligned with GOH’s development priorities. This joint preparation process with the Bank resulted in the two executing agencies having strong ownership of and being fully committed to the project design, in spite of the fact that the Bank had to assume the lead given the lack of capacities of these agencies. As project preparation unfolded, the Government took full ownership of the project as designed, recognizing that it met its development priorities.

37. **Risk assessment.** The preparation team aptly identified project risks. The project was qualified as a high risk-high reward project with adequate risk mitigation measures. It turned out that most of the identified political risks, including social unrest, never materialized. It was instead natural disasters – duly mentioned in the risk analysis - which disrupted project implementation. Cost over-runs and delays were also duly identified and did materialize.

38. One particular risk that was flagged forcefully, in relation to the sustainability of the road investments, was the weak road maintenance system. At the time of project design some limited progress had been achieved with the creation of the Road Maintenance Fund (FER) and with the convergence of several initiatives from the donor community. The donors were unanimous in saying that road maintenance was a huge problem. It represented a major challenge and had to be tackled systematically. The corresponding risk was rightly flagged as Substantial in the PAD. To mitigate this risk Sub-Component 1.2 was integrated into the project design to specifically support the maintenance of the rehabilitated roads with an amount of US\$500,000. Also, under Component 3, funds were earmarked for the strengthening of FER’s operating capacity. Additionally, TTDP implementation was meant as the opportunity to further advance dialogue on road maintenance. Several covenants were included in the Financing Agreement to that effect including the obligation to publish the FER’s priority list of roads to be maintained and evidence that all proceeds from the taxes earmarked for road maintenance would be transferred to FER on a monthly basis. This was meant to ensure that FER would work according to the rules agreed for its operation. The dialogue on road maintenance spearheaded by the Bank with both the Government and the other donors led to substantial results on that front. The road maintenance list was published regularly on the FER’s website and FER did receive the earmarked resources. The dialogue also led to the preparation of the National Road Maintenance Strategy in 2009. This strategy represented a major breakthrough and is a backdrop for the design of new road operations, including the Bank’s upcoming Center and Artibonite Regional Development Project. It is unfortunate that the TTDP funds allocated for FER for the maintenance of the roads under

Sub-Component 1.2 were earmarked specifically for the roads rehabilitated under TTDP. They could not be disbursed due to the late completion of the road rehabilitation works. In hindsight, the design of the project should have permitted flexibility on that matter and the allocation of funds to road maintenance should have been left open. If not, supervision missions should have displayed sufficient agility to reallocate the funds to maintenance more broadly as it became evident that, due to construction delays, the funds would not be utilized for the roads rehabilitated under the project.

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

2.2. Implementation

40. The following factors influenced project implementation.

a) External factors

41. The following were important external factors that impacted project implementation both negatively and positively:

- 1) *Public sector weakness:* The weakness of public sector management in Haiti was a long-standing issue that was yet to be resolved at the time of project implementation. It has not been resolved to date. Public sector institutions largely depend on external assistance to carry out their functions. Most projects are managed by ad hoc PCUs similarly supported by external assistance. Institutional capacity is with the private and NGO service sector paying higher salaries and therefore attracting more qualified staff. In this context, the project did not attempt to strengthen core public ministries. It outsourced all road works under Component 1 and Component 4, and contracted two international NGOs for Component 2 to carry out outreach activities and support to subprojects. Outsourcing under Component 4 was made to SMEs and permitted to promote this type of firms;
- 2) *Lack of an adequate legal framework for decentralization:* The project entered into partnership with municipal governments through its support of the core mechanism of the 'Consultation Table'. Such partnership permitted to successfully carry out the participatory planning and implement communal sub-projects under Component 2. However, the Consultation Table has remained an ad hoc structure. The lack of the Consultation Table as an institutionalized mechanism, although it did not affect project implementation per se, constitutes a negative factor for the longer-term sustainability of TTDP institutional objectives.
- 3) *Disruptions and delays caused by the 2007/2008 hurricanes and the 2010 earthquake:* The four 2007/2008 devastating hurricanes and the terrible 2010 earthquake were major external events which stopped regular administrative activities and diverted the focus of UCE and BMPAD to short-term disaster relief and reconstruction efforts. The earthquake caused government operations to almost completely collapse. Although UCE and BMPAD suffered only minor physical damage, they were called to massively contribute to disaster-relief and reconstruction activities, with the result that their operating capacity grew severely overstretched; and
- 4) *Donor coordination and strategic alliances:* The Bank was able to coordinate very successfully and enter into a strategic alliance with EU and AFD regarding the rehabilitation of RN3; this constituted a major achievement and prerequisite to going ahead since, due to cost escalation, IDA resources were insufficient to cover the rehabilitation of the entire stretch of road in the North. Similarly, the Bank devoted major efforts to spearhead dialogue with the donor community on road maintenance. Finally, one of the MDOD (CECI) in the North was very successful in mobilizing

additional funding from both the CIDA and USAID for the funding of the micro-regional plan by establishing strategic alliances with some of their projects.

b) Internal factors

42. The following were important internal factors that influenced project implementation:

- 1) *UCE and BMPAD implementation capability*: Initially, UCE and BMPAD had limited exposure and experience with externally-funded projects, particularly Bank projects, and were little equipped to handle large complex projects. They had to build their capacity to do so. However, as their responsibilities increased during the project implementation period, due in part to the dramatic events that unfolded in the context of Haiti, UCE and BMPAD became overstretched, and experienced organizational and management issues. In addition they experience the following difficulties: (i) UCE had limited understanding of its overall project management and coordination functions; this lack of experience, coupled with insufficient communication with BMPAD, resulted in the quasi-absence of aggregate reporting for the project as a whole; also, whilst UCE had excellent technical expertise, it had limited knowledge of the strict fiduciary requirements required under Bank projects; and (ii) BMPAD was created to convert in-kind development aid into cash for the Treasury; it had little experience initially of the type of operational subprojects TTDP was promoting under Component 2, and little understanding of the Project's supervision and monitoring needs; to its credit, it did strengthen rapidly its capability in that area through the recruitment of staff specifically dedicated to TTDP; consequently, Component 2 management did not suffer excessively;
- 2) *MDODs' delivery capacity*: Both MDODs were strong entities with long-standing experience in Haiti and in TTDP-type subproject design and implementation. The MDODs carried out their contracts in a professional and competent manner and achieved excellent results under Component 2; and
- 3) *SMEs' capacities and cost-effectiveness*: The spot improvements required under Component 4 were relatively small and scattered over large areas. The only solution to execute this type of work in a cost effective manner was to rely on SMEs. TTDP achieved that result successfully taking advantage of the fact that the SME sector was developing and ready to engage in small contracting jobs.

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

43. **Design.** The monitoring arrangements as described in the PAD were in accordance with generally acceptable practices. They included the establishment and operation of a Management Information System (MIS), technical audits, monitoring and evaluation reports. They also made provision for the following impact evaluation activities under BMPAD's responsibility: (i) a baseline survey to set the reference values for the results framework indicators; (ii) a Mid-Term Review assessment, including the update of the indicators; and (iii) an end-of-project impact assessment. The management information system proposed was too ambitious considering the low capacity in place at design stage and has led to implementation issues.

44. **Implementation.** The proposed arrangements, however, promised more than UCE and BMPAD could deliver. Monitoring and evaluation turned out to be a weak subcomponent. UCE did invest in a MIS but never used it because of internal data transmission problems. A new MIS system became operational in December 2012, too late to be useful for project monitoring. This MIS is now used for the Bank's PROREV, PRUII and PRGRD that continue to be managed by UCE. BMPAD encountered similar problems. In fact, the monitoring of Component 2 came to

depend almost entirely on data collection and reporting by the MDODs. Moreover, BMPAD did not have the capacity internally to undertake technical audits of subproject. It neither recruited technically capable auditors, nor commissioned independent technical audits. Therefore the technical review of the portfolio was not undertaken systematically. Issues with problem subprojects were discovered and resolved in a somewhat *ad hoc* fashion.

45. **Baseline survey (2007).** A survey was conducted in late 2006 (with report completed in early 2007) to inform the indicators of the results framework as far as their initial value stood at project start-up. This survey was not sufficiently thorough in two ways: (i) it did not evaluate the reference situation in areas outside the project area: therefore the ‘double difference’ methodology could not be used in later surveys since there was no hard data on the initial reference situation; and (ii) it did not evaluate precisely some of the indicators, particularly the PDO indicator relating to transit losses. The above deficiencies created shortcomings for the impact evaluation conducted at project closure (see para 46 below).

46. **Mid-Term Review (MTR).** The MTR was originally scheduled for mid-2009. This happened to be the time of the launch of Component 4 following the deadly 2008 hurricanes. Project attention at the time was diverted from the initial project activities to the new disaster-related activities. The MTR was therefore rescheduled for beginning 2010 which happened to be the time of the earthquake. Given the disarray that prevailed at that time, the MTR mission was simply cancelled. The baseline survey that had been prepared at project inception was not updated as this had been originally planned, and no special MTR evaluation report was prepared. In retrospect, the lack of an MTR was not a major problem, since, for the project restructuring and subsequent preparation of the AF, the project team had to take fully stock and report on implementation progress. The AF project paper de facto served as the MTR report.

47. **Impact evaluation (2013).** The project’s ex-post impact evaluation report was of reasonable quality. The report was prepared within a limited timeframe by independent consultants, only a few weeks before project closure. The report was based on the survey of a purposely-selected sample of about 800 respondents and focus group interviews in the project zone. The survey data was useful to inform the main indicators, but, since no reference group outside the project zone was surveyed, it did not provide information based on the ‘double difference’ approach (with vs. without project situation). The report collected most of the basic data required (traffic volumes with composition of the fleet using the rehabilitated roads, cost of transportation, travel time, etc.) However, it only collected qualitative data through the focus groups on transit losses. Collecting hard data on that topic was complex and more time would have been needed that was not given to the consultants. And no data had been collected as part of the baseline survey so that comparison with the initial situation would have not been possible. The additional value of the consultants’ intervention worth mentioning is that it reflected the impartial opinion of independent experts who visited the field and spent time with the communities impacted by the project. BMPAD did not organize workshops to discuss the results of the impact evaluation and draw lessons from project implementation and monitoring.

2.4. Safeguard and Fiduciary Compliance

48. **Safeguards.** The safeguard policies that applied to the project were Environmental Assessment (OP/BP/GP 4.01), Forests (OP/BP 4.36), Cultural Property (OP 4.11) and Involuntary Resettlement. The potential adverse impacts from TTDP investments turned out to be minimal. For Component 1 and 4, the engineering studies regarding the detailed road and spot interventions paid due attention to environmental and social aspects. For Component 2, BMPAD with MDOD assistance focused on: (i) upstream screening of all subprojects to weed out those with potentially more serious environmental impacts, and (ii) awareness-raising with beneficiary

populations at communal level. Given the relatively small portfolio of subprojects, BMPAD's safeguards team proved capable of aptly following up on safeguard obligations related to subprojects.

49. **Procurement.** UCE recruited a procurement specialist at the onset of project implementation and subsequently complied with all the procurement requirements of the Operational Manual. The various ex-post procurement reviews did not identify any significant misprocurement issues. All road contracts were awarded based on competitive bidding, with the exception of the road stretch from Carrefour La mort and Barrière Battant. For this stretch only one company submitted a bid. Rather than cancelling the bidding process, it was decided that the project would negotiate unit prices with the bidder. The contract was awarded after negotiations over unit costs. The two MDOD contracts were awarded on a competitive basis through a quality and cost-based selection procedure. The communes were not directly involved in procuring items and services required for subproject implementation. MDODs were given that responsibility, per their contractual obligations as operators with delegated responsibility over implementation. Subproject procurement was achieved through competitive bidding and/or price comparison procedures (shopping) depending on the thresholds agreed in the Operational Manual. The MDOD were conversant with Bank procedures and no difficulties were encountered in the procurement process.

50. **Financial Management (FM) and audits.** During most of the implementation period financial management was problematic. UCE did not have strong financial planning and budgeting skills. Submission of financial audits was often late and action plans addressing audit conclusions were slow to be developed and implemented. Financial management was corrected as part of an overall measure designed to strengthen UCE capability in that area. By project end, the following results showing significant improvement in financial management had been obtained: (i) financial monitoring and audit reports did not experience significant delays; and (ii) comprehensive financial reports aggregating both UCE and BMPAD accounts were submitted.

51. **Project costs.** Total final project cost was about US\$27.4 million, i.e., an increase of about 71 percent over the original estimate. This increase is partly explained by the new disaster-relief activities under the Component 4 following project restructuring, but also by cost escalation for road rehabilitation work under Component 1. Costs for that component were clearly underestimated at project appraisal. Similarly, under Component 2, the cost of MDOD assistance turned out to be 70 percent higher than anticipated because of the cost structure under which international NGOs operate. The cost escalation was covered by a decrease in sub-project investments so that the overall cost of Component 2 did not change. 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, even though the volume of activities following project restructuring had greatly increased. This testifies that the Project was especially cost-effective regarding overall administrative and management activities.

2.5. Post-completion Operation/Next Phase

52. In the absence of specific request by GOH, the Bank decided not to continue the TTDP in the form of a follow-on project. But a new Bank project – the proposed Center and Artibonite Regional Development Project (FY14) currently being processed -- is building directly on the territorial development approach spearheaded by TTDP. Another project -- the Cultural Heritage and Sustainable Tourism Development Project (FY14) also being processed -- borrows from TTDP Component 2, as part of its approach to use the major investment in rehabilitation of historic assets as anchor to promote broader socio-economic development at communal level. These projects are creating a major vehicle for sustainability of the TTDP concept and long-term

Bank engagement with transport and territorial development in Haiti, successfully applying many of the lessons learned from TTDP.

3. Assessment of Outcomes

3.1. Relevance of Objectives, Design and Implementation

53. **Relevance of PDO.** The PDO to lower marketing costs for small producers in the two selected micro-regions was relevant at project inception and remained relevant at project closure. Haiti is still a country relying on the rural sector and agricultural production for employment, growth and poverty alleviation. Hence the need for all measures that can promote rural and agriculture development. Additionally, better infrastructure at local level can go some way to mitigating rural to urban migration and avoiding the congestion of large urban centers. In all the above, the project supported directly or indirectly all four pillars of the TGOH's ICF.

54. **Relevance of Design.** The design of the project, based on a customized version of the Bank's Peru Rural Roads, has proven to be relevant and robust in the context of Haiti. This context is characterized by high risks stemming in part from recurrent disasters. TTDP's approach focused on the main infrastructure investments (with roads as a priority) and spot interventions centered on micro-regions, coupled with territorial planning and participatory identification of local investments. This approach has proven to be relevant for long-term sustainable regional growth and development, and also to address climate-related risks which are a recurrent feature of Haiti's environment. It has provided very positive results reflected in the valuable infrastructure and spot interventions implemented at micro-regional level, and subprojects implemented at local level with enhanced community participation, transparency and accountability. The micro-regional level of intervention proved the right one, allowing to tackle structural transport issues in alignment with national and regional priorities, and concurrently to address local needs in participation with the local population. With the post-earthquake reconstruction now almost completed, the Government's focus is on medium-to-long term sustainable development. TTDP provides a valid approach aligned with the current GOH's strategy that consists of providing planned infrastructure and related 'structuring' investments combined with locally identified and managed socio-economic investments. Concerning local investments, as GOH has still not published the decentralization decrees, there are de facto no alternative ways to channel resources to the rural areas than relying on ad hoc Consultation Tables (CTs) or similar type institutions to work with the communes. This mechanism is a means to elicit participation and ownership, in a context where communes still do not have the required authority and resources to implement local investments directly themselves.

