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IMPLEMENTATION COMPLETION REPORT

HAITI

SEVENTH TRANSPORT PROJECT
(CREDIT 1756-HA)

APRIL 15, 1997

Infrastructure Division
Country Department III
Latin America and the Caribbean Region

CURRENCY EQUIVALENTS

Currency Unit = Gourde (G)
Exchange Rate for US$1.00
(September each year)

1987 - 5.00
1888 - 5.00
1889 - 5.00
1990 - 5.00
1991 - 5.00
1992 - 14.00
1993 - 14.00
1994 - 14.00
1995 - 14.00
1996 - 14.00

WEIGHTS AND MEASURES

Metric System

FISCAL YEAR OF BORROWER

October 1 - September 30

ABBREVIATIONS AND ACRONYMS

APN	Autorite Portiere Nationale
CAMP	Community Action Maintenance Program
CCCE	Caisse Centrale de Cooperation Economique (France)
DDT	Direction des Transports
ERR	Economic Rate of Return
FAC	Fonds d'Aide et de Cooperation
FY	Fiscal Year
GDP	Gross Domestic Product
GOH	Government of Haiti
HDM	Highway Design and Maintenance Model
HIMO	Haute Intensité de Main d'Oeuvre
IDA	International Development Association
IDB	Interamerican Development Bank
KFW	Kreditanstalt für Wiederaufbau (Germany)
MEF	Ministere de l'Economie et des Finances
MTPTC	Ministere des Travaux Publics, Transports et Communications
PCU	Project Coordination Unit
SAR	Staff Appraisal Report
SCCV	Service de Controle de la Circulation de Vehicules
SCR	Service de Construction Routiere
SEMANAH	Service Maritime et de Navigation d'Haiti
SEP	Service d'Etude et Planification
SEPRRN	Service d'Entretien Permanent du Réseau Routier National
TMP	Transport Master Plan
UNDP	United Nations Development Program
USAID	United States Agency for International Development
VOC	Vehicle Operating Costs

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PREFACE

This is the Implementation Completion Report (ICR) for the Seventh Transport Project in Haiti, for which Credit 1756-HA in the amount of SDR 16.6 million was approved on February 12, 1987 and made effective on May 26, 1987.

The loan was closed on June 30, 1996, compared with the original closing date of June 30, 1991. It was fully disbursed, and the last disbursement took place on October 31, 1996.

The ICR was prepared by Giuseppe Maria Bacigalupo, consultant, and reviewed by Fernando Montenegro, Urban Transport Engineer, Pierre Sooh, Task Manager, and Robert Crown, Project Adviser.

Preparation of the ICR was begun during the Bank's final completion mission on September 1996. It is based on material in the project file and on information provided by the borrower to the consultant during its mission to Haiti. The borrower contributed to the ICR by preparing it's own evaluation of the project's execution (see Appendix A).

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EVALUATION SUMMARY

Introduction

1. By the mid 1980s, Haiti was plagued with many structural economic and social problems. In addition, social and political unrest started and expanded quickly causing, eventually, the fall of the Government. The new transitional national authorities developed a strategy aimed to foster the most productive sectors of the economy, particularly agriculture, which employed 75% of the labor force. An important component of that strategy was the implementation of a transport plan that, in addition to lowering transport costs, offered the opportunity to alleviate unemployment with labor-intensive methods for road construction and maintenance (par. 1-4).

2. Prior to this loan the Bank had assisted the financing of the transport sector in Haiti with six credits and one loan, including a port project. All of them, but the latter, comprised roads and bridges' rehabilitation and maintenance, providing also extensive technical assistance (par. 5-9). At present, another road maintenance and rehabilitation project is under way (Credit 2691-HA).

Project Objectives

3. The project was designed as a sector project. Its main objective was to contribute towards achieving the country's economic and social goals by the improvement and development of roads and coastal shipping, in support of agriculture and industry started under previous projects, and continued strengthening of sector institutions (par. 10-12).

4. The project included nine components integrated in three sub-sectors. In the <u>road sub-sector</u>, there were included the rehabilitation of drainage structures and 35 km of road, construction of two new bridges, procurement of tools for labor-intensive road maintenance and technical assistance to strengthen the Transport Department (DDT). In the <u>maritime services sub-sector</u>, there was included the construction of a slip-way for boat inspection and a training center and technical assistance to strengthen the Service

Maritime et de Navigation d'Haiti (SEMANAH). The port sub-sector comprised technical assistance to the Autorité Portuaire Nationale (APN) for studies and detailed engineering for remedial works in the Jeremie Port (par. 13-14).