55. **Implementation strategy.** The questionable parts of the implementation strategy has been the reliance on independent entities -- a PCU (UCE) and an autonomous body (BMPAD) -- as opposed to line ministries, and on ad hoc mechanisms, such as the Consultation Table (CT). Additionally, TTDP relied as well on two international NGOs (MDODs) and on private service providers and contractors for project execution. In the context of Haiti, this approach has proved a wise course of action given the weakness of both the central administration, and the local governments in the absence of a decentralization framework. Although there are improvements in the capacity of central government institutions, the contracting of private and NGO service providers for project implementation remains relevant. The central Government is insufficiently organized to implement development programs in rural areas, and municipalities have neither the authority nor the funding to do so. Project implementation required competitive outsourcing to

both large and medium-scale enterprises, as well as international NGOs. Concerning the contracting of road works, the following aspects came to be recognized: (i) large enterprises were interested only by the larger contracts; the project therefore had to resort to SMEs for spot interventions; it did that with success; and (ii) the contracting of international NGOs proved quite onerous, as they have to establish offices, employ staff and have significant overheads. Overall the project's implementation strategy remains relevant also as a response to the lack of capacity of both central and local governments. The 'parallel' ad hoc project structures were meant to fulfill immediate needs for the sake of efficiency. They did not prevent TTDP from working hand in hand with core line ministries in particular MTPTEC, or local governments notably communes and communal sections. As a result there was good coordination and alignment with public sector initiatives.

56. On the above basis, the ICR concludes that the PDO, design and implementation were and remain relevant.

3.2. Achievement of Project Development Objectives

57. **Methodology.** The PDO assessment is based on the results of a survey conducted just before project closure in June 2013. The survey combined interviews of respondents from a sample of purposely-selected respondents and resource persons (800) and random interviews of truck drivers at market places (120) during market days, with focus group interviews (12 groups of 18 respondents each). The survey aimed to collect data on PDO indicators, i.e., transport and travel costs and travel time, as well as traffic level (this latter being a result indicator for Component 2). It also aimed at collecting data on the impact of rehabilitated roads on livelihood conditions, and the overall satisfaction and appreciation of respondents regarding both the road improvements under Component 1 and the participatory planning and investment selection under Component 2. The objective was to compare the current data with the data collected as part of the baseline survey conducted at the beginning of 2007. The survey was administered in the two micro-regions only. Therefore it did not provide any results on the impact of Component 4 aimed at spot interventions outside the micro-regions (mostly in the department of the South-East, South and Grande Anse).

58. **PDO Indicators.** The impact evaluation concluded that the project impact had been extremely positive. Transportation costs (PDO Indicator 1) have experienced a dramatic decrease. In constant 2007 terms, transportation costs have been cut in half on the road segment from Thiotte and Anse à Pitre for coffee and cereals in the South-East and by 65% for passengers; in the North the decrease in transportation cost for beans is only 12% between St. Raphaël and Cap Haïtien and 43% for passengers. The travel time (PDO Indicator 2) on the stretches of road that were rehabilitated has similarly improved dramatically. The improvement is most remarkable on the stretch of road from Thiotte to Anse à Pitre (about 40km). Trucks used to take around 6 hours due to the abysmal condition of the road; they now take 2 hours only or a decrease in travel time of about two thirds compared with the pre-project situation. In the North the decrease in travel time is not as dramatic given that only a small stretch of road was rehabilitated (8.5km). Nevertheless travel time was cut in half between Cap Haïtien (the nearest large city) and Milot. The two stretches of roads rehabilitated are now passable year round (PDO Indicator 3) when they were impracticable several weeks yearly prior to rehabilitation. Finally, the qualitative data that were collected on transit costs (losses) (PDO Indicator 4) as part of the focus meetings and interviews with resource persons during the impact assessment survey indicate that for perishable goods (fruits and vegetables produced by small farmers) these costs are estimated to have decreased by over 30% (beneficiary survey). This is not surprising given that the decrease in

transit losses is positively correlated with the decrease in travel time and the improvement in the quality of transport.

59. **Other indicators.** A prominent result indicator (Component 1: Result Indicator 5) was the increased traffic on the roads rehabilitated under the project. Traffic data were collected at project closure as part of the impact study. However, they could hardly be compared to the pre-project situation because the composition of the fleet using the stretches of roads rehabilitated had changed dramatically. Motorbikes had become the prominent means of transport, followed by light vehicles (pickup trucks and minibuses). Large trucks only accounted for a small fraction of the traffic, whereas, given road conditions, they accounted for the quasi-totality of the traffic at the time of the baseline survey (2007). Based on reliable informants interviewed during the impact study, it is clear, considering overall numbers, that the traffic had increased substantially in the North and dramatically (several fold) in the SE, especially for motorcycles, way above the 20 percent target set for that indicator.

60. Development Objectives rating was considered by the team as satisfactory for the most part of project implementation, considering that a convention between the MTPTC and FER was expected to be prepared and signed timely to perform road maintenance and light spot interventions following Sandy’s impact on the southern stretch. The convention was prepared but too late to allow proper execution of the works before the closure on the project. DO rating was downgraded on the last ISR to reflect this situation.

3.3. Efficiency

61. The analysis of the efficiency in the use of resources and cost effectiveness is based on the following core aspects of project implementation: (i) the unit costs of road rehabilitation; (ii) the administrative costs both for the Project as a whole and for Component 2; (iii) the use of resources for subproject implementation; and (iv) the delays incurred in project implementation.

62. **Unit costs of roads.** At the onset of the project, the unit cost of road rehabilitation and spot improvement were extremely high. This was due to the fact that large enterprises, in the difficult business context of Haiti, had heavy costs of mobilization for relatively small contracts. As project implementation unfolded, especially following the restructuring, it became clear that public works SMEs had developed their capacities, and, for the same quality standards, had costs ways lower than large contractors (see Table 3 below). With the support from the Bank, and following commonly accepted practices internationally, UCE developed suitable procurement rules to contract SMEs. This process was extremely successful to the extent that the bulk of contracts for Component 4 were awarded to SMEs. In turn, this grew to be a major factor for the promotion of national SMEs and attendant generation of employment.

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

63. **Administrative costs.** The administrative costs incurred by UCE for overall project administration and management were reasonable compared to the amount of investments on the ground. Disbursed amounts regarding Component 3 were actually lower than initially estimated (88 percent) although additional activities were incorporated into the project; they represented a low 5.5 percent of total project costs. This bears testimony that overall the project was managed in a cost-effective way. For Component 2, the cost of support for subproject planning and implementation as a percentage of the entire component cost was moderate compared to similar projects. In rough terms, for every US dollar invested in subprojects, an additional 65 cents was disbursed for participatory planning, training and capacity building, and for administration, technical follow-up and assistance by MDODs and BMPAD. This compares well with PRODEP¹, since, in that project, for every US dollar invested in subprojects 86 cents were used by the MDODs and BMPAD. Although TTDP is hard to compare to PRODEP, it can be concluded that Component 2's administrative and technical support has been cost-effective. Also, in the case of TTDP, this is mitigated by the fact that the funds spent for Component 2 on planning helped mobilized additional resources. Therefore, the ratio of administration costs vs. total subproject investments should be more favorable.

64. *Prima facie*, the ratio of the costs of technical support and administration vs. total project costs or costs of investments on the ground may appear high. However, experience has shown in this project and other projects financed by the World Bank that strong external support has helped build limited local institutional capacity. Projects and MDODs have to set up offices, recruit staff, and purchase ample operational equipment. In this respect, the cost of doing business has increased markedly in recent years, especially since the 2010 earthquake that mobilized a lot of resources for reconstruction and pushed up the cost of goods and services. BMPAD reports that its costs have increased by an annual 12 percent over the life of the project, mainly through the increase in the number of consultants (staff) and remuneration (25 percent growth per year) as well as a 17 percent annual growth in operating costs. The two MDODs contracted by the project were international NGOs: the Canadian Center for International Studies and Cooperation (CECI) and Agronomes et Vétérinaires sans Frontières (AVSF). These NGOs had significant overheads (13-15 percent of the contract amount) which increased costs far above the costs of local NGOs. Working through local NGOs would have been more economical but their implementation capacity would have been insufficient.

65. **Sub-project technical and economic results.** As the subprojects were selected through a transparent and competitive process amongst a list of proposals previously-established on the basis of participatory planning there is no doubt that they addressed local needs. The question is whether the selected subprojects were technically and economically sound, and reached their objectives of improving the living conditions (water, roads, electricity) or generating employment and income generation. Data on subprojects' operational efficiency, sustainability and usefulness for comparable municipality support programs in other fragile states are hard to come by. There is no doubt that, in the context of TTDP, the money was used for the purpose for which it had been intended. All bidding processes were organized by the MDODs and contract award had to be vetted by BMPAD and further approved by the Bank. For each project, a management committee comprising prominent members of the communal population had to be established to monitor work progress. Based on the individual technical audits conducted by the MDODs and BMPAD, about 80% of subprojects were successful (e.g., paving of streets in Thiotte, installation of solar street lighting, slope conservation agriculture in Brostage, cementing of road bands to access Tet Plak from Forêt des Pins, electricity supply and distribution in Bahun, etc.) The

¹ PRODEP Project Implementation and Results Report, December 2013

remaining projects, for different reasons, were less successful (e.g., fruit and vegetable market at St. Raphaël: this market was not used as it should have been due to the construction of a nearby larger general market; training of young people in tourism activities: few of the young trainers found jobs in the tourism sector because of lack of tourism development; or cassava processing that fail due to unfortunate failure of the equipment).

66. One factor that accounts for success or failure of the types of sub-projects implemented under TTDP, is undoubtedly the degree of follow-up on the part of the implementing agencies. The lack of attention in particular to cost-recovery to cover operating, maintenance and possibly renewal costs is generally a major issue. At the outset, the first TTDP subprojects were envisioned as tests ('sous-projets d'accrochage'). At that stage, project management, both BMPAD and the Bank, were more concerned with ensuring a transparent and systematic planning and selection process for subprojects than with subproject technical and economic feasibility. Later on more attention was placed on looking at issues such as the organizational structure underlying the subproject as well as cost-efficiency parameters required to ensure long-term sustainability.

67. **Implementation delays.** There were major implementation delays of 2 to 3 years for implementation of Component 1. Road improvements were only completed in late 2010 in the North and early 2012 in the South-East. These delays were due in part to delays experienced in procurement and preparation of the detailed engineering studies and delays in contracting the firm for road works in both micro-regions. In addition, delays were compounded due to the following factors: (i) in the northern micro-region, the length of time it took for the Bank and the other partner agencies (AFD and EU) to agree on a funding strategy for RN3; and (ii) in the south-eastern micro-regions, the length of time it took for the Bank and the Government to agree on the final options for road rehabilitation (road coverage, single vs. double lane, etc.) Clearly, the 2007/2008 storms and hurricanes and the 2010 earthquake were also huge additional factors in the delays experienced in project execution, even though none of the micro-regions were physically affected.

68. **Economic evaluation.** Table 4 below shows how the re-computed ex-post NPVs and IRRs for the two stretches of roads rehabilitated under TTDP in the North and South-East micro-regions compare with the results initially estimated at appraisal.

Table 4 - Ex-ante vs. ex-post results

	Ex-ante	Ex-post
NPV North (US\$ million)	4.7	1.7
NPV South-East (US\$ million)	0.58	0.35
IRR North	39%	14%
IRR South	15%	11%

69. The lower than expected results at project closure are explained by the large underestimation of the road rehabilitation costs at appraisal and the long delays experienced in the completing the road rehabilitation work. This is explained also by the overestimation of the benefits (other than the decrease in Vehicle Operating Costs) in the case of the Thiotte – Anse à Pitre micro-region (South-East). The induced impact on the coffee economy did not materialize because of the diseases crisis, clearly totally unrelated to road conditions, that this sector has experienced in recent years. In the North, the discrepancy of the results is largely explained

also by the fact that only 8 km of roads were rehabilitated (as opposed to 38.8 km), the remainder awaiting the intervention of the EU.

3.4. Justification of Overall Outcome Rating

Rating: **Moderately Satisfactory**

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

- **Relevance:** The PDO, design and implementation were and remain relevant however the fragility of the country could have been taken into account better to offer more flexibility during implementation;
- **Efficacy:** The PDO, as measured by the PDO indicators, shows a substantial level of achievement except for road maintenance envisioned pilot's activities; and
- **Efficiency.** The project was generally implemented in a cost-effective way regarding unit costs and costs of administration, management and technical support. Overall, sub-projects resulted in good technical and economic results. Implementation delays for road rehabilitation were clearly a negative factor; but they permitted better coordination with other partners and adequate adjustment of TTDP's scope of work.

3.5. Overarching Themes, Other Outcomes and Impacts

(a) Poverty Impacts, Gender Aspects, and Social Development

71. **Poverty Impact.** The project's objective to increase access of small producers to market services and productive assets was expected to have a positive effect on income for the poor. In the context of Haiti, road rehabilitation and spot improvement undoubtedly served their assigned purpose, i.e., to enable the populations not only to access markets but also to access basic social services. While most subprojects generally had no direct impact on cash income, they had an impact on the living conditions of the poor. In rural areas and small towns, connection to the electric grid, street paving and lighting, rehabilitation of market places, upgrading of small tracks making them passable year round, etc., are all factors that improve the livelihood conditions of populations.

72. **Gender Aspects.** TTDP can be considered as a gender-oriented project. Roads rehabilitation served the purpose of both men and women, but probably more the purpose of the latter since it facilitated access to markets, bearing in mind that women in Haiti are the ones who handle marketing activities. Under Component 2, the MDODs made a serious effort to promote gender-friendly subprojects. They ensured that women were included in the subproject committees and in Consultation Tables. Many subprojects provided training and employment to women and men alike (e.g., training for tourism activities in the North), others were geared specifically to serving the needs of women (e.g., the construction of market places).

73. **Social Development.** The impact survey conducted at project closure covered in some detail TTDP's main social development achievements. It bears testimony that the degree of satisfaction of intended beneficiaries with these achievements was high. This included a positive impact on access to social services, as well as awareness, empowerment and capacity building of local communities as a result of the MDODs' outreach activities. In this regard, the project introduced a fundamentally new approach to working collaboratively through the CTs for the benefit of the entire local population, as opposed to promoting individual and specialized interests.

In this sense, it expanded the number of stakeholders involved in decision-making and promoted empowerment at the grassroots. Typically, the communes proceeded to select their own subprojects in a participatory way and bargained amongst themselves to get their own priorities accepted at micro-regional level. In doing so, the project aided in conflict resolution and certainly gave a voice to the poor. MDODs managed the process closely in a transparent way so that elite capture would be avoided.

(b) Institutional Change/Strengthening

74. TTDP earmarked substantial resources to strengthen institutions such as UCE and BMPAD, as well as FER for road maintenance. At local level, capacity building of the CTs and municipal authorities was an important objective assigned to MDODs, and, in that sense, the project had a discernible impact on social capital and institution building. The project relied on ‘project-type’ structures outside the core administration and on private and NGO-type service providers. It did not have the objective to mainstream these structures or to strengthen the core administrative services. Hence, the latter did not receive any capacity building on the part of the project with the exception of the Departmental Directorates of Planning in the two micro-regions which received US\$50,000 each. At the local level, the project did provide capacity building to communes through the MDODs’ outreach activities. There was unfortunately neither an evaluation of knowledge transfer nor follow-up as to whether or not the knowledge was applied. No funding was earmarked directly for communes to increase their operating capacity (no funding of equipment and no contribution to operating expenditures).

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

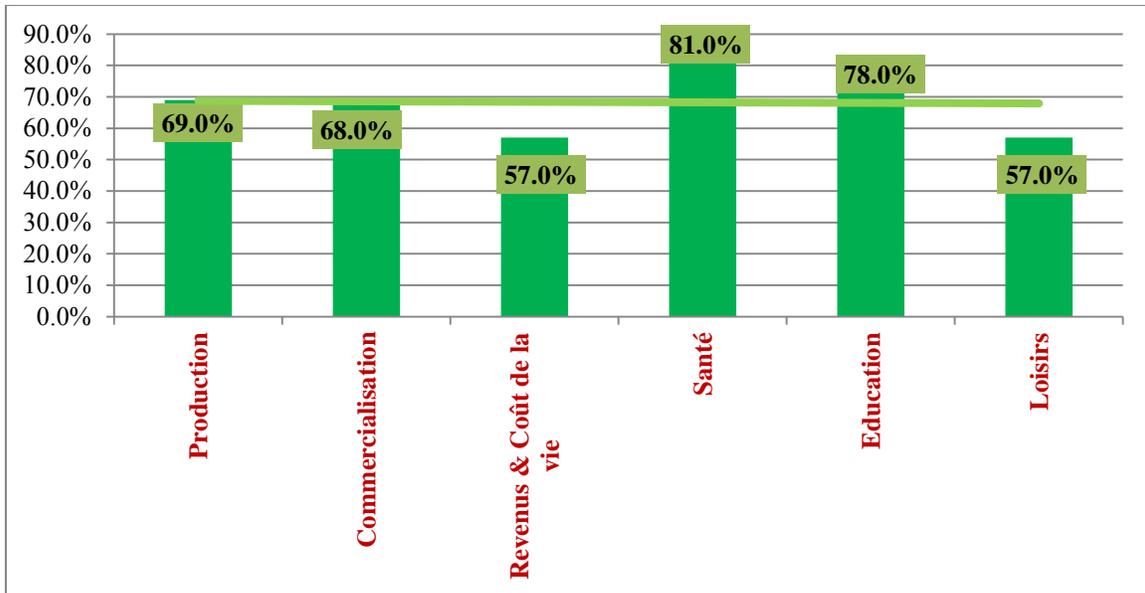
N/A

3.6. Summary Findings of Beneficiary Surveys and/or Stakeholder Workshops

75. Stakeholder workshops were organized at project preparation and launch in 2005 and 2006 in each micro-region as one-shot type exercises. They served to inform the project design and start-up process. Subsequently, implementation workshops were carried out regularly at communal and micro-regional level as part of Component 2 implementation under the aegis of the CTs with the assistance of the MDODs. They served to inform the preparation of the communal and micro-regional plans as well as the selection the subprojects. As an additional benefit, since Component 1 came to experience long delays, the workshops organized as part of Component 2 also served to explain issues related to road improvement, and manage expectations regarding the timeline for road construction. A beneficiary assessment was conducted at project closure as part of the project impact study carried out in June 2013. The beneficiary assessment employed a variety of methodologies including individual interviews, and meetings with focus groups in the two micro-regions. For lack of time, it did not cover the project zones of Component 4 interventions.

76. Graph 1 below summarizes the overall beneficiary satisfaction rates as assessed as part of the project ex-post impact study:

Graph 1 – Beneficiary Satisfaction Rate



Source: PTDT Impact Assessment, September 2013

77. The beneficiary survey took place through individual interview with 800 project beneficiaries and meetings with 12 focus groups (18 members on average or about 216 respondents in total), both in the northern and south-Eastern micro-regions. The results were as follows. The overall satisfaction rate with the project is 68% (50% for the North and 87% for the South-East). The relatively low rate for the North is due to the fact that only a small part of the RN3 (8.5 km) of the stretch from Carrefour Lamort and St. Raphaël (total 38.5km) was rehabilitated as a result of the Bank agreement with EU. At the time of project closure, the remaining part of the road was still in extremely bad conditions since the EU had not started the road works yet. The TTDP also reconstructed the bridge on the RN3 over the Brouhaya river that has permitted year round passage (previously vehicles had to go through the river bed to cross the river). The satisfaction rate with the participatory planning process and corresponding subproject financing (Component 2) was 73% on average with difference between the North (58%) and the South East (89%) similar to that for roads improvements. The paving of Thiotte and the environmental conservation project of Brostage (contour farming) received the highest marks. Two subprojects that had less success (St. Raphaël vegetable market and the Milot artisanal market) contributed to the lower rate of satisfaction in the North, all the more because they are highly visible.

78. The beneficiary evaluation also illustrated the effects of improved roads in helping the rural population to access basic services particularly education (78% of satisfied respondents) and health (81% of satisfied respondents). Finally, the evaluation showed positive effect on employment and income generating activities (69% of satisfied respondents) and leisure (57% of satisfied respondents).

4. Assessment of Risk to Development Outcome

Rating: Substantial

79. The project has had major achievements and reached its objectives in terms of road rehabilitation (Component 1) and spot improvement (Component 4). One of these achievements is the promotion of local civil work SMEs. These enterprises were able to compete successfully with large national and international contractors both in terms of costs and work quality. They

are expected to continue expanding in the future. The availability of funding for road improvement is probable given the willingness of the donor community to squarely tackle the investment needs in infrastructure development and maintenance, including disaster-related work. The project was also successful in tackling issues related to the maintenance activities. It developed FER's capacity and supported the application of the legislation designed to establish the listing of priority roads to be maintained and give FER the corresponding resources required. This has supported FER as the fundamental mechanism for funding road maintenance. The FER is now an established institution that has the required operating capacity. Each year, the priority list of roads to be maintained is updated. Maintenance contracts are outsourced and managed by FER. FER's financial resources are secured to the extent that they are earmarked on certain items like gasoline sales. One issue that remains to be resolved is the still low level of funding granted to FER which is inadequate to cover all its assigned road maintenance priorities.

80. Concerning Component 2, without a follow-up project and/ or technical assistance by MDODs or other NGOs, a significant fraction of the subprojects are at risk of not being able to operate and be maintained properly. Consequently, their benefits may wane. Similarly, if additional funding is not forthcoming, the civil society institutions supported by the project (such as the TCs) may not survive. In this regard, the Government has still not decided on options for decentralization. There is undoubtedly a vacuum to be filled in that area, especially in view of the fact that (long overdue) local elections are upcoming (end-2014). A positive note is that, as part of the Bank PRODEPUR AF, support is envisioned on the topic of decentralization. In spite of the current institutional and regulatory vacuum, however, TTDP has given the communes a working experience that has increased their skills and improved their performance with attendant sustainable progress in local governance, transparency and accountability. The Project has undoubtedly represented a valuable local development experience that will most likely leave some institutional capacity behind. In fact, two Bank projects currently being processed are building on TTDP's experience with transport and territorial development: the Center and Artibonite Regional Development Project and the Cultural Heritage and Sustainable Tourism Project (both FY2014).

81. In view of the remaining uncertainties concerning road maintenance, and the sustainability of subproject investments in the absence of a decentralization framework, the risk to the project 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: Moderately Satisfactory

82. Project design was sound and based on the Bank's longstanding experience with rural roads *inter alia* in Peru. The design also benefited from the experience of other donors in Haiti (UNDP, Canadian and French cooperation) regarding participatory planning. The project objectives aptly addressed the country's needs and were attainable. The territorial planning methodology proved robust, and was implemented as designed. The project design permitted to accommodate the disaster-related component incorporated at project restructuring with no need for modification of the basic project concept. The use of local contractors for spot interventions proved very successful in terms of work quality and cost, and for the promotion of civil work/engineering SMEs. The use of international MDODs as main operators for Component 2 had a very positive impact on field implementation, included strict adherence to fiduciary conditions. The use of an ad hoc structure, the TCs, was well adapted at the time where local authorities were yet to have

the required credibility and operational means. It permitted to work hand in hand with communal authorities. In the interest of expediency, the Bank acted as the prime mover behind project design and implementation. Such a stand was wise. It is the normal case with donors in Haiti given the weakness of core government administration.

In spite of its prima facie good performance, the Bank's performance regarding quality at entry displayed some shortcomings: (i) whilst PDOs were relevant, a couple of indicators were not sufficiently realistic in the sense that they proved difficult to measure accurately in the rapidly changing context of Haiti transport sector (traffic volumes expressed as one single indicator in the face of the dramatic change in fleet composition, and transit losses similarly expressed in general terms in the context of a very diverse and non-homogeneous set of goods to be transported); (ii) road rehabilitation costs were somewhat underestimated; (iii) the potential for using SMEs was not given all the importance it could have; (v) the project design did not provide for sufficient flexibility in terms of reallocation of the funds earmarked for road maintenance.

(b) Quality of Supervision

Rating: Moderately Satisfactory

83. The Bank team conducted 17 formal supervision missions, on average two supervisions per year. These missions always included the participation of the Bank's fiduciary specialists, and, as required, the Bank's environmental and social safeguards specialists. It is worth noting that, since 2011, the TTDP TTL (also appointed as SDN coordinator) has been based in Haiti. This has permitted the Bank to provide the day to day implementation support and provided sustained contacts with the government services and the executing agencies, UCE and BMPAD, especially since these latter were handling several Bank SDN projects.

84. Bank supervision focused on regular project operating issues, including technical and management issues. Several hotly debated technical issues concerned the options for road rehabilitation and spot improvement work. This proved particularly challenging for the south-eastern road stretch, as, beyond the basic unpaved option that had been decided at project design, the exact work specifications remained to be decided. Also challenging, and widely debated, was the option of using small local contractors. Supervision missions also served as basis to prepare the restructuration plan and subsequent additional financing (AF) operation. The supervision and AF preparation missions aptly overlapped during that period. The restructuration that took place at about the mid-term of project implementation was the occasion to take stock of the status of implementation at that time, obviating the need for a formal MTR. Also a lot of supervision time was devoted to liaison and coordination with donors. This proved successful for the northern road stretch, as agreement was reached between the Bank, AFD and EU regarding their respective roles in rehabilitating RN3. As a result of these agreements, the Bank took charge of all the preliminary engineering studies, as well as a 8.5 km stretch of road and a major spot improvement (the bridge between Dondon and St. Raphaël).

(c) Justification of Rating for Overall Bank Performance

Rating: Moderately Satisfactory

85. The Bank team supervised the project closely all along implementation. The decision to base the TTL in Haiti permitted to reinforce the quality and intensity of the dialogue over project implementation. The Bank team made every effort to coordinate with donor partners and incorporate lessons learned into project implementation on a rolling basis. It took advantage of the supervisions missions to aptly restructure the project at the time resources were needed for disaster-related activities. In that sense it displayed agility and responsiveness in serving the needs arising from emergencies leading to the restructuring of the project and subsequent

granting of additional financing. The team also placed special emphasis on engaging the Government and the implementing agencies in strategy and policy dialogue on road improvement, road maintenance and local development in Haiti.

86. However, the team performance could have been stronger on several counts: (i) the team did not react sufficiently in terms of reallocating funds for road maintenance, (ii) it failed also to readjust in an appropriate way one of the most critical PDO indicators that were too complex to be monitored in the context of project implementation; and (iii) it failed to hold the MTR: Even though this is excusable in the context of the dramatic events that took place, the Bank team should have insisted to have a formal review including the preparation of mid-term impact evaluation.

87. On account of all above considerations, in balance, the Bank overall performance for TTDP supervision is rated moderately satisfactory.

5.2. Borrower Performance

(a) Government Performance

Rating: Moderately Satisfactory

88. The Government proved capable to take full project ownership both at project design stage and as execution unfolded. It was a strong partner. However, due to the relative weakness of implementing agencies, significant implementation support was required from the Bank. UCE and BMPAD were not as responsive as expected to the Bank's efforts for project supervision, and implementing the Bank's recommendations for improving performance was challenging at times. As a result, these efforts had somewhat limited impact on improving project implementation quality. The situation improved during the final months, as the project was nearing closure. The implementing agencies heeded the Bank's advice to properly handle the technical and management issues that had been flagged and set the conditions for closure, which included the wrapping up of the financial accounts, the preparation of the Project Completion Report and the administration of the Project Impact Survey. The above-described performance of UCE and BMPAD is not unusual considering Haiti's low capacity and weak institutional context. However, this was exacerbated by the devastating impact of the earthquake of 2010, which killed one out of three civil servants, many in middle management and collapsed many government buildings.

(b) Implementing Agency or Agencies Performance

Rating: Moderately Satisfactory

89. **UCE and BMPAD.** UCE was the lead agency in charge of overall project coordination and responsible for Component 1 and later Component 4. BMPAD was responsible for Component 2 as well as project evaluation. Their role was to handle the following main tasks as part of their specific project implementation responsibilities: (i) procurement and financial management; (ii) contract management, including road engineering and construction contracts and MDOD contracts; (iii) day-to-day field supervision; and (iv) monitoring and evaluation through a management information system (MIS), with the attendant preparation of quarterly reports, bi-annual audits and ad hoc impact evaluations.

90. UCE/BMPAD's management performance was weak at the onset, but improved as project implementation unfolded as per supervision recommendations. Procurement reviews were generally satisfactory but financial management often unsatisfactory mainly because of insufficient budgetary planning. The financial audits were prepared by qualified external auditors;

they were generally of good and unqualified but late at times. Task (iii) was hampered by BMPAD's lack of staff following the earthquake; the high-level staff in charge of Component 2 was not replaced. For task (iv) UCE/BMPAD did not introduce an operating MIS until very late in the project, and, hence, M&E was of generally of insufficient quality. For Component 2, the monitoring was essentially based on information provided by the MDODs. The progress reports were of reasonable quality but often late. A major problem was that UCE and BMPAD performed all the above tasks separately at their own level with insufficient coordination between themselves. As a result, there was no aggregate reporting for the project as a whole. This reflected UCE's weakness regarding project coordination. Another weakness is the fact that the project evaluation capability was under BMPAD's responsibility, whereas it should have been assigned to UCE. BMPAD prepared the baseline survey, but did not update this survey at the Mid-Term of project execution as planned. UCE show little interest in project impact evaluation until late in the project implementation period. To its credit, the last impact evaluation study, carried out just before project closure, received it full support.

91. **MDODs.** The MDODs carried out Component 2's field activities. As subcontractors, they performed with great competence considering the difficult field conditions and the many negative events that could have hampered their activities, including the natural disasters that occurred during the project period. Per their mandate, the MDODs facilitated the territorial planning process. This resulted in the preparation of the comprehensive micro-regional development plans. These plans proved to be of excellent quality and represented a major achievement. Subsequently, the MDODs guided the systematic and transparent selection process of subprojects, ensured follow-up of subproject implementation including provision of technical assistance and advice, monitored field operations, and supervised the related financial aspects. These tasks were carried out in a fully satisfactory manner. They were well appreciated by beneficiary populations.

(c) Justification of Rating for Overall Borrower Performance

Rating: Moderately Satisfactory

92. Taking into account Haiti's general weak institutional capacity as reflected in the above, and the implementation context of the multiple natural disasters that confronted the project during implementation, the overall performance of UCE, BMPAD and MDODs combined is rated Moderately Satisfactory.