Implementation Experience and Results

5. The credit agreement was signed on February 12, 1987, and became effective on May 26, same year. The project was completed on June 30, 1996, after two extensions of the original closing date. The physical components in the road sub-sector were substantially achieved, but in the maritime sub-sector planned infrastructure was not built due to a lack of coordination between APN (which was to provide the land) and SEMANAH. Concerning the Jeremie Port, preliminary studies were carried out, but the detailed engineering design was not done. Strengthening of the sector institutions was partially implemented in SEMANAH, but not at all in DDT. Labor-intensive works executed by small and medium contractors (through SEPRRN and HIMO) were successfully implemented, mostly on road maintenance and rehabilitation. See par. 16-25 and 30-45.

6. The economic results were inferior to those estimated in the Staff Appraisal Report (SAR). Although the range of actual ERRs for the drainage structures were comparable to those estimated in the SAR, those for the bridges and the Gonaives-Cap Haitien road were considerably lower. The main reason was lack of maintenance after construction, which made benefits from those components not sustainable (par. 26-29).

7. Several factors affected the project, causing delays and hampering implementation of some components. The most important of them was the country's ungovernability, submerged in constant civil disturbances, which led to the coup and thereafter an international trade embargo. Also of much influence were the scarce counterpart funds, frequent changes in high ranking officials, lack of allocation of proper resources to road maintenance, little coordination between agencies and inability to follow Bank procedures (par. 46).

8. The project has provided managerial capacity and execution base for the implementation of labor-intensive works. This capacity is being utilized satisfactorily in the implementation of the ongoing Road Maintenance and Rehabilitation Project (Credit 2691-HA, par. 48-54). The political and macroeconomic environment remains unclear as to the timing of stronger economic re-activation that might alleviate unemployment and improve social services. Financially, sustainability relies on the future implementation of the road maintenance fund and the assignment of enough budget to road maintenance, following the operational plan developed during the closing mission; these two conditions would be possible to met under the assumption of a tight supervision from the Bank.

Bank Performance

9. Bank performance is unsatisfactory in the project identification, preparation and appraisal since it failed to sufficiently take into consideration the experience from six previous troubled sector projects. It performance during supervision was satisfactory specifically in setting the capacity for management and execution of labor-intensive works. Identification and preparation were mainly done under the previous credit, to which the Seventh Transport Project is a continuation. During the appraisal mission, a thorough document was developed. Retrospectively, the Bank did not assessed the risks correctly and overestimated the capabilities of MTPTC, a highly bureaucratic line ministry, to implement the changes recommended by the consultants on reorganization and staffing. The project was supervised by 13 Bank missions, involving 52 staff weeks (par. 55-58).

Borrower Performance

10. The Borrower's performance during project preparation was marginally satisfactory. The implementation was unsatisfactory. It was not as strong as it could have been due in large part to the difficult macroeconomic situation of the country, social and political unrest, frequent cabinet changes, the coup and the resulting trade embargo that Haiti suffered.

11. Structural problems with the government's budgetary system imposed serious constraints for adequate management. Significant political interference and excessive dependence on the transfer of funds from the MEF, coupled with MTPTC's weakness in contract administration caused a chronic shortage of counterpart funds.

12. The Borrower's inability to coordinate different agencies prevented the construction of the physical components in the maritime services sub-sector. In addition, compliance with loan covenants is rated deficient. See par. 59-62.

Summary of Findings

13. Overall, the project's outcome must be considered unsatisfactory. Only the HIMO program achieved satisfactorily results. APN's institutional strengthening was nil and DDT's and SEMANAH's were marginal. The training program on labor-intensive road maintenance was carried out satisfactorily.

Future Operations

14. MTPTC is taking actions that will contribute to assure project sustainability with respect to the physical components, by implementing the operational plan, under which enough funds to meet routine and periodic maintenance operations have been budgeted. In addition, under the ongoing project (Credit 2691-HA) it is intended to develop and implement a road maintenance fund.

Lessons Learned

15. There were derived sector and project lessons. Sector lessons are:

a) In the case of countries like Haiti, with overwhelming social and macroeconomic problems, an overall development plan should be established wherein the Transport sector would be an instrumental component to facilitate the Government's objectives.

b) In view of the socioeconomic conditions and the scarce financial resources of Haiti, the transport infrastructure should assure the physical integrity of the country's network, through a careful planning process in order to optimize the assignment of the available funds.

c) Labor-intensive methods utilized by small and medium contractors constitute a suitable tool to mitigate unemployment while achieving acceptable rehabilitation and maintenance work.