6. Lessons Learned

93. TTDP was meant to carry out road rehabilitation and spot improvement and implement a pilot participatory process of identifying and selecting local investment to capitalize on the benefits of the road and spot investments. The aim was to facilitate access to markets on the part of small producers. The benefits brought about by the rehabilitation and improvement works were predicated on reduced travel time and transit losses, increased traffic and general improvement in the quality of transport. A disaster-related component was added at about the mid-term of project implementation. It did not change either the project objective, or its implementation approach. Based on this rich implementation course where both flexibility and discipline were required, TTDP offers an array of lessons about general project implementation, works execution for rural road rehabilitation and spot improvements, and participatory planning. These lessons are summarized below.

(a) General lessons

94. *Informing and sensitizing beneficiaries, and explaining the project execution strategy, is required if populations are to take full project ownership.* TTDP through a large array of interventions (sensitization campaigns, use of mass media, workshops) was able to promote ownership of project activities by beneficiary populations. In this regard, the execution of Component 2 that started much earlier than the road works under Component 1 offered the opportunity to better explain the road strategy, and hence secure its acceptance by the local populations. This was particularly useful to explain the reduced role of the project in the rehabilitation of RN3 in the North and the fact that a gravel road option had been selected for the road stretch in the South-East as opposed to a paved road. Under Component 2, the fact that it was implemented under fully transparent conditions, including release of information and rendition of accounts, avoided the capture of resources by local elites to pursue their own individual goals; it prevented also that the TC be used as platform by local politicians to promote their partisan views and further their political agenda.

95. *Combining road rehabilitation (or other infrastructure improvement) with local investments can improve the impact of the former and stimulate local development.* In supporting economic development and fight against poverty, road rehabilitation is generally not sufficient to promote local development. TTDP impact evaluation has shown that significant improvements of transport conditions (reduction of travel times and travel costs, greater availability and reliability of transport services) follow the rehabilitation of the transport infrastructure. However, the impact on local economic development and poverty reduction is generally not systematically forthcoming. Consequently, the implementation of complementary investments at the micro-regional level is a must to capitalize and derive the full benefits from the roads. In that regard, TTDP showed that, in parallel with the improvement of transport conditions that make access to local markets easier and more reliable, complementary investments are necessary to promote opportunities for self-employment and income generation. TTDP however only had seed funding to that end (US\$2 million) which was way insufficient to cover the needs expressed in the Micro-Region Development Plans. Although it met its target regarding this result, TTDP was able to only raise a fraction of the additional funding required to finance the plans, in spite of its valuable efforts. Projects similar to TTDP should make provision for a larger amount of funding earmarked for local investments complementary to roads rehabilitation and spot improvements.

96. *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.* TTDP illustrated how three cooperation entities were brought to work together regarding the rehabilitation of RN3 under a win-win framework that emphasized the adding up of the comparative advantages of these entities, an open approach to the discussion of the topics at hand and the resolution of conflicts. Such coordination was lengthy and time consuming. But it was worthwhile and successful in a context where resources were limited. It 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 only a limited stretch of road.

97. *As part of project design, the provision of resources to address emergency issues is required in post-conflict and disaster-prone countries.* TTDP was restructured at mid-course to accommodate the need to respond to the disasters caused by several tropical storms and hurricanes in 2008. Under the new Component 4, the focus was shifted from regular road rehabilitation and spot improvement to emergency works. This created some disruption in project implementation, although the project proved able to fully accommodate the needs arising from the restructuration. The attendant lesson is that it would have been easier to be fully prepared right from project design to the event of an emergency. In that sense, creating a specific component to be triggered depending on needs would have been advisable. 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.

(b) Lessons concerning transport projects

98. *Improved transport conditions in rural areas translate into better access to markets by producers, hence increasing income-generating opportunities; they also translate into improved access to social services (health, education).* The impact evaluation of TTDP has illustrated the benefits of rural road interventions in Haiti, confirming conventional wisdom based on international evidence. Rural roads not only facilitated access to markets, hence promoting agricultural production, but also school attendance, visits to health centers and opportunities for leisure. These results are a strong advocate for investing in rural roads as part of a growth and poverty reduction strategy in rural areas.

99. *A work strategy focused on SMEs for transport infrastructure can act as a catalyst for developing private sector activities and generating employment.* Under TTDP Component 4, the inclusion of SMEs served the need to perform spot improvement for a widely-scattered rural infrastructure. In addition to being cost-effective, the SME program had spillover effects on local development initiatives, creating employment opportunities for the rural populations involved.

100. *Gravel roads can be a sustainable and cost-effective technical solution to improve rural transport infrastructure.* TTDP's experience confirmed international evidence that paving roads is not always the most cost-effective solution to address transport needs on low- traffic roads. Instead, for rural roads where traffic levels do typically exceed a minimum threshold (say 50 vehicles per day), gravel roads constitute the most adequate technical solution provided due attention is given to maintenance. Under proper maintenance conditions, gravel roads are both a cost-effective and sustainable option. Unfortunately, these conditions are not always met in post-conflict or fragile countries where funding is limited and road maintenance is not considered a priority. This is the case in Haiti. The project failed to seize the opportunity to make a dent in improving the situation.

101. *Improving road maintenance services in a volatile environment like Haiti which suffered a total collapsing of its national systems in place in the nineties is very challenging and a medium long term issue,* the use of legal covenants in the project to support a broader dialogue with other donors and the government on that thematic has shown some positive but limited results. A dedicated operation to address such a critical issue to protect the huge effort of rebuilding of the road network would merely have been more adequate. However, high level of volatility calls for an approach that is both opportunistic and focused on long-term sustainability. This presents issues of measurement and limits the predictability of outcomes.

(c) Lessons concerning participatory planning and subproject execution

102. *Participatory planning and inclusion can ensure better targeting of resources while better responding to community needs.* TTDP through Component 2 aimed to empower the rural population in the process of identifying local priorities and selecting local investments. In this regard, participatory plans identifying key local investment ensured that local stakeholders' needs were fully reflected in the prioritization of investment alternatives. Preparation of these plans helped understand the related economic development opportunities and poverty links as perceived by communities. Various consultations and participatory workshops in the targeted communes ensured the engagement and inclusion of all beneficiaries and community members from the design through the implementation phase. As part of the workings of the mechanism of the Consultation Table (TC), a methodology was developed so that local stakeholders could solve key tradeoffs between investment alternatives while limiting the risks of capture of the decision-making process by individual interests. The obligation of transparency and due rendition of accounts proved to be the key to the project success. The CT was the appropriate mechanism to ensure proper accountability to rural stakeholders.

103. *Infrastructure subprojects of the type included in TTDP Component 2 should present an O&M strategy and attendant training program.* Ensuring that resources are lined up for the operation, maintenance and renewal of investments is a must for subprojects to be sustainable.. Subprojects that require operational and management skills need to be accompanied by corresponding training and follow-up support. Such support should be duly included in the terms of reference of MDOD contracts.

7. Comments by Borrower on Issues Raised

Summary of comments by Ing. Garry JEAN, UCE Coordinator, MTPTEC. (Project Implementation Unit in charge of overall coordination of the project) (January 29, 2014)

The UCE is in agreement with the different ratings proposed in the ICR document but highlight elements through the following comments.

- *“The vast majority of project objectives was reached or exceeded in some cases particularly in terms of reduced travel time and transportation costs for easier access to markets.*
- *The emergency works have restored access for areas that were left isolated after the destructive series of natural disasters that have rocked the country during the project implementation period. They also have allowed supporting the small regional construction companies which had a positive impact on both reducing the cost of works and increasing local employment.*
- *The ICR document does not fully reflect the efforts deployed to address the issue of road maintenance. In fact, since the beginning of the project, successive governments have reiterated their commitment and given priority to this issue in conjunction with the reconstruction of the road network. This has included operational support to FER, the implementation of a national strategy for maintenance road, and the recently-created department within MTPTEC dealing exclusively with road maintenance.*
- *Given the very good results of the project, the positive impact in terms of improving access to health services and education, as noted in the satisfaction survey and the ongoing efforts to ensure better sustainability of our road investments, this overall project rating, is relatively conservative. “*

About his performance, the PIU emphasizes the extremely difficult circumstances related to the devastating earthquake of January 12, 2010 which has severely impacted the staff. Moreover, the continuity of existing operations was a particularly delicate task given new government priorities related to the challenges of reconstruction. UCE also recognizes that the rapid increase in the volume of activity has hampered its performance including the implementation of PTDT.

Finally, The Ministry of TPTPC brings to the Bank’s attention its excellent relations with the various teams of the World Bank throughout the project implementation and how it has contributed to TTDP’s good performance.

Annex 1 - Project Costs and Financing

(a) Project Costs by Component (US\$ equivalent)

Component/ Sub-Component	Estimated		Disbursed		
	Appraisal (2006)	Revised (2009)	Amount (Dec. 2013)	% appraisal	% revised
	US\$ millions			%	
Component 1: Improvement of key transport corridors	11.20	18.66	18.70	166%	100%
▪ Sub-Component 1.1: Road improvement and spot interventions	10.70	18.16	18.70	174%	103%
▪ Sub-Component 1.2: Road maintenance	0.50	0.50	0.00	0%	0%
Component 2: Territorial development window	3.00	3.00	3.00	100%	100%
▪ Sub-Component 2.1: Territorial planning process	0.50	0.50	0.85	210%	210%
▪ Sub-Component 2.2: Complementary sub-projects	2.50	2.50	1.15	78%	78%
Component 3: Project administration and M&E	1.70	1.93	1.5	88%	78%
Component 4: Post natural disaster's reconstruction	-	4.25	4.25	-	100%
Unallocated	0.10	0.16	-	-	-
Total	16.00	28.00	27.44	171%	98%

(b) Financing

All financing was provided by the Bank/ IDA initial and additional financing grants.
Neither the Borrower nor the beneficiaries were requested to contribute financing

Annex 2 - Outputs by Component

Component 1

This component (US\$11.25 million) dealt with the road infrastructure component. It comprised two sub-components: (i) Sub-component 1.1 (US\$11.25 million) concerned the rehabilitation of the two stretches of roads of Carrefour Lamort to St. Raphaël (38.8 km) to be asphalted in the North, and Forêt des Pins to Anse à Pitres (63 km) to be improved as a gravel road in the South-East, and (ii) Sub-component 1.2 (US\$500,00) for road maintenance.

Subcomponent 1.1: Road rehabilitation. To implement Sub-component 1.1, UCE launched three competitive bidding processes respectively for: (i) technical studies, (ii) work execution; and (iii) work supervision. As a results of the bidding for the technical studies, the firms AIC Progetti was selected to prepare the studies for the road stretch Forêt des Pins - Thiotte - Anse à Pitre as part of a contract with the MPTC of March 24, 2008 for an amount of US\$ 625,000, and Gelsen Consult for the engineering study of Carrefour La Mort - St Raphaël for a total of € 386,000 or about US\$500,000.

In the South-East, the studies showed that the amount of money available for the work was clearly insufficient for the rehabilitation of the entire two stretches of roads. Indeed, following discussion of the options for road rehabilitation based on the Progetti study, the UCE had indicated that, given the its importance of as departmental road linking to the Dominican Republic, the stretch Forêt des Pins-Thiotte-Anse Pitre should be treated according to the characteristics of a two-lane road and not as a local road with one bandwidth and crossings, as this had been one option in the preliminary design. That option also considered only spot interventions, whereas UCE preferred a full road rehabilitation. In addition, at the opening of bids, the lowest bid for the rehabilitation of the road was 25 % higher what the study had estimated estimated. In total, the cost overrun was about US\$5.10 million, compared to the initial estimate. Accordingly, it was decided to rehabilitate only the section Thiotte - Anse à Pitre (40 km) as the most critical part. The Government and the Bank agreed to seek other options for the remaining 20 km between Thiotte and Forêt des Pins. The firm Vorbe & Sons won the contract for work execution for a total of US\$6.9 million. It completed the works in two years. The group EXPERCO / ESC was given responsibility for supervision under a contract for an amount of US\$750,000.

Similarly, in the North, the amount of funding provided at project appraisal proved to be way under real costs, for the following reasons. The type of interventions was intended to be a light rehabilitation. It was decided that the rehabilitation standard was insufficient and had to be raised to a higher standards. The reason for the higher standard was that the traffic on that road section, following rehabilitation of the entire RN3 all the way to Port au Prince decided by the Haitian government with the support of other donors, was estimated at a much higher level that previously estimated. Various options were considered by the Bank during supervision missions in close coordination with the two other donors concerned (EU, AFD and AFDB) to draw upon the various financing potentially available from the view of the rehabilitation of the larger stretch of road all the way to Hinche and create synergy and complementarity between the donors. These efforts resulted in a funding strategy involving a very close coordination between the three donors (WB, AFD and EU): (i) AFD financed the technical studies of Saint Raphaël section - Hinche (45 km), while the Bank would finance those of the Carrefour Lamort - Saint Raphaël (38.7 km); and (ii) work execution contracts for works and supervision were to be financed by AFD and the EU for the section Hinche - Barrière Battant (75.2 km), and by the Bank for the section Carrefour Lamort – Barrière Battant (8.5 km). For work execution on this latter stretch only one

bid was received from the firm Ghella SPA. The lack of interest on the part of other international and national firms was explained by the relatively small size of the contract. The amount of this proposal was over US\$10 million which exceeded the amount available for this stretch by about US\$2 million. After negotiations over unit costs and quantities, the contract was signed with the company in January 2010 for approximately US\$8.7 million. Work supervision was entrusted to SNC Lavalin /LGL consortium for an initial contract of US\$547,000, followed by an extension of US\$120,000.

All above processes resulted in large delays with road rehabilitation work being completed way off schedule in 2011 for the North and 2012 for the South East,

The following photos depict the situation of the road stretches in the Northern and South-Eastern micro-regions in the situations before and after the project.

	Before project situation	After project situation
Road stretch Carrefour Lamort - Carrefour Barrière Battant, RN3, Northern micro-region		
Road stretch Thiotte - Anse à Pitres, South-Eastern micro-region		

Subcomponent 1.2. The Road Maintenance Fund (FER) received some support for capacity building, in the form of office equipment and furniture as well as construction of the new offices following the 2010 earthquake. However, MTPTC was late in preparing a road maintenance convention with FER for the maintenance of the road stretch from Thiotte to Anse à Pitre. As a result it could not receive in time the funding earmarked for that purpose under TTDP (approximately 400,000 USD). A part of these maintenance activities thus remain to be made mostly for RD41 as since its rehabilitation, RN3 has been maintained by MTPTCE from Carrefour La Mort to Saint Raphael on a force account bases without using FER funds. It has to be noted that this activity of the project even if quite unsuccessful has allowed to support during the lifetime of the project a broader dialogue with the MTPTCE on road maintenance and to support the extensive work of other donors like EU and IDB which have financed capacity strengthening of MTPTC services, with late but valuable results such as an operational road maintenance fund receiving expected taxes from MEF, support the creation of a dedicated unit at MTPTCE to prepare road maintenance programs and preparation of a road maintenance strategy.

Component 2

Component 2 ‘Territorial Development Window’ (US\$3 million) consisted of two sub-components respectively to (i) support the participatory planning process (US\$500,000) including the corresponding outreach activities and the operation of the Consultation Tables; and (ii) the funding of socio-economic subprojects at communal level (US\$2.5 million). The bidding process launched for the recruitment of the facilitators resulted in an escalation of the cost of subcomponent to close to about US\$850,000 million. The reason in part is that they were requested to act under delegated management contracts (MDODs) with responsibility not only for outreach activities but also for contracting and payments for the subprojects. The other reason was that the international NGOs that were selected had to high costs of operation given the difficult working environment of Haiti.

Component 2 had a strong positive impact in the two micro-regions both in terms of the participatory territorial planning approach supported by the project and the portfolio of subprojects which was financed. Also to be noted is that it started implementation as early as 2007, way before Component 7 and for close to 3 years was the sole TTDP presence in the field. Component 2 impact can be summarized as follows :

Participatory Territorial Planning (PTP). The various methodological tools and steps for PTP, were first developed and tested under Component 2 by the two NGO facilitators (CECI and AVSF) in close liaison with the Departmental Directorates of Planning (MPCE). As part of this process the rules governing the operation of the Consultation Table (TCs) were established. The TCs subsequently operated with the support and coaching of the two facilitators. The MPCE directorates received financial support (\$50,000 each) from TTDP to strengthen their capacity. The two Micro-Regional Development Plans (MRDP, one per micro-region) were prepared and validated through the TC with the participation of all key stakeholders (decentralized services of the government, local authorities and civil society organizations). These plans built on priorities established at communal level that were vetted and cross-examined at micro-regional level through for incorporation or not into the MRDP. They contained all the micro-regional investments that had been selected and prioritized.

Portfolio of sub-projects (see [Appendix 1](#)): The subprojects financed under TTDP were selected from MRDPs’ investment priorities. Worth noting is that the funds earmarked by TTDP for subprojects (about one million for each micro-region), represented only a fraction of the financial envelope that would have been required to fund the MRDPs. TTDP financed 8 sub-projects in the Northern micro-region and 13 in the South-Eastern micro-region for a total of approximately US\$1.95 million. The NGO facilitators selected to support the implementation process worked under contractual arrangements with full delegation of authority. They managed the bidding process, handled the funds for payment of subproject expenditures, contracted with firms, and oversaw the implementation and monitoring of all sub-projects by providing close support to the sub-project management committees. They held regular workshops, generally in conjunction with the meetings of the Consultation Tables (TCs). These workshops were a major factor in informing and eliciting the participation of the stakeholders, and getting them to fully adhere to the strict rules governing the participatory process. Hence this process was fully transparent. It has permitted a full rendition of accounts and has avoided elite capture.

Institutional strengthening. The communes of the two micro-regions received capacity building through the MDODs’s outreach activities and support to the Consultation Tables (TCs). The Departmental Directorates of Planning (DDP) received funding of approximately US\$50,000 for

renovation of building, acquisition of equipment and services (office furniture, computer equipment, internet, etc.) and support to TC meetings. In addition (i) in the North, a consultant was hired for 9 months to train the staff of three communes for municipal planning and preparation of the development plans, and (ii) in the South-East, Component 2 supported the installation of the Deputy Director of Planning in the commune of Belle Anse, by taking over the funding of his salary for one year.

Mobilization of additional resources for the MRDP: Additional funds were raised to finance priority investments in the MRDPs that could not be funded under TTDP. These additional funds amounted to (i) US\$3.9 million in the North through four externally funded projects and two Petro Caribe funded projects, and (ii) some US\$300,000 in the South-East essentially through the Spanish Cooperation.

The impact study showed that Component 2's sub-projects impact was very positive, with emphasis on the following areas:

- a) *Socio-economic Development:* The socio-economic infrastructure funded by the subprojects have created an enabling environment for productive activities and/or services (e.g., markets, supply and distribution of electricity , tourism development, promotion of crafts and sustainable agriculture) activities;
- b) *Environmental conservation and management of risks and disasters:* The subprojects concerning hedges or stone contour farming and protection of gullies, in combination with other projects, have led to the effective protection of watersheds; and
- c) *Strengthening of social capital:* the process of prioritization and implementation of sub-projects according to TTDP's participatory territorial planning approach has resulted in solid ownership of the investment process by local populations represented in the Consultation Tables. These populations have been empowered. They have gained more confidence in themselves, the habit of thinking and working together, and awareness of key development issues (status of women, youth and other disadvantaged groups, weakening of protection of the environmental heritage, etc.).

Component 4

Appendix 3 lists the spot improvements carried out under Component 4. The first intervention was the Point Limite on Brouyaha River between the communes of St. Raphaël and Dondon. Bayley bridge offered by the French Cooperation was installed. The spot improvements under Component 4 involved inter alia: (i) strengthening river embankments; (ii) rebuilding bridges and improving drain; and (iii) stabilizing sea shores. The benefits from these investments were felt immediately by the nearby populations. They included protection from the risks generally associated with disasters, notably protection from flooding of dwellings and land plots.

Annex 2 - Appendix 2

COMPOSANTE 2: SITUATION DES CONTRATS DE FACILITATEURS ET DES SOUS-PROJETS (30 juillet 2013)

A. Contrats facilitateurs avec le BMPAD

N°	Activité	État d'avancement	Observations – Prochaines étapes
	Contrat Facilitateur micro-région Nord (CECI)	<ul style="list-style-type: none"> ▪ NO rapport d'analyse des offres financières : 12/06/2007/ Contrat accordé à CECI ▪ Montant du marché : 1,5 millions USD (426,025 USD pour facilitateur et 1,073,975 USD pour sous-projets) ▪ NO donnée : 07/09/2007 ▪ Contrat signé : 18/09/2007 ▪ Démarrage : septembre 2007 ▪ Durée initiale de la convention : 36 mois jusqu'au 30/09/2010 ▪ 2 avenants repoussant la date de clôture effective de la Convention au 31/03/2012 ▪ Rapport de clôture soumis par CECI mars 2012 ▪ Clôture effective : 31/03/2012 	<ul style="list-style-type: none"> ▪ Le dernier avenant a prolongé la durée de la convention jusqu'en mars 2012 sans changement dans le montant de cette convention
	Contrat Facilitateur micro-région Sud-Est (Consortium AVSF-CICDA/ACTION AID)	<ul style="list-style-type: none"> ▪ NO rapport d'analyse des offres financières : 12/06/2007/ Contrat accordé à AVSF-CICDA/ACTION AID ▪ Montant du marché : 1,5 millions USD (426,025 USD pour le facilitateur et 1,073,975 USD pour sous-projets) ▪ NO donnée : 18/09/2007 ▪ Contrat signé : 20/09/2007 ▪ Démarrage : septembre 2007 ▪ Durée initiale de la convention : 36 mois ▪ Rapport de clôture soumis en mars 2012 ▪ Clôture effective : 31/03/2012 	<ul style="list-style-type: none"> ▪ Le dernier avenant a prolongé la durée de la convention jusqu'en mars 2012 sans changement dans le montant de cette convention

B. Sous-projets micro-région du Nord (CECI) (Coûts en USD à titre indicatif/ Coûts réels en gourdes haïtiennes – HTG, sauf indication contraire le sous-projet est réalisé)

N°	Description sous-projet	Coût et réalisations principales	Observations-prochaines étapes
1	Renforcement de la Direction Départementale de la Planification du Nord (DDPN)	<ul style="list-style-type: none"> ▪ Coût : 50,000 USD ▪ Réalisations principales : (i) installation internet et paiement abonnement pendant les 12 premiers mois, (ii) acquisition de matériels et fournitures de bureau et alimentation de la petite caisse pendant 15 mois, (iii) contribution à la tenue de 15 tables départementales de concertation, et (iv) recrutement consultant pour appuyer la Direction dans la mise en place de table de concertation au niveau de 4 autres communes du département du Nord (9 mois) 	
2	Formation de 50 jeunes (25 garçons et 25 filles) originaires des 5 communes de la micro-région dans le domaine du tourisme	<ul style="list-style-type: none"> ▪ Coût : 100,000 USD ▪ Réalisations principales : (i) formations réalisées en tourisme, en gestion de chambres d'hôtes et en entrepreneuriat, et (ii) création d'un fonds de USD 30,000 pour le financement de micro entreprises gérées par les jeunes formés en lien avec le secteur touristique 	<ul style="list-style-type: none"> ▪ 14 jeunes dont 6 filles ont été embauchés par 2 des plus grands hôtels de la ville du Cap et par le Ministère à la Jeunesse, aux Sports et au Service Civique (MJSSC) ▪ Le Ministère du Tourisme a fourni un précieux accompagnement aux jeunes lors de la validation de leurs compétences notamment par l'organisation de séminaires thématiques ▪ Formation par FUNDAH semble ne pas avoir été bien reçue. Les causes de la frustration des responsables de la mairie et des jeunes sont à investiguer ▪ Suivi d'impact à réaliser : nombre exact et type (i) d'emplois créés, et (ii) de micro-entreprises créées
3	Aménagement d'une aire de vente de fruits et légumes à Saint-Raphaël	<ul style="list-style-type: none"> ▪ Coût initial : 100,000.00 USD ▪ Coût supplémentaire : clôture (40,000 USD) et drainage (15,000 USD) ▪ Aire terminée ouverte aux vendeuses et inauguration en octobre 2009 ▪ Principales réalisations : (i) sensibilisation et mobilisation de la population bénéficiaire, (ii) construction de deux modules d'hangar, un bloc administratif, un bloc sanitaire, (iii) aménagement de la plateforme sur plus 3,000 m² et construction d'un bac de lavage de fruits et légumes, et (iv) drainage et érection d'une clôture et 2 barrières 	<ul style="list-style-type: none"> ▪ Mauvaise définition du projet (le clôture et le drainage (réalisés par apport financiers complémentaires) étaient nécessaires ▪ L'aire n'est pas utilisée à ce jour. Deux causes possibles : (i) non-réalisation des aménagements intérieurs et/ou (ii) non inclusion dans le nouveau grand marché de St. Raphaël ▪ Nécessité déterminer les raisons de la non utilisation avant d'engager de nouvelles dépenses et/ou d'envisager la reconversion
4	Protection de bassins versants à Brostage (Commune de Dondon)	<ul style="list-style-type: none"> ▪ Coût : 100,000.00 USD ▪ Principales réalisations: (i) construction de seuils et de rampes végétales, (ii) aménagement de ravines avec des 	<ul style="list-style-type: none"> ▪ Sous-projet exécuté directement par le Comité de Gestion de la Table de Concertation Communale ▪ Liste à fournir des planteurs bénéficiaires de la prime

		structures pierreuses et végétales, (iii) établissement de différentes spéculations agricoles dans parcelles déjà aménagées destinées à fixer les sols, et (iv) prime de performance pour bénéficiaires ayant les meilleurs résultats	de performance <ul style="list-style-type: none"> ▪ Suivi d'impact à réaliser, notamment au plan des emplois générés
5	Appui à 26 jeunes agriculteurs pour activités agricoles porteuses (dans chacune des communes de la micro-région)	<ul style="list-style-type: none"> ▪ Coût : 100,000.00 USD ▪ Principales réalisations : (i) visites d'échange et formation diverses telles que : techniques d'aménagement de bassin versant, apiculture, élevage bovin, santé animale, techniques de production d'igname, etc., (ii) aménagement de parcelles par des rampes d'ananas et la plantation d'arbres divers, (iii) acquisition et distribution de ruches peuplées, vaches laitières, taureaux géniteurs et d'un ensemble d'accessoires, et (iv) acquisition d'intrants agricoles divers pour l'emblavement des parcelles aménagées 	<ul style="list-style-type: none"> ▪ Certains des jeunes appuyés par ce sous-projet ont eu un réel succès, notamment ceux établis en santé animale (technicien vétérinaire) et en apiculture
6	Appui à la production et à la commercialisation des produits artisanaux (50 jeunes artisans)	<ul style="list-style-type: none"> ▪ Coût : 100,000 USD ▪ Principales réalisations: (i) formation sur des thèmes divers (conception/ design, contrôle de qualité, présentation, marketing des produits artisanaux), (ii) réhabilitation de l'atelier de poterie de Lory, (iii) réhabilitation de l'atelier de peinture des jeunes de Bassin Diamant, (iii) acquisition de matériels et équipements divers pour les ateliers de Lory et de Bassin Diamant, et (iv) construction du marché d'exposition-vente de produits artisanaux de Milot 	<ul style="list-style-type: none"> ▪ Nécessité de suivi car les jeunes se sont organisés et se sont investis dans les produits artisanaux ▪ Les aménagements complémentaires du marché d'artisanat de Milot doivent être réalisés ▪ Atelier-expo vente communautaire de Bassin Diamant: aménagements intérieurs, clôture, abords extérieurs, etc., non effectués ▪ Suivi d'impact à réaliser (emplois induits?)
7	Sous-projet de transformation de produits agricoles de Grande Rivière du Nord	<ul style="list-style-type: none"> ▪ Coûts : 55,000 USD ▪ Principales réalisations : (i) réhabilitation d'une cassaverie à Joli Trou, avec dotation en matériels et équipement, et (ii) formations par ANATRAF : environnement de l'entreprise ; risques liés à l'environnement de l'entreprise ; présentation des projets de micro entreprises, calcul des coûts de production, y compris besoin en fonds de roulement 	<ul style="list-style-type: none"> ▪ L'unité de séchage de fruits a été abandonnée car le financement complémentaire du Projet MARCHÉ (USAID) ne s'est pas matérialisé.
8	Sous-projet d'électrification de la commune de Bahon (extension de ligne MT/ BT et installation de transformateurs) à partir de la	<ul style="list-style-type: none"> ▪ Montant du marché (Entreprise ELMECEN SA): 180,000 USD (Contrat signé le 22/04/2010) ▪ Montant de l'avenant : 114,024.97 USD (NO donnée à l'avenant le 28/11/2010) 	<ul style="list-style-type: none"> ▪ L'avenant a été requis car les coûts du projet initial ont été sous-estimés ▪ L'impact socio-économique a été immédiat (loisirs, santé / dispensaires et éducation écoles) La population

Centrale de Caracol)	<ul style="list-style-type: none"> ▪ Achèvement : 15/12/2010 ▪ Principales réalisations : (i) sensibilisation et mobilisation de la population bénéficiaire, (ii) installation de 170 poteaux avec accessoires sur une distance approximative 12 km, (iii) installation de 15 lampes pour l'éclairage des rues, et (iv) installation de 8 transformateurs dans les localités de Saint Malo, Buenabi et Gambade. 	<p>de Bahon est très satisfaite. L'impact économique se traduit pas l'apparition de nouveaux métiers (soudure) et des glaciers pour la vente de boissons sucrées. Egalement par l'apparition des ordinateurs à l'école.</p> <ul style="list-style-type: none"> ▪ Suivi d'impact à réaliser
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C. Sous-projets micro-région du Sud-Est (Consortium AVSF-CICDA/ACTION AID) : Coûts en USD à titre indicatif/ Coûts réels en gourdes haïtiennes – HTG, sauf indication contraire le sous-projet est achevé)