Project lessons are:

a) The implementing agency should be familiar with Bank procurement procedures. In case of institutional weaknesses, early specific technical assistance should be included in the project to avoid delays. Prior to awarding works contracts, contractor's qualifications should be carefully reviewed.

b) Adequate coordination among different implementing agencies should be assured to avoid conflicts, such as those in the project between APN/SEMANAH and DDT/SCCV concerning land allocation and axle load control respectively.

c) Accounting systems of the various implementing agencies should be compatible and designed with proper technical procedures to facilitate an appropriate follow up and subsequent audits.

d) The Project Coordination Unit (PCU) should be given the financial means and personnel continuity to perform efficiently its task.

e) The amount of counterpart funds should be correctly assessed at the time of the appraisal, and if necessary lowered to be within the Borrower's real possibilities.

f) It is convenient to implement labor-intensive sub-projects in areas where the unemployment originates, preventing migration from rural to urban areas.

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PART I. PROJECT IMPLEMENTATION ASSESSMENT

A. INTRODUCTION

Background

1. In the mid eighties Haiti was plagued by a number of serious structural problems. Its level of poverty was unique within the Western Hemisphere (a per capita income of US$ 350), together with about 50% of the labor force unemployed or under-employed. Almost 75% of the population lived in rural areas, and suffered from shortage of cultivable land due to deforestation and subsequent soil erosion. As a result, agriculture production fell steadily on a per capita basis, followed by a substantial rural-urban migration. In addition, the labor-intensive export assembly industry, established in the mid seventies, and which had created more than 50,000 jobs by 1980, was semi-paralyzed due to the world recession experienced during 1980 and 1983. Economic recession led to increasing political and civil unrest that expanded quickly, damaging the economy even further. The unsustainability of the overall situation resulted in the fall of the national authorities in February 1986, and a transitional new Government came into power.

2. The Government of Haiti (GOH) developed a strategy to foster the most productive sectors of the economy, assigning high priority to agriculture, which employs about three quarters of the country's labor force. An essential component of the strategy was to reduce the transport component of agricultural production cost and improvements of access to both domestic and foreign markets. The road and maritime sub-sectors were also to be strengthened. The rural population would be the principal beneficiary from improved road access and coastal shipping services, while the entire economy would benefit from savings in Vehicle Operation Costs (VOC), improved coastal shipping operations and marketing of agricultural production.

3. In addition, the transport sector offered a suitable opportunity to alleviate the high unemployment in both rural and urban areas by means of labor intensive methods for road construction, rehabilitation and maintenance. The Seventh Transport Project was planned and implemented to further this strategy with financing through the International

Development Association (IDA) under Credit 1756-HA, signed on February 12, 1987, and effective on May 26, 1987.

4. At the request of the new Government in office in February 1991, following the national elections the previous December, an urban highway component was added to the project, as part of a major restructuring.

Bank Experience

5. Since 1956, and prior to this credit, the Bank Group had extended one loan and six credits to Haiti for its transport sector for a total of US$ 73.0 million equivalent. The first Bank Loan 141-HA (US$ 2.6 million) comprised maintenance and rehabilitation of about 1,000 km of road, and was completed under an Interim Highway Credit (32-HA) for US$ 350,000 in 1962. Political and managerial problems hampered the correct implementation of these projects, mainly because disputes occurred between the Government and IDA on the standards applied, as traffic grew more rapidly than forecast. After more than a decade, the Bank started operations again within the transport sector. The second and third projects (Credits 478-HA, for US$ 10.0 million in 1974, and 556-HA, for US$ 20.0 million, in 1975), included the reconstruction of 250 km of the Northern Road and the reconstruction of a number of bridges. These projects provided all-weather access between Port-au-Prince and the main northern city and port, Cap Haitien, as well as linking the Artibonite Valley to the most important food consuming centers. They also financed and initiated vehicle axle-load control.

6. The Fifth Transport Project (Credit 807-HA, for US$ 15.0 million, 1978), comprised the upgrading and paving of 54 km of roads in the Northern Plains, a feeder road to Jeremie Port, construction of the Hypolite and Trois Rivieres bridges and new terminals for shallow draft vessels Port-au-Prince, Port-de-Paix and Jeremie. Project supervision was weak, with no missions visiting the project for an entire year. The Project Completion Report (PCR) stated that most of the road construction deficiencies could have been avoided by close monitoring of the consultants in charge of supervision. It concluded that the success of future projects in the sector would depend upon stricter supervision.

7. Under the Port Project (Credit 1121-HA, for US$ 11.0 million, in 1981), co-financed by the Kreditanstalt für Wiederaufbau (KFW), a berth for cruise ships, a wharf for break-bulk cargo and another for Ro-Ro general cargo vessels, were constructed, together with a wharf for coastal vessels at Cap Haitien. In addition other small ports were rehabilitated or constructed. The PCR concluded that, given the subsequent economic developments in Haiti, the investments in the Cap Haitien Port were premature and the viability of the project's coastal shipping ports would depend upon an appropriate pricing policy and institutional improvements in SEMANAH. This pricing issue implementation was included as a covenant in the Seventh Transport Project, but it was not resolved.