N°	Activité	État d'avancement	Observations – Prochaines étapes
1	Appui au renforcement de la Direction Départementale de la Planification (DDP) (Jacmel et Belle Anse)	<ul style="list-style-type: none"> ▪ Démarrage : 09/2008 ▪ Coûts : 2,000,000 HTG (50,000 USD) 	<ul style="list-style-type: none"> ▪ Le Sous-Directeur Départemental du Plan est en poste à Belle Anse depuis fin 2008. Son salaire a été pris en compte pendant un an par le PTD.
2	Revêtement en pavés de béton ('adoquins') de l'aire de la gare routière de Thiotte	<ul style="list-style-type: none"> ▪ NO donnée au DAO : 24/06/2009 ▪ Entreprise : BUCOTEC ▪ NO donnée : 15/10/2009 ▪ Contrat signé : 31/08/2009 ▪ Montant : 3,312,379.00 HTG (77,000 USD) ▪ Délai d'exécution : 70 jours ▪ Réception définitive : 11/09/2010 	<ul style="list-style-type: none"> ▪ Sous projet terminé à la grande satisfaction de la population de Thiotte. ▪ Ce sous-projet a induit plusieurs autres sous-projets : (i) bétonnage (financement national); (ii) bétonnage, y compris le marquage des rues (PTDT, voir ci-après sous-projet #9); (iii) éclairage public photo-cellulaire (financement national); et (iv) salle multi-fonctionnelle dans le marché (Coopération Espagnole – AECI)
3	Réhabilitation de certains points critiques de l'axe Belle-Anse-Mare Joffrey (commune de Belle-Anse)	<ul style="list-style-type: none"> ▪ Entreprise : BUCOTEC ▪ NO donnée : 03/12/2009 ▪ Supervision : BECO ▪ Contrat signé : 22/02/2010 ▪ Montant du marché : 3,678,900 HTG (91,972 USD) ▪ Démarrage : 03/2010 ▪ Réception définitive effectuée 	<ul style="list-style-type: none"> ▪ La réhabilitation des points critiques n'est qu'une mesure temporaire dans l'attente de la réfection complète de l'axe
4	Conservation de sol à Anse-à-Pitre (barrières anti-érosives)	<ul style="list-style-type: none"> ▪ Entreprise : Table de Concertation Communale d'Anse-à-Pitre ▪ Contrat signé : 17/09/2009 ▪ Montant du marché : 3,360,000 HTG (84,000 USD) 	<ul style="list-style-type: none"> ▪ Ce sous-projet complété fin 2009 a démontré sa durabilité sur plusieurs saisons pluvieuses à ce jour

		<ul style="list-style-type: none"> ▪ Démarrage : 10/2009 	
5	Réhabilitation en terre battue de l'axe Nan Plak Tèt Sous (Commune d'Anse-à-Pitre)	<ul style="list-style-type: none"> ▪ Entreprise : HAICOSA ▪ Contrat signé : 06/08/2010 ▪ Montant du marché : 3,702,700.00 HTG (92,567.00 USD) ▪ Démarrage : 09/2010 	<ul style="list-style-type: none"> ▪ La zone de Nan Plak Tèt Sous est une zone de production maraîchère (choux, carotte, etc.) ▪ Cet axe désenclave la localité vers la route Thiotte – Fonds Parisien (au niveau de la Forêt des Pins) ▪ Il désenclave indirectement vers le Nord la ville de Banane et les zones avoisinantes
6	Réhabilitation de l'axe Grand Gosier-Mare Joffrey-Bodarie (Commune de Grand Gosier)	<ul style="list-style-type: none"> ▪ Entreprise : CADE & CO ▪ NO envoyée : 09/04/2010 ▪ Contrat signé : 27/04/2010 ▪ Montant du marché : 3,945,265 HTG (98,631 USD) ▪ Démarrage : 05/2010 	<ul style="list-style-type: none"> ▪ Ce sous-projet a permis le passage en tout temps de la route et le désenclavement de la ville de Grand Gosier. Il convient que la Table de Concertation se mobilise pour traiter périodiquement les points critiques qui apparaissent déjà
7	Réhabilitation du réseau électrique de la ville de Belle-Anse	<ul style="list-style-type: none"> ▪ Coûts : 4,000,000 HTG (100,000 USD) ▪ Démarrage : 06/2010 	<ul style="list-style-type: none"> ▪ Convention signée entre la mairie et EDH (à vérifier)
8	Construction de marché agricole à Bodarie (commune de Grand Gosier)	<ul style="list-style-type: none"> ▪ Entreprise : Global Construction ▪ NO envoyée: 21/05/2010 ▪ Contrat signé : 11/08/2010 ▪ Coût : 4,046,946 HTG (101,173 USD) ▪ Démarrage : 10/2010 	<ul style="list-style-type: none"> ▪ Aire de vente partiellement utilisée par les vendeuses ▪ Aire administrative non utilisée ▪ Sanitaires fonctionnels ▪ Pas de paiement pour utilisation des infrastructures
9	Extension du bétonnage de la ville de Thiotte et marquage des rues	<ul style="list-style-type: none"> ▪ Entreprise : BUCOTEC ▪ Coût : 3,954,000 HTG (98,850 USD) ▪ Démarrage : 09/2010 	<ul style="list-style-type: none"> ▪ Sous-projet 'induit' par le 1^{er} sous-projet d'adoquinage du centre de Thiotte et 'complémentaire' d'un autre sous-projet de bétonnage (financement national)
10	Électrification de la section communale de Bois d'Orme à partir du réseau électrique de Thiotte (commune Anse-à Pitre)	<ul style="list-style-type: none"> ▪ Coût : 4,000,000 HTG (100,000 USD) ▪ Démarrage : 09/2010 	<ul style="list-style-type: none"> ▪ Étude de faisabilité réalisé par EDH ▪ L'exécution a été assurée par EDH avec la participation des membres du comité de gestion de la Table de Concertation d'Anse-à-Pitre ▪ Meilleure pratique de collaboration entre mairie (Table de Concertation) et EDH
11	Conservation de sol dans les localités de Domas et de Boulay (commune de Grand Gosier)	<ul style="list-style-type: none"> ▪ Coût : 3,925,900 HTG (98,147 USD) ▪ Démarrage : 08/2010 ▪ Convention signée 13/08/2010 	<ul style="list-style-type: none"> ▪ Ce sous-projet est l'un parmi d'autres sous-projets du même type dans les localités de Domas et Boulay. En agrégation, ces sous-projets devraient avoir un impact sur le bassin versant de Mapou qui est très vulnérable. ▪ L'exécution a été assurée directement par le comité de gestion de la Table de Concertation communale
12	Construction d'un marché public à Belle-Anse	<ul style="list-style-type: none"> ▪ Coût : 4,074,962 HTG (100,000 USD) ▪ Démarrage : 09/2010 	<ul style="list-style-type: none"> ▪ Plan architectural discuté et établi en étroite liaison avec les membres de la Table de Concertation Communale

Annex 2 – Appendix 2

Composante 4 : Reconstruction d'infrastructures prioritaires endommagées par les catastrophes naturelles

No.	Activités	Responsable	État d'avancement
1	RN7, les Cayes, Pont Madame Samedi, les Cayes-Aéroport	<ul style="list-style-type: none"> • MTPTC-UCE (Entreprise GENITEC) 	<ul style="list-style-type: none"> • Rapport d'évaluation envoyé: 10/03/2009 • NO donnée : 23/03/2009 • Contrat signé : 08/05/2009 • Montant du Marché : 28.838,00 USD • Délai d'exécution : 3 mois • Réception définitive : 22/03/2010
2	Sainte Hélène, Les Cayes-Maniche, Lot 1	<ul style="list-style-type: none"> • MTPTC-UCE Entreprise : GENITEC 	<ul style="list-style-type: none"> • Rapport d'évaluation envoyé : 17/03/2009 • NO donnée : 23/03/2009 • Contrat signé : 08/05/2009 • Montant du Marché : 33.106,00 USD • Délai d'exécution : 3 mois • Réception définitive : 22/03/2010
3	Sainte Hélène, Les Cayes-Maniche, Lot 2	<ul style="list-style-type: none"> • MTPTC-UCE Entreprise : GENITEC 	<ul style="list-style-type: none"> • Rapport d'évaluation envoyé : 17/03/2009 • NO donnée : 23/03/2009 • Contrat signé : 08/05/2009 • Montant du Marché : 34.450,00 USD • Réception définitive : 22/03/2010
4	Sainte Hélène, Les Cayes-Maniche, Lot 3	<ul style="list-style-type: none"> • MTPTC-UCE Entreprise : FAS Construction 	<ul style="list-style-type: none"> • Rapport d'évaluation envoyé : 17/03/2009 • NO donnée : 23/03/2009 • Contrat signé : 08/05/2009 • Montant du Marché : 24.457,00 USD • Délai d'exécution : 3 mois • Réception définitive : 22/03/2010
5	Sainte Hélène, Les Cayes-Maniche, Lot 4 (2 contrats)	<ul style="list-style-type: none"> • MTPTC-UCE Entreprise : GBC 	<ul style="list-style-type: none"> • NO donnée : 14/08/2009 • Contrat initial signé : 02/09/2009 • Montant du Marché : 72.4996,00 USD • Démarrage : 29/09/1009 • Délai d'exécution : 3 mois • Réception définitive le 18 janvier 2011 • Contrat Gré à gré et note justificative envoyés : 28/09/2010 • Contrat Gré à gré signé : 14/10/2010 • Montant : 20.050,00 USD • Délai d'exécution : 2 mois • Réception définitive le 18 janvier 2011
6	RN 2, Cocoyer Anglade, St Louis du Sud- Aquin	<ul style="list-style-type: none"> • MTPTC-UCE Entreprise : GAD 	<ul style="list-style-type: none"> • Rapport d'évaluation envoyé : 17/03/2009 • NO donnée : 23/03/2009 • Contrat signé : 08/05/2009 • Montant du Marché : 52.339,52 USD • NO donnée à l'Avenant : 02/09/2009 • Avenant signé : 14/09/2009 • Montant de l'Avenant : 12.041,74 USD • Délai d'exécution : 3 mois (+1 mois) • Réception définitive : 19/03/2010
7	RN7, Bananier, les	<ul style="list-style-type: none"> • MTPTC-UCE 	<ul style="list-style-type: none"> • Rapport d'évaluation envoyé : 06/07/2009

	Cayes-Camp Perrin	Entreprise : ENCOTRANS	<ul style="list-style-type: none"> • NO donnée sur rapport : 17/08/2009 • NO donnée : 14/08/2009 • Contrat signé : 02/09/2009 • Montant du Marché : 48.992,33 USD • Délai d'exécution : 3 mois • Réception définitive : 23/03/2010
8	Dolin Route Maniche	<ul style="list-style-type: none"> • MTPTC-UCE Entreprise : FAS Construction	<ul style="list-style-type: none"> • Rapport d'évaluation envoyé : 21/08/2009 • NO sur rapport donnée : 24/09/2009 • NO donnée : 09/11/2009 • Contrat signé : 03/11/2009 • Montant du Marché : 155.325,00 USD • Délai d'exécution : 3 mois • Réception définitive : 18/01/2011
9	Assistance à maîtrise d'Ouvrage (AMO) <ul style="list-style-type: none"> • Conception et travaux de l'ouvrage d'art de Mirebalais (PROReV) • Conception et travaux de l'ouvrage d'art de Chalon (PROReV) • Rivière Gauche (PTDT) • Dolin (PTDT) 	MTPTC- UCE	<ul style="list-style-type: none"> • NO pour demande de propositions pour AMO donnée : 07/07/2009 • NO donnée au report de la date de soumission des offres : 13/08/2009 • NO pour rapport d'analyse des offres donnée : 02/12/2009 • Entreprise : EGIS-BCEOM • NO donnée : 21/04/2010 • Contrat signé : 28/04/2010 • Montant du Marché : 656.420,80 USD
10	RD41 Jacmel – Marigot, les Cayes Jacmel, (Pétavie)	<ul style="list-style-type: none"> • MTPTC-UCE Entreprise : SOCONDIV	<ul style="list-style-type: none"> • Rapport d'évaluation envoyé : 07/04/2009 • NO donnée : 09/11/2009 • Contrat signé : 08/03/2010 • Montant du Marché : 162.687,90 USD • Délai d'exécution : 3 mois • Réception définitive le 24 janvier 2012
11	RD41 Jacmel – Marigot, Tercère (Ravine Grosse Roche)	<ul style="list-style-type: none"> • MTPTC-UCE Entreprise : ALTESHA	<ul style="list-style-type: none"> • Rapport d'évaluation envoyé : 17/03/2009 • NO donnée : 23/03/2009 • Contrat signé : 08/05/2009 • Montant du Marché : 14.947,48 USD • Délai d'exécution : 3 mois • NO donnée sur l'Avenant : 14/09/2009 • Avenant signé : 14/09/1009 • Montant de l'Avenant : 9.702,36 USD • Délai d'exécution : +1 mois • Réception définitive : 23/03/2010
12	RD41 Jacmel – Marigot, Tercère (Route Raymond Les Bains)	<ul style="list-style-type: none"> • MTPTC-UCE Entreprise : BURACO S. A.	<ul style="list-style-type: none"> • Rapport d'évaluation envoyé : 27/10/2009 • No sur rapport donnée : 01/11/2009 • NO donnée : 09/11/2009 • Contrat signé : 28/12/2009 • Montant du Marché : 80.195,00 USD • Délai d'exécution : 3 mois
13	RD41 Jacmel – Marigot, Marigot (Nan Mangou)	<ul style="list-style-type: none"> • MTPT-UCE Entreprise : SOCONDIV	<ul style="list-style-type: none"> • Rapport d'évaluation envoyé : 21/08/2009 • NO sur rapport donnée : 24/09/2009 • NO donnée : 09/11/2009 • Contrat signé : 03/11/2009 • Montant du Marché : 157.629,90 USD

			<ul style="list-style-type: none"> • Délai d'exécution : 6 mois • Réception définitive le 24 janvier 2012
14	RD41 Jacmel – Marigot, Marigot (Ravine Mécène)	<ul style="list-style-type: none"> • MTPTC-UCE Entreprise : SAVECO S. A. 	<ul style="list-style-type: none"> • Rapport d'évaluation envoyé : 06/07/2009 • NO donnée : 12/08/2009 • Contrat signé : 02/09/2009 • Montant du Marché : 26.115,00 USD • Délai d'exécution : 3 mois • Avancement : 100% • Réception provisoire : 05/05/2010 • Réception définitive : 05/10/2010
15	RD41 Jacmel – Marigot, Ravine Anse Colin Corail Sout	<ul style="list-style-type: none"> • MTPTC-UCE Entreprise : SAVECO S. A. 	<ul style="list-style-type: none"> • Rapport d'évaluation envoyé : 17/03/2009 • NO sur rapport donnée : 23/03/2009 • NO donnée : 19/05/2009 • Contrat signé : 08/05/2009 • Montant du Marché : 25.100,00 USD • Délai d'exécution : 3 mois • Réception définitive : 19/03/2010
16	RD41 Jacmel – Marigot, Ravine Anse Colin (1)	<ul style="list-style-type: none"> • MTPTC-UCE Entreprise : SAVECO S. A. 	<ul style="list-style-type: none"> • Rapport d'évaluation envoyé : 17/03/2009 • NO donnée : 23/03/2009 • Contrat signé : 08/05/2009 • Montant du Marché : 22.000,00 USD • Délai d'exécution : 3 mois • Réception définitive : 19/03/2010
17	RD41 Jacmel – Marigot, Ravine Anse Colin 2 (2)	<ul style="list-style-type: none"> • MTPTC-UCE Entreprise : BURACO S. A. 	<ul style="list-style-type: none"> • Rapport d'évaluation envoyé : 27/10/2009 • NO donnée : 09/11/2009 • Contrat signé : 28/12/2009 • Montant du Marché : 111.550,00 USD • Délai d'exécution : 3 mois • Avancement : 100%.
18	RD41 Jacmel – Marigot, Ravine Kajet	<ul style="list-style-type: none"> • MTPTC-UCE Entreprise : PIROTECH. 	<ul style="list-style-type: none"> • Rapport d'évaluation envoyé : 27/10/2009 • NO donnée : 09/11/2009 • Contrat signé : 21/12/2009 • Montant du Marché : 166.800,00 USD • Délai d'exécution : 3 mois • Réception définitive : 07/01/2011
19	RD41 Jacmel – Marigot, Ravine Coterelle	<ul style="list-style-type: none"> • MTPTC-UCE Entreprise : SOCONDIV 	<ul style="list-style-type: none"> • Rapport d'évaluation envoyé : 29/10/2009 • NO donnée : 09/11/2009 • Contrat signé : 08/03/2010 • Montant du Marché : 84.601,00 USD • Délai d'exécution : 3 mois • Réception définitive le 24 janvier 2012
20	RD41 Jacmel – Marigot, Ravine Ti Cousine	<ul style="list-style-type: none"> • MTPTC-UCE Entreprise : Tempo Construction 	<ul style="list-style-type: none"> • Rapport d'évaluation envoyé : 06/07/2009 • NO sur rapport donnée : 12/08/2009 • NO donnée : 14/08/2009 • Contrat signé : 02/09/2009 • Montant du Marché : 41.820,47 USD • Délai d'exécution : 3 mois • Réception définitive : 23/05/2010