8. The Sixth Highways Project (Credit 1220-HA, for US$ 14.0 million, in 1982), continued this chain of projects designed to address basic infrastructure needs to support Haiti's economic growth and social objectives. The project was based on a country development plan derived from a Transport Master Plan (TMP), prepared in the late seventies, and which served as a framework for program coordination among the principal international financial agencies involved in the transport sector (IDA, IDB and USAID). Its main objectives were the intensification of road maintenance and the upgrading or rehabilitation of about 1,000 km of gravel roads to paved standards, the improvement of another 1,000 km of secondary roads to gravel standards, and the rehabilitation and upgrading of many aging steel and concrete bridges. The principal role of IDA was to finance the rehabilitation of 57 bridges and other drainage structures, and the rehabilitation of about 100 km of the Northern Road between Gonaives and Cap Haitien, and to provide technical assistance to the maintenance branch of the implementing agencies, the Service d'Entretien Permanent du Réseau Routier National (SEPRRN) and the Ministere des Travaux Publics Transports et Communications (MTPTC), respectively.

9. The Sixth Highway Project did not fully achieve its objectives. By late 1983 USAID withdrew its support to Haiti, suspending its long standing technical assistance and financial backing, impacting at the project level on the technical assistance provided to SEPRRN. Social unrest and riots began following the rapid deterioration of the country's economic and social fabric. The GOH had to reduce public expenditure because of scarcity of financial resources, from which time the provision of counterpart funds became a major constraint on project implementation. Budget allocations for road maintenance were cut dramatically and the targets agreed at negotiations were not met. Unforeseen time lags, increasing costs of consulting services, and the need to bolster the technical assistance to the road maintenance program reduced the finance available for the original bridge rehabilitation component and rehabilitation of the Northern Road (although in this case the contractor failed to perform satisfactory work because it might have overestimated its capabilities when accepting the contract). It was agreed with GOH that finance for the outstanding works (the second phase of the bridge rehabilitation and part of the Northern Road) and further technical assistance (labor intensive methods in road maintenance, through SEPRRN) would be included in the Seventh Transport Project.

Project Objectives

10. The objectives of the project were to: (a) improve and rehabilitate roads and bridges; (b) improve coastal shipping operations; and (c) continue strengthening the sector institutions through programs of staff training and technical assistance.

Evaluation of Objectives

11. These objectives were in line with GOH's major development policies, improving living conditions in rural areas in order to retain the population in site and creating a favorable environment for private investment, employment growth, and some access to social resources. They were also in accordance with the Bank's country and sector

strategies that emphasized the importance of maintaining and improving the access of rural communities to social services and markets. These basic objectives remained unchanged during project implementation, although after a loan amendment, on April 1991, the project was restructured and most of the remaining funds were reallocated to the HIMO sub-project, which was highly oriented to assist technically and strengthen local communities in the creation of jobs, together with fostering private sector to participate in road maintenance activities.

12. The project's objectives were clear, concrete and consistent with the overall Bank lending policy. This included support to the agricultural sector, especially in the northern rural plains of the country. This was to be achieved by the provision of improved highway accessibility, coastal shipping operations, coastal shipping port facilities, strengthening of the Government's sector institutions, and pushing forward appropriate initiatives to cope - at least partially- with the soaring unemployment reigning in the country.

13. IDA collaborated in developing the project and assisted the GOH in project identification and preparation. The project included nine components split among three sub-sectors, namely:

(a) **Roads**

(i) continuation of works started under the previous Sixth Highway Project, Credit 1220-HA, i.e., the rehabilitation of bridges and drainage structures, located on departmental and secondary roads, totaling 38 km;

(ii) construction of the Fer-a-Cheval Bridge (which had collapsed) and the Guayamouc Bridge (which was unserviceable);

(iii) rehabilitation of about 35 km of the Gonaives-Cap Haitien road (deferred from the Sixth Highway Project);

(iv) acquisition and utilization of tools, equipment and spare parts for road maintenance;

(v) technical assistance to strengthen the staff skills of the Direction Des Transports (DDT) in respect of planning, road maintenance, equipment management, and support of a program to improve labor-based techniques for secondary road construction and maintenance.

(b) **Maritime Services,** the components in support of the Service Maritime et de Navigation d'Haiti (SEMANAH), included:

(i) construction of a slip-way and yard for inspection and minor repairs of vessels;

(ii) construction of a training center for seamen;

(iii) technical assistance to strengthen SEMANAH's administration, management and operation.

(c) **Port Improvement**, assisting the Autorité Portuaire Nationale (APN) with a detailed study of the problems caused by silt on the mooring basin of the Jeremie Port, preparation of preliminary studies and, following IDA review and approval, preparation of detailed engineering for the remedial works.

14. The responsibility for project execution was divided among three implementing agencies: (a) DDT for the roads and bridges, (b) SEMANAH for the maritime regulatory service facilities, and (c) APN for the Jeremie port engineering studies. A Project Coordination Unit (PCU) was established to assure proper coordination and monitoring of implementation, as well as to produce progress reports. The PCU comprised the Directors of DDT, SEMANAH and APN, and a senior representative of the Ministere de l'Economie et des Finances (MEF) -to which APN reports-, chaired by the Director of DDT. A qualified and experienced engineer, responsible for the daily follow up of project implementation was also appointed as a Project Implementation Officer. Consulting services and technical assistance were contracted to provide engineering, supervision and technical support to the implementing agencies in charge of each component of the project.

15. The total cost of the project was estimated in the Staff Appraisal Report (SAR) at US$ 24.0 million, with a foreign exchange cost of US$ 18.7 million (representing 78% of the total project cost), and local costs of US$ 5.3 million equivalent. Included in this cost were physical and price contingencies, which represented 10.25% of the total base cost. Physical contingencies ranged from 5% for civil works for which detailed engineering were completed, to 15% for items for which only preliminary estimates were available. Price increases for both local and foreign costs components were assumed at 3% for FY87 and 1% for FY88-FY89, in accordance with Bank Guidelines on expected price increases. The IDA credit of US$ 20.0 million (equivalent to SDR 16.6 million) was to finance the full foreign exchange costs and 25% of local costs. The GOH was to finance the balance of US$ 4.0 million equivalent in local currency.

B. ACHIEVEMENT OF OBJECTIVES

16. **Improvement and rehabilitation of roads and bridges**. The project accomplished substantially this objective.

17. **Drainage Structures**. Contractors finished the construction of eight 16-meter bridges and 27 culverts (2m x 2m). Works were completed between the beginning of 1987 and the first quarter of 1990 within the SAR's estimated schedule. Three fords included in the SAR were not built. The final construction costs totaled US$ 7,652,214 equivalent, compared with the SAR estimate of US$ 8,663,900.

18. **Bridges**. Contractors completed the construction of: (a) the Fer-a-Cheval bridge (four 20-meter spans), on the Mirebalais-Balladere road, and (b) the Guayamouc bridge at Hinche (four 20-meter spans + 10 meters). Both were built in 1988, and their final cost was US$ 4,692,368 equivalent, while the SAR estimate was US$ 3,600,300. These works were completed in less time than estimated in the SAR. The length of the Guayamouc bridge was enlarged to 90 m from the 80 m indicated in the SAR.

19. **Road Rehabilitation**. The original rehabilitation program that included the strengthening of 20 km of the North Road and spot repairs and surface dressing on additional 15 km of the road, giving a total of 35 km, was modified with IDA agreement, to include the whole length of 96 km of the road.

20. **Improvement of Coastal Shipping Operations and Port Improvement.** This objective was not achieved. Regarding the civil works for both the slip-way and the training center, no more than the architectural and engineering designs were completed. With respect to the remedial works and improvements of the Jeremie port, only the consulting services for engineering investigations and a study of alternative remedial works, jointly with the economic feasibility of these alternatives, were completed. The design and detailed engineering was not undertaken.

21. **Strengthening of Sector Institutions.** The achievement of this objective was marginal. Although two studies to strengthen the sector institutions (DDT and SEMANAH) were carried out by foreign consultants hired under the program, almost nothing was implemented, particularly in respect of DDT. We should highlight that the project was virtually stopped for three years during the embargo and political problems in the country did not provide a stable background environment for institutional development.

22. **Macroeconomics Policies**. The completion of the civil works in the road sub-sector provided reliable access to the rural areas whose population benefited from the project through the transport cost savings. Also, the Community Action Maintenance Program (CAMP), and later sub-projects carried out by the Haute Intensité de Main d'Oeuvre program (HIMO) created a number of jobs that helped in alleviating to some extent poverty and unemployment as long as financial aid from the Bank was available and used properly. However, when the coup d'etat took place in September 1991, most of the benefits were drastically reduced and, in the following three years, economic mismanagement and an international trade embargo led to a sharp decline in living standards. Merchandise exports fell from about US$ 200 million in 1991 to some US$ 60 million in 1994, and GNP per capita fell from US$ 320 in 1991 to US$ 220 in 1994.

23. **Transport Sector Policies.** A Road Taxation Maintenance Funding Study was successfully completed under the project. The study concluded that revenues from road user charges should be enough to cover all routine and periodic maintenance expenditure, once the network has been rehabilitated and tax collections are improved. The study also stated that of the US$ 6.5 million per year spent on maintenance and rehabilitation, just US$ 1 million was spent on works, compared with a need of about US$ 15 million. A

follow up study (to be funded under the ongoing Credit 2691-HA) will start in the near future aimed at generating a coherent roads funding strategy.