No	Activités	Responsable	État d'avancement
21	Protection pont Voldrogue, RN7 Grande Anse DC-006/PTDT/2012	<ul style="list-style-type: none"> • MTPTC- UCE Entreprise : MVF PLUS CONSTRUCT ION 	<ul style="list-style-type: none"> • Ouverture des plis : 16 janvier 2013 • Non objection : 14 février 2013 • Contrat signé le : 11 mars 2013 • Montant du Contrat : US\$ 279,870.75 • Délai d'exécution : 5 mois • <u>Avenant :</u> • Non objection : 14 juin 2013 • Montant avenant : \$US 208,967.10 • État d'avancement : 100%
22	Protection du littoral à Anse Colin 3, RD41 (Jacmel – Marigot) DC-004/PTDT/2012	<ul style="list-style-type: none"> • MTPTC- UCE Entreprise : BESUCO 	<ul style="list-style-type: none"> • Ouverture des plis : 16 janvier 2013 • Non objection : 14 février 2013 • Contrat signé le : 11 mars 2013 • Montant du Contrat : US\$ 231,196.00 • Délai d'exécution : 5 mois • <u>Avenant :</u> • Non objection : 05 juillet 2013 • Montant avenant : \$US 104,834.00 • État d'avancement : 65%
23	Protection littoral à Pétavie (zone Hôtel Kabic Beach Club), RD41 DC-002/PTDT/2012	<ul style="list-style-type: none"> • MTPTC- UCE Entreprise : ENCAUSA 	<ul style="list-style-type: none"> • Ouverture des plis le : 16 janvier 2013 • Non objection : 26 février 2013 • Contrat signé le : 11 mars 2013 • Montant du Contrat : US\$ 205,035.00 • Délai d'exécution : 5 mois • <u>Avenant :</u> • Montant avenant : \$US 29,484.00 • État d'avancement : 100%
24	Construction du dalot 2(3 * 2.5) à Anse Colin 2, RD41 DC-001/PTDT/2012	<ul style="list-style-type: none"> • MTPTC- UCE Entreprise : M&L CONSTRUCT ION 	<ul style="list-style-type: none"> • Ouverture des plis le : 15 janvier 2013 • Non objection : 14 février 2013 • Contrat signé le : 11 mars 2013 • Montant du Contrat : US\$ 139,600.00 • Délai d'exécution : 5 mois • <u>Avenant :</u> • Non objection : 14 juin 2013 • Montant avenant : \$US 35,700.00 • État d'avancement : 90%
25	Consolidation et réparation des travaux de gabionnage réalisés à Saint Hélène, route de Maniche DC-005/PTDT/2012	<ul style="list-style-type: none"> • MTPTC- UCE Entreprise : CEPS 	<ul style="list-style-type: none"> • Ouverture des plis le : 16 janvier 2013 • Non objection donnée le : 06 février 2013 • Contrat signé le : 11 mars 2013 • Montant du Contrat : US\$ 136,710.00 • Délai d'exécution : 5 mois • <u>Avenant :</u> • Non objection : 24 juin 2013 • Montant avenant : \$US 78,820.00 • État d'avancement : 100%
26	Protection pont Roseaux, RN7 DC-007/PTDT/2012	<ul style="list-style-type: none"> • MTPTC- UCE Entreprise : M&L CONSTRUCT ION 	<ul style="list-style-type: none"> • Ouverture des plis le : 15 janvier 2013 • Non objection donnée le : 06 février 2013 • Contrat signé le : 25 février 2013 • Montant du Contrat : US\$ 748,175.08

			<ul style="list-style-type: none"> • Délai d'exécution : 5 mois • <u>Avenant :</u> • Montant avenant : \$US 337,670.75 • État d'avancement : 100%
28	Protection littorale à Marigot, zone Hôtel La Colline Enchantée, RD41 DC- 003/PTDT/2012	<ul style="list-style-type: none"> • MTPTC- UCE Entreprise : SECCA ingénierie 	<ul style="list-style-type: none"> • Ouverture des plis le : 15 janvier 2013 • Non objection donnée le : 06 février 2013 • Contrat signé le : 11 mars 2013 • Montant du Contrat : US\$ 317,900.00 • Délai d'exécution : 5 mois • <u>Avenant :</u> • Non objection donnée le : 05 juillet 2013 • Montant avenant : \$US 158,936.00 • État d'avancement : 75%

Annex 2 – Appendix 2 – Box 1

Quelques réalisations en images

Description de l'Intervention	Situation Avant	Situation Après
<p>Pont Limite. Le pont Limite est situé sur la RN3, près de Saint Raphael. L'ancien pont, un pont mixte à fermes métalliques, était en mauvais état et constituait un réel danger pour les usagers. Il a donc été fermé à la circulation. Le passage à gué de la rivière Bouyaha était fréquemment infranchissable en période de pluie. Le Gouvernement Français a offert en don au Gouvernement Haïtien un pont métallique de type Bailey pour remplacer le pont disloqué.</p>		
<p>Route Jacmel Marigot (RD41). Après le passage du cyclone Noël, la route départementale RD41 reliant la ville de Jacmel aux communes de Cayes-Jacmel et de Marigot a été sérieusement endommagée et le drainage transversal saccagé par les eaux en furie des ravines qui la traversent. Divers petits projets ont été exécutés pour la réparation de la chaussée, la protection du littoral en plusieurs endroits par des murs de soutènement en gabions galvanisés et plastifiés, les interventions ponctuelles au niveau des ravines transversales (protection de berges, construction de dalots, curage des ouvrages obstrués, curage de lits), la confection de fossés longitudinaux maçonnés.</p>		
<p>Route de Maniche. - La route de Maniche (zone Saint Hélène), après le passage du cyclone Noël, était impraticable sur environ 3km. En effet, la chaussée se trouvait presque complètement détruite par les eaux de ruissellement des montagnes environnantes. Les travaux identifiés ont été répartis en cinq (6) petites activités (Maniche Lots 1,2, 3,4 et Dolin-route de Maniche), exécutées par des petites et moyennes Entreprises du département du sud.</p>		
<p>Ravine Anse Colin sur Corail Sault. Les travaux ont consisté en : protection de berges en gabions, curage du lit.</p>		

Annex 3 – Economic and Financial Evaluation

a) General presentation of the ex-ante and ex-post economic evaluation

The ex-ante economic evaluation was performed in two ways: (i) a quantitative evaluation of the main road rehabilitation investment; and (ii) a general qualitative evaluation of the expected project socio-economic benefits in the two micro-regions.

The quantitative evaluation under (i) concerned the main road investments under Component 1.1 for an estimated amount of US\$10.75 million or 67% of estimated total project costs. The other physical investments at the time of appraisal were either (i) not yet identified precisely (road maintenance activities under Subcomponent 1.2 for an estimated amount of US\$450,000), or (ii) yet to be identified (socio-economic subprojects under Subcomponent 2.2 for an estimated amount of US\$2.5 million). They were not amenable to economic and financial analysis at that stage. They represented only 18% of total project costs. International evidence indicated that the benefits from road maintenance were high and those accruing from socio-economic investment with the commune, to the extent they were well managed and maintained were likely to be high as well. It was decided that for the latter that a detailed implementation and operating plan and a cost-benefit analysis will be required before reaching a final decision.

The benefits arising from non-physical investments under Component 2.1 (support to capacity building and outreach activities under the local participatory process for an amount of US\$500,000) and Component 3 (project administration and management for an estimated amount of US\$1.75 million) were rightly so recognized as intangible and hence not readily amenable to quantification. Conventional wisdom and evidence in Haiti and other countries where institutional capacity is weak indicated that these benefits were likely to be extremely high.

The ex-post NPVs or IRRs were computed for the project. They complete the quantitative economic assessment of the outcome indicators of the results framework based on the Impact Study done at project closure, in particular the traffic level that was a critical parameter for the estimation of ex-ante NPVs and IRRs.

b) Ex-ante quantitative analysis using the Road Economic Decision (RED) model

General description of the RED model. The RED performs the financial economic evaluation of improvements and maintenance projects adopting the consumer surplus approach, which measures the benefits to road users and consumers of reduced transport costs. This approach was preferred to producer surplus approach, which measures the value added or generated benefits to productive users in the project zone of influence, e.g., mainly agricultural producers, since the consumer surplus approach allows for a better judgment of the assumptions made and an improved assessment of the investment alternatives simulated. As shown under (c) the producer surplus was estimated qualitatively. The *Roads Economic Decision* (RED) model was found to be more appropriate than other models, due to the low traffic characteristics of the selected roads.

Vehicle operating costs (VOCs). The RED VOC module computes vehicle operating costs and speeds as a function of road roughness for terrain and road types (flat, rolling, mountainous, paved, graveled, earth) and motorized or non-motorized vehicle types, which are selected among several possible vehicle types. The module also requires country specific input parameters regarding road characteristics, such as altitude, percent of time driven in rainy conditions and percent of time driven in extreme conditions (hurricane). The model supplies values that are automatically generated when the technical data is not available, such as for paved roads texture

depth, number of rises and descents, speed limit enforcement, etc.

Technical road improvement alternatives. The technical assessment performed on the two selected roads identified various improvement alternatives on the different sections of the two roads, with their associated estimated costs. Based on technical considerations as well as available budget, two options were taken into selected: (i) asphalt treatment for the Northern road stretch; and (ii) gravel road with low-cost spot interventions for the South-Eastern road stretch.

Traffic growth assumptions. On the two road stretches, traffic generated during the first years following improvement works was expected to be very high. Indeed, the situation in the two micro-regions was characterized by a heavily constrained demand for transport due the extremely deteriorated conditions of road infrastructure. Most of the traffic was generated by trucks, pick-ups and buses that people use to access markets in order to sell or buy goods. It typically takes several hours for these vehicles to go one way, allowing only one rotation per day. If, for example, travel time were to be halved, which was realistic if roads were to be improved, traffic could easily double in the very short term at the current level of transport services. Given the likely entrance of new transport service providers traffic increase forecast were bound to be conservative.

Results of the RED analysis. The traffic growth assumption retained were (i) high growth during the first five years following road rehabilitation, with subsequent tapering off to the national average (about 8%) after that period. On that basis, the RED analysis gave a large positive NPV of over US\$4.7 million (IRR 39%) under conservative assumptions for the Northern stretch and a NPV of US\$0.58 (IRR 15%) for the South-Eastern stretch.

c) Ex-ante exogenous benefits

Exogenous benefits. The improvement of the two stretches of roads was expected to generate benefits going beyond the reduction of vehicle operating costs. The isolation of the rural population populations in the two micro-regions due to the poor transport conditions translated into reduced access to limited provision of key inputs to develop productive activities, and high transit and transportation losses. The improvement of transport conditions was expected to generate two main positive effects regarding agricultural farming systems: (i) an increase of the volume of sales as a result of increased productivity due to improved access to key inputs such as fertilizers; and (ii) an increase of net profits earned by local producers and traders as a result of decreased transit losses for traded crops. These benefits were expected to be significant. However they were not assessed quantitatively because of the difficulty of collecting reliable data on the farming economy.

Main project expected benefits. Despite the physical isolation and poor road and market infrastructure, at project appraisal there was significant agricultural production taking place in the two micro-regions and significant untapped potential for growth. Year-round access to roads and markets was the key to boost tradable agricultural production that needed to be nationally and internationally competitive. The lack of year-round access and high transport and transaction costs related to poor roads and access to markets led to level of production and high post-harvest losses. In fact, a major short-term benefit of the project was expected to be to ‘harvest the low-lying fruits’ first by decreasing post-harvest and transit losses related to poor and/or impassable roads. This was expected to raise incomes of smallholders by increasing farmgate prices and lowering input costs. In turn with the increase in agriculture productivity expected in the medium-term, improved roads would allow producers to access new markets leading to higher returns and providing initiatives for higher-value production. It was recognized also that increases in value-

added all along the value chains was not to be limited to rural households, since actors all along that chain were to benefit, including input suppliers, transporters, merchants, processors and exporters. Finally, improved roads were expected to lead to improvements in household well-being associated with improved access to social services (e.g., education and health) located in urban centers.

Specific benefits in the two micro-regions. The following features characteristics of the local economy were expected to enable the two micro-regions selected to respond positively to road improvements:

- 1) *Rural economy characterized by smallholders.* Rural areas in both micro-regions were and still are characterized by smallholder agricultural production. All smallholders are likely to benefit from improvement in transport conditions although to different degrees depending on their landholdings. Smallholders with less than 1.0 hectare produce both for the market and for home consumption. They also sell their labor and engage in small-scale-trading activities. Many households in this group tend to be poor and vulnerable to falling deeper into poverty. Smallholders with 1.0 to 3.0 hectares tend to hire seasonal labor to help with agricultural activities and off-farm activities. These households represent an important group in the rural economy because they tend to have sufficient assets to benefit from improvements in agricultural production and marketing. These households have the potential to intensify and diversify production, in both crops and livestock enterprises. Smallholders with more than 3.0 hectares represent a more dynamic segment of the population because they also engage in non-agricultural activities (notably commerce by women household members and transport). All smallholders were expected to benefit from road improvement, with the larger ones expected to derive relatively more benefits;
- 2) *Subsistence-oriented, but integrated into markets.* Although the rural economy is characterized by smallholders with a strong subsistence orientation, a large amount of agricultural products are traded on local markets. Producers are buying and selling different consumer goods and services, including their own labor. Fresh and processed food products are the major consumption items of the majority of households. It is to be noted that small- and large-scale traders are mostly women operating in both formal and informal marketplaces;
- 3) *Coffee, fresh fruit/vegetable and rice production in the micro-regions.* Coffee is an important cash crop for smallholders in Haiti, with about 200,000 households producing coffee on about 100,000 hectares. Approximately 1 out of every 3 rural Haitian households is estimated to be involved, to some extent, with the coffee sector. Coffee is an important commercial crop in both micro-region, with the South-Eastern micro-region (Thiotte area) being a region with high growth potential. Fresh fruit and vegetables, as well as staple like bananas and beans are important productions in both micro-regions area. St Raphaël that has the benefit of an irrigated perimeter (about 400 ha) has a substantial production of fresh products as well as rice; and
- 4) *The non-agricultural rural economy.* In terms of non-agricultural economic activity, there are no enterprises outside agriculture that employ more than a few persons in the micro-regions. But, a significant proportion of the rural population engages in some type of petty trading activities - of their own agricultural products (raw or processed) and/or various types of basic consumption goods. Some men and women engage in artisanal activities, such as sewing. There are also various retail and service activities in the town center and home based services. Most activities linked to post-harvest activities such as coffee depulping, drying and sorting.

d) Ex-post project benefit evaluation

Summary findings and conclusions from the ex-post impact study

General. The impact evaluation concluded that the project impact had been extremely positive based on the following criteria:

- 1) *Transportation costs:* They have experienced a dramatic decrease. In constant 2007 terms, transportation costs have been cut in half on the road segment from Thiotte and Anse à Pitre for coffee and cereals in the South-East and by 65% for passengers; in the North the decrease in transportation cost for beans is only 12% between St. Raphaël and Cap Haïtien and 43% for passengers;
- 2) *Travel time:* On the stretches of road that were rehabilitated travel has similarly improved dramatically. The improvement is most remarkable on the stretch of road from Thiotte to Anse à Pitre (about 40km). Trucks used to take around 6 hours due to the abysmal condition of the road; they now take 2 hours only or a decrease in travel time of about two thirds compared with the pre-project situation. In the North the decrease in travel time is not as dramatic given that only a small stretch of road was rehabilitated (8.5km). Nevertheless travel time was cut in half between Cap Haïtien (the nearest large city) and Milot;
- 3) *'Passability' of roads:* The two stretches of roads rehabilitated are now passable year round when they were impracticable several weeks yearly prior to rehabilitation; and
- 4) *Transit losses:* Based on the meetings with focus groups and interviews of reliable informants, it was determined that these costs have also been reduced considerably, way beyond the target of 30% earmarked for the PDO. It is not surprising since the transit costs variable is highly correlated with travel times that have been cut dramatically and the transportation quality that has markedly increased.