24. **Institutional Development**. The objectives of further institutional development on DDT failed, although a good study to restructure its organization and job reclassifications, together with training on planning methods, was done by a consulting firm. SEMANAH has been successfully restructured with three new divisions, and under the program various actions were implemented, including: formulating a Maritime Code, compiling a safety manual for vessels and a ship registration code, and provision of an inspection manual for coastal vessels and sailor's registration proceedings.

25. **Physical Objectives**. In the road sub-sector, all physical targets were completed (see par. 17-19).

26. **Economic Results**. The economic re-evaluation of the project and the comparison of its results with those of the SAR has been hampered by the loss of all the Bank files related to technical project preparation, due to various changes in the Bank's regions structure, internal movements and many government changes during an unstable political period in the country. Therefore, the economic evaluation of the project components and the risk analysis considered at that time could not be reviewed. Since the completion of the civil works on the road sub-sector, no routine or periodic maintenance has been carried out at all. Therefore VOCs should have been higher than those considered at appraisal, and the traffic growth rate lower than that considered at SAR. The traffic counts handed over by the Borrower during the closing supervision mission are not updated (the latest records are April 1990) and not reliable, showing, for example, the same average daily traffic existing ten years ago on the Gonaives-Cap Haitien section. So, the economic analysis to compare ERRs assessed at appraisal required more assumptions than usual, but the indications are that benefits of the main components (Northern Road and principal bridges) were lower and less sustainable than expected.

27. The assumptions made for the economic post evaluation considered: (i) traffic growth as same rate as GDP since 1990; (ii) unit VOC same as in SAR; (iii) no maintenance costs as no maintenance was undertaken. Actual construction costs were used.

28. The results of the economic evaluation show a diminution compared with the estimated in the SAR. Thus, as can be seen in Table 9 (A) for Drainage Structures, while the estimated EER ranged from 16.2% to 87.3%, the actual go from 17.3% to 77.9%; (B) for the two main bridges estimated ERRs were 18.3% (Guayamouc) and 120.2% (Fer-a-Cheval), while the actual are 13.8% and 87.3%, respectively; and finally, (C) for the Cap-Haitien road, the estimated ERR was 28% and the actual 19%. For the whole project, the average cost-weighted ERR derived from the SAR estimates was 39% and the actual 31%, showing a loss of more than a fifth from the estimated originally.

29. During the mission, the Gonaives-Cap Haitien road section, rehabilitated in early 1995, was entirely toured. After only five years in service it had deteriorated. The

reasons for this deterioration are: the absolute lack of maintenance and the heavy vehicle traffic on the road (operating overloaded and therefore causing damage to pavement structures and bridges). This road is one of the main national roads in the country.

C. IMPLEMENTATION RECORD AND MAJOR FACTORS AFFECTING THE PROJECT

30. The project was scheduled to start in mid 1987 and completed on June 30, 1991. Soon after launching, some problems arose due to civil unrest and violent political demonstrations and some civil works to be carried out on the road were affected and had to stop. Even though the overall performance for the first three years may be considered satisfactory, political changes and an increasing social unrest, motivated some delays that slowed the project, the climax being the coup and the sanctions imposed thereafter by the international community.

31. Some components of the project were only partially achieved. Concerning the physical works, only those included in the road sub-sector were completed, with a considerable delay in the Northern Road, as compared with the schedule estimated in the SAR. The civil works foreseen for the maritime sector could not be accomplished, nor the full technical assistance for the remedial works on the Jeremie port. The strengthening of the sector institutions, the studies and training included in the SAR were carried out, but were not fully implemented. The details are summarized as follows.

Road Sub-sector

32. **Road Rehabilitation**. The original rehabilitation program that included the strengthening of 20 km of the North Road and spot repairs and surface dressing on additional 15 km of the road, giving a total of 35 km, was modified with IDA agreement. The reason was severe degradation of the entire Gonaives-Cap Haitien road resulting from lack of maintenance during the period between the time of preparation of the program, when a comprehensive study of the road network was carried out in 1981 by a consulting firm on the Fifth Highway Project, and the actual contracting of the works. For the worse, the condition of the road deteriorated heavily during the rainy season. As a result, the whole link between Gonaives and Cap Haitien, of 96 km, had to be rehabilitated.

33. The first works contract, signed under Credit 1220-HA in 1983, with a contractor whose performance turned out to be inadequate, was rescinded in early 1987. A new contract under Credit 1756-HA signed in mid 1987, was based on the scope of the works contracted in 1983 under the previous Sixth Highway Project. The new contract was therefore expanded to include additional works needed due to the deterioration of the road that took place since 1983. The expansion of the scope of the works was made possible through parallel financing obtained from the Caisse Centrale de Cooperation Economique (CCCE), that also provided the counterpart funds which GOH should have contributed.