Traffic volumes and traffic growth. An important element as proxy to assess the economic impact of road rehabilitation was the increase in the volume of traffic. Based on the answers to the qualitative questions asked during the various interviews with resource persons (truck drivers) and focus groups a very rough estimate, used for the ex-post economic analysis, is 95% per year or a tripling over the past two years in the South-East (road stretch from Thiotte to Anse à Pitre), and 10% per year in the North (road stretch from Carrefour Lamort to St. Raphaël). The interesting aspect is the changing composition of the fleet on project roads. Whereas at project inception, most of the vehicles were trucks and pick-ups (the ubiquitous 'tap-taps') for both passengers and goods, the fleet had changed dramatically at project closure. The two wheelers (motorbikes used as motor-taxis carrying 3 to 4 passengers) are now the most numerous vehicles constituting 70% to 90% of the fleet (more on difficult stretches of roads) with light vehicles coming second and trucks third. Also there is the appearance of mini-buses in the light vehicle category, whereas they were not operating on the project roads at project inception.

Ex-post evaluation of economic impact

The TTDP's ex-post economic evaluation was performed using the RED model as was done for the ex-ante evaluation. However assumptions differed as they reflected projections based on the ex-post situation that were significantly different than the situation envisaged at appraisal. Current traffic data used were those collected during the project ex-post impact study (June 2013). The evolution of traffic volumes were updated based on current trends as shown in the impact study. The Vehicle Operating Costs (VOCs) were updated using the procedures of the Highway Decision Model 4 (HDMA 4). The NPV and IRR were recomputed on the above basis based on

a 15-year horizon and a discount rate of 10% corresponding to the Haiti's current cost of borrowing. The specific assumptions and results for each micro-region are as follows:

South-East corridor. This concerns the Thiotte - Anse à Pitre road stretch of 40 km which was upgraded to unpaved all weather access at a cost of US\$8.17 million. The recomputed NPV for that stretch is US\$ 0.353 million and the IRR 11%. This result is difficult to compare with the ex-ante result. Indeed it is based only on the VOCs unlike the initial study that also took into account the road-induced effects on the local coffee economy. These 'exogenous' effects were key because, at the extremely low level of traffic, the decrease in the VOCs alone did not permit to yield positive results even though the traffic was forecast to increase substantially. The situation has greatly changed in the past two years since road completion in 2011. The numbers show that the road is economically profitable based on the VOC alone. This is because of the considerable increase in traffic in the past two years estimated for the sake of this analysis at 95% per year. The hypothesis made for the sake of computation is that the huge increase would taper off in the coming five years (5%) and then plateau at 3% a year for the medium to long-run. The exogenous impact on the coffee sector was not taken into account for the ex-post analysis because since 2010 the coffee sector has experienced a crisis due to: (i) phytosanitary diseases that caused the production to drop significantly, and (ii) exogenous factors contributing to Haitian exportes to beneficiaries from better coffee prices on the international market. In the future, this situation is expected to rebound especially given the Ministry of Agriculture's (MARNDR) attention to coffee production and processing. Hence the road's IRR as re-computed is conservative.

North corridor. The selected option was for TTDP to pave the 8 km stretch of road from Carrefour Lamort to Barrière Battant for an investment of US\$8.08 million, the remainder being made passable with the construction of the bridge over the Brouhaya river but left unpaved in anticipation of the works to be implemented by EU. The unit costs for road construction estimated at appraisal were grossly underestimated. Based on the initial assumption that the entire stretch of road from Carrefour Lamort to St. Raphaël (40km) would be paved, the trend in traffic increase were correctly estimated (20% per year) but since only a small fraction was paved the increase turned out to be much less (10%). Once the EU part of the road is completed the traffic should pick up much quickly in the two years following completion (estimated at 20% per year for 2016-17) to taper off at 5% in next three years and 3% in the medium term. These estimates are conservative since a lot of traffic from RN1 is likely to be diverted to RN3 when this latter is completed since the distance from Cap Haitian to Port au Prince is shorter and the relief is less steep as one arrives on the Central Plateau. Based on the above assumptions the recomputed NPV is US\$1.7 million and the IRR is 14%.

e) Comparison of ex-ante and ex-post results

Table 1 - Ex-ante vs. ex-post results

	Ex-ante	Ex-post
NPV North (US\$ million)	4.7	1.7
NPV South-East (US\$ million)	0.58	0.35
IRR North	39%	14%
IRR South	15%	11%

As shown above, the lower than expected results at project closure are explained by the large underestimation of the road rehabilitation costs at appraisal and the long delays experienced in the completing the road rehabilitation work. This is explained also by the overestimation of the benefits (other than the decrease in Vehicle Operating Costs) in the case of the Thiottle – Anse à Pitre micro-region (South-East). The induced impact on the coffee economy did not materialize because of the crisis, clearly totally unrelated to road conditions, that this sector has experienced in recent years. In the North, the discrepancy of the results is largely explained also by the fact that only 8 km of roads were rehabilitated (as opposed to 38.8 km), the remainder awaiting the intervention of the EU.

Annex 4 - Bank Lending and Implementation Support/Supervision Processes

(a) Task Team Members

Name	Title	Unit	Responsibility/ Specialty
<u>Lending</u>			
Jayme Porto-Carreiro	Lead Energy Specialist	LCSFE	TTL
Nicolas Peltier	Sr. Infrastructure Economist	LCSTR	Co-TTL
José-Luis Irigoyen	Sector Manager	LCSFT	
Charles Feinstein	Sector Leader	LCSFP	
Solange A. Alliali	Sr. Council	LEGLA	Legal
Nadim Khouri	Sr. Natural Resources Mgt. Specialist	LCSER	Agriculture/Environment
Jean-Roger Mercier	Lead Environment Specialist	ESDQC	Safeguard (environment)
Joelle Dehasse	Country Officer	LCC3C	
Luc Razafimandimby	Economist	LCSHS	Social
Philippa Amiri	Operations Analyst	LCSFP	
Stephen Brushett	Lead Transport Specialist	LCSFP	Peer Reviewer
Ahmadou M. Ndiaye	Lead Financial Mgt. Specialist	ESDQC	FM
Luc Cosyn	Road Engineer (consultant)	LCSTR	
Patricia Macgowan	Sr. Procurement Specialist		Procurement
Hilarion Bruneau	Consultant	LOAG1	Procurement
Peter Cohen	Social Development Specialist (Consultant)	AFTOS	Social
Gilles Damais	Agriculturalist (Consultant)	LCSTR	Agriculture
Carmel André	Environmental Specialist (Consultant)	LCSTR	Safeguard (Environment)
Willy Egset	Social Development Specialist	SDV	Safeguard (Social)
Gladys Sakata	Program Assistant	LCSTR	Program Assistant
Ramon Anria	Program Assistant	LCSTF	Program Assistant
Maryse Calixte	ET Temporary	LCCHT	Program Assistant
<u>Supervision/ICR</u>			
Nicolas Peltier-Thiberge	Sr. Transport Specialist/ Assistant to the President	LCSTR/ EXC	Task Team Leader (2006-2009)
Grégoire Gauthier	Sr. Transport Engineer	LCSTR	Task Team Leader (2010)
Pierre Bonneau	Sr. Transport Specialist	LCSTR	Task Team Leader (2011-2013)
Van Anh Vu Hong	Sr. Development Specialist	LCSDU	
Jean-Martin Brault	Water and Sanitation Specialist	LCSWS	
Trish Barrett	Operations Officer	LCS	
Peter Cohen	Consultant	AFTOS	Safeguards (social)
Josué Akre	Financial Management Specialist	LCSFM	FM
Patricia Mc Gowan	Sr. Procurement Specialist	LCSPT	Procurement
Peter Lafere	Social Development Specialist	LCSSO	Safeguards (social)
Aboubacar Magassouba	Consultant	LCSPT	Procurement
Jean-Claude Balcet	Consultant	LCSTR	ICR
Jean-Roger Mercier	Consultant	IPN	Safeguards (environment)
Ross Alexander Gartley	Consultant	LCSDU	
Malaika Becoulet	STC consultant	LCSTR	
Licette Moncayo	Team Assistant	LCSTR	
Djeanane Monfort	Team Assistant	LCCHT	

Annex 5 – Beneficiary Survey Results

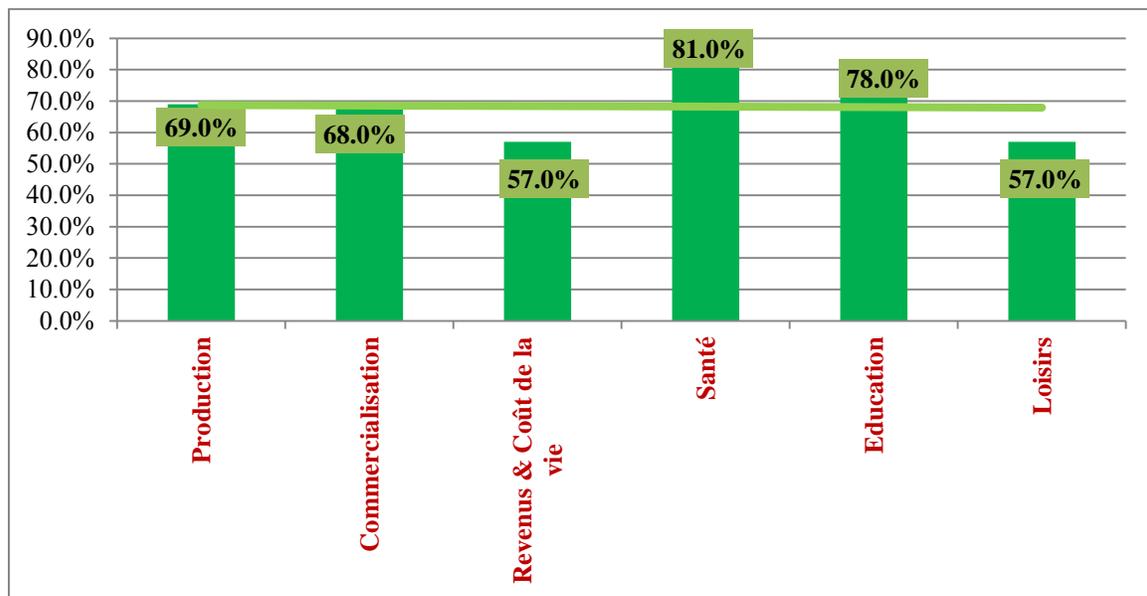
The beneficiary satisfaction survey was administered as part of the impact study conducted in June 2013 just before project closure. It was conducted through interviews of a sample of about 800 purposely selected beneficiaries and meetings with 12 focus groups (with about 18 participants each) in the two micro-regions. The survey was not conducted the areas covered by Component 4 which are located outside the micro-regions. The beneficiary satisfaction with Component 4, therefore, was not assessed.

a) Satisfaction with road rehabilitation (Component 1)

Six subject matter questions were asked to respondents to identify the impacts of rehabilitated roads on their livelihood condition, related production, trade, income generation, access to health, access to education, and recreation activities.

Overall satisfaction rate. The average satisfaction score for all subject matter across the two microregions is 68 %. As would be expected, due to the drastic decline in travel time and cost of transportation on that road stretch, the degree of satisfaction with the project is higher for the beneficiaries of the Thiotte - Anse à Pitre road segment (87%), than the satisfaction rate for the beneficiaries of road stretch Barrière Battant - Carrefour Lamort (50%).

The following graph summarizes the overall beneficiary satisfaction rate. The following paragraphs present the rate broken down along the different themes covered during the impact study.



Perceived impacts on production, trade and income-generating activities. The project development objective was, through the rehabilitation of roads, to lower the marketing costs for small producers. It was therefore imperative to question the impact of component 1 at the production, trade and income levels of beneficiaries. The following results were obtained. 92% of respondents in the South East and 46% in the North are satisfied with the positive impact of roads on their production activities. This is based on the increase of these activities (34%), increase in their profit margins (11%), improving their sales (18 %) and facilities offered faster

transport (6%).

Satisfaction with regard to health impacts. The impact on access to health care is a vital aspect of road rehabilitation. The respondents on average were 81% satisfied with the impact of road rehabilitation on access to health facilities. This was broken down as follows between the two micro-regions: 72% of respondents in the North vs. 90% in the South-East indicated that roads had a positive impact on access to health services, mostly predicated on faster and more reliable transport facilities.

Satisfaction with regard to impact on education. The impact on access to education facilities was found to be the second fundamental aspect of the rehabilitation of local roads. 78% of respondents on average perceived that the impact of road rehabilitation on access to schools was positive. This was broken down as follows between the two microregions: 60% for the North vs. 96% for the South-East.

Satisfaction with regard to impact on leisure. Access to leisure beneficiaries is the latter on which we asked respondents. 57 % of respondents on average respondents recognized that road road rehabilitation had a positive impact on leisure and recreation opportunities. This was broken down as follows: 38% in the North, and 76% in the South-East.

b) Satisfaction with territorial participatory process and socio-economic subprojects (Component 4)

The satisfaction rate with the participatory planning process and corresponding subproject financing (Component 2) was 73% on average with a difference between the North (58%) and the South East (89%) similar to the satisfaction rate with road rehabilitation. The paving of Thiotte and the environmental conservation project of Brostage (contour farming) received the highest marks. Two subprojects that failed (St. Raphaël vegetable market and the Milot artisanal market) probably contributed to the lower rate of satisfaction in the North, all the more because they were very visible.

Annex 6 – List of Supporting Documents

Project Appraisal Document, Report No: 34938 – HT, March 13, 2006

AF Project Paper, Report No: 51370 –HT, November 4, 2009

Financing Agreement Transport and Territorial Development Project, April 18, 2006

Financing Agreement AF, 2009

Baseline study, ECOSOF, Août 2007

Plan de Développement Micro-Régional (PDMR), North, May 2012

Plan de Développement Micro-Régional (PDMR), South-East, May 2012

CECI Final Report, May 2012

AVSF Final Report, May 2012

UCE/BMPAD, various quarterly reports

Financial audits 2006-2013

Project Impact Evaluation Study, Marc-Edouard Nerette, June 2013

UCE Rapport d’Achèvement, June 2013

MAP IBR