As a result, the Gonaives-Cap Haitien road was divided into three sections: A (30.2 km), B (38.7 km) and C (27.3 km). IDA financed the works on sections A and C, while CCCE on section B. The works were eventually accomplished under the good supervision of a foreign consulting firm. The final costs were US$ 5,681,190 for sections A and C and FF 19,871,457 for section B.

34. Along the construction period (which started in April 1988) there were delays in payment due to a chronic lack of counterpart funds and political instability caused by frequent changes within the GOH's cabinet, which led to poor management that resulted in cash flow shortages. The contractor stopped the works in October 1988, following non payment of local counterparts. Seven months later the works recommenced after the signing of a major amendment of the contract in May 1989, but this was not without additional costs due to further deterioration of the road and a penalty for work stoppage. The entire link was completed in 1990.

35. **Road Maintenance.** The technical assistance for SEPRRN was provided by a consulting firm which was actively involved in training MTPTC's personnel before the beginning of the project, and then it was continued with the services of a personal consultant that was hired later on. Both had good performance. The main problem was the chronic lack of funds to allocate on maintenance, far below the needs.

36. Under the project, SEPRRN was given equipment and diverse tools for road maintenance and managed to undertake either construction or road maintenance of departmental and feeder roads, working along with 56 communities under the Community Action Maintenance Program (CAMP). Within this program 666 km of secondary and departmental roads were maintained. Nevertheless, due to fund shortages that impeded continuity of the works, CAMP with 27 communities was stopped in December 1987 (the program had not received any payments since August 1987). The works were resumed later on, but because of an increasing shortage of budget allocated to SEPRRN, this task was discontinued. Only after a major amendment on April 1991, which implied a restructuring of the Project did the works start again under a new unit within the MTPTC called Unité de Coordination d'Haute Intensité de Main d'Oeuvre (UC-HIMO) to which all the remaining funds of Credit 1756-HA, along with the one from Urban Development Credit 1338-HA and Special Fund SF1-HA, were reallocated.

37. In view of the critical level of unemployment and the accumulated backlog of infrastructure maintenance, the new GOH decided to finance a three year priority labor intensive Road Maintenance Program with those resources which amounted to about US$ 4,000,000. An additional provision of US$ 800,000 was given out by the Fond d'Aide et de Cooperation (FAC) to GOH in order to finance the local counterpart and to assure a revolving fund for the Program. The main objectives of the program were: (a) generate employment, (b) carry out some priority maintenance activities on the road and drainage networks and, (c) test management tools and labor techniques proposed for both urban and interurban sub components. IDA agreed to finance the purchase of materials, tools, fuel and supplementary staff working hours, plus the expenses of the UC-HIMO, comprising a foreign labor intensive expert and a local accounting firm.

38. **Project Amendment**. According to these changes, a major amendment was necessary and the funds were reallocated as shown in Table A, below. The closing dates of the two referred credits were extended: Credit 1338 and SF1 to December 31, 1991 and Credit 1756 to June 30, 1992.

Table A: Final Allocation of Credit Resources

Category	(SDR)	
	Original Allocation	Amendment
1. Works for Parts A and B	11,320,000	10,850,000
2. Goods for Part A	1,180,000	800,000
3. Technical Assistance, Training, Consultants' Services and Audits:		
(a) for Parts A and B	2,450,000	4,650,000
(b) for Part C	210,000	300,000
4. Unallocated	1,440,000	-
Total	16,600,000	16,600,000

39. HIMO work was undertaken in two phases, the first phase from May 1991 to June 1993, the second phase when the project was reactivated in 1995 until the new closing date of June 30, 1996. Under Phase I, eight sub-projects were fully accomplished and another two partially completed. Its total cost was US$ 1,626,000. Under Phase II, five sub-projects were completed and another four started. In addition, materials for another two sub-projects were purchased. The six uncompleted sub-projects are going to be continued under Credit 2691-HA. The total cost of Phase II was US$ 3,840,000, financed by IDA entirely.

40. At the beginning, the tasks had some delays because the staff teams were just formed and faced certain difficulties with the bureaucratic procedures to which the new officials were unfamiliar and for some months very little progress was made. The presence of a resident representative in the country would have solved most of these problems. The work pace increased and in September 1991, the credit disbursement reached approximately US$ 120,000. Following the coup, IDA suspended payments and the works slowed down. In September 1992, due to the devolution of G 3,980,000 (US$ 800,000 equivalent), for a double payment made to a consulting firm (this fact was detected later by the auditors), the pace of the works sped up, with US$ 240,000 disbursed in November 1992, and from then on slowed down until there were no more funds available by June 1993. After three years of trade embargo, the legal authorities were reinstalled by mid 1995 and the project was reactivated and the non-disbursed amount (US$ 3.71 million) was applied to Phase II given the success the program had

shown. The HIMO component has turned to be an outstanding part of the Project and was given technical and financial continuity by means of the ongoing Credit 2691-HA.

41. **Technical Assistance for DDT**. A foreign consulting firm completed a study on the institutional and technical issues of DDT. A number of recommendations were made for institutional improvements in accordance with DDT and an engineering council, reporting directly to the Minister. Not much follow-up was made on that study, due to continuous political changes in the MTPTC that have occurred since the study was completed. When the new Administration took office in February 1991, another comprehensive Institutional Review of the whole Ministry was undertaken with financing from the IDA's Special Fund SF1-HA. This study was well received by the new GOH, and its recommendations were to be included as an input in the new Road Maintenance Project, then under preparation, although no changes have been done so far. The technical issues of the task fulfilled by the consultant firm -developed for the Service d'Etude et Planification (SEP)-, included sector data banks, methodologies on maintenance planning, economic feasibility of road improvement, analytic methods to derive unit costs on road construction and training for a number of staff engineers on the HDM III model used for performing the feasibility studies of two road sections within the training program. This part of the technical assistance was not implemented.

Maritime Services

42. **Coastal Shipping**. Regarding the civil works for both the slip-way and the training center, no more than the architectural and engineering designs were achieved. Despite some problems related to some design aspects with the boat repair facility (which was later revised) and certain over-design of the training facility, the key conflict which impeded any progress in the works construction was an internal dispute between SEMANAH and APN concerning the land allotment needed for those purposes, which was to be acquired from APN.

43. SEMANAH was created by Decree 11 of March 3, 1982 as part of the Government's agreement under the Port Development Project (Credit 1121-HA), which defined its functions and organization. The agency is in charge of the regulation and administration of the maritime services, including efficiency and safety of shipping operations. SEMANAH has no financial resources of its own (to which it has the right under the provisions of Decree 11). Only eight months after its creation, SEMANAH's right to collect fees from coastal and sea-going ships was taken away from it without any legal basis and given to APN, leaving SEMANAH totally dependent on allocations from the Government's general budget. Through the years those allocations proved to be insufficient to ensure adequate performance. From FY 88 to FY 91, the budgeted financial resources stood at US$ 200,000, whereas the minimum agreed budget under the project should have been an average of about US$ 1,000,000.

44. A foreign consulting firm was hired in order to develop operational efficiency and to establish a training program for seamen. That technical assistance proved to be quite good and the consultants prepared a Maritime Code and Safety and Inspections

regulations, but due to GOH's inaction neither of them were approved nor enforced. Nevertheless, the partial restructuring of SEMANAH which was made following recommendations of the consultants, provided some managerial benefits.

45. **Port of Jeremie**. The amount of money considered at appraisal for allocation to APN was not enough for the three stages of remedial works. In fact, the financial resources just met the costs of the basic studies and designs. At present, the APN authorities are considering a combination of two alternatives developed by the consultants, but its preliminary high cost would make it difficult to justify.

46. To sum up, the factors which impacted on the project are as follows:

(a) Factors not subject to government control: these factors include a high degree of ungovernability in the country, exacerbated by a constant social restlessness, and finally the overthrown of the government which led to the embargo's impact, by far the worst negative factor faced by the project.

(b) Factors subject to government control: these factors include the constant turnover of high-ranking officials, recurrent scarcity of counterpart funds, lack of allocation of appropriate resources to road maintenance and to the sector agencies, slow response to enforce the Maritime Code and other regulations, inaction to enforce the load axle control, and finally absolute lack of coordination between agencies (APN/SEMANAH, on land allotment; and DDT/SCCV on axle load control).

(c) Factors subject to implementing agencies control: these factors include lack of experience regarding the Bank's procedures and regulations on the type of project under execution and neglect in implementing the recommendations and products derived from technical assistance.

47. The final cost of the project amounted to US$ 25.33 million, or 5.54% greater than the original estimate, although it must be taken into consideration that the project was restructured, and some funds to be invested in civil works and goods were diverted to strengthen the labor intensive component. From the beginning of the project until late 1991, almost 85% of the loan was disbursed, keeping a fairly good track record compared with the estimated schedule. Then, after the coup, the release was nil until October 1995, soon after the program was reactivated, and the remaining funds were totally disbursed. The credit closed on June 30, 1996, five years later than the original closing date.

D. PROJECT SUSTAINABILITY

Political and Macroeconomic Sustainability

48. Haiti's economic and social situation remains uncertain. Regardless of what happens in the transport sector, the sustainability of the project benefits depends on improvement in social stability. Considering the macroeconomic variables of the country

unless economic re-activation soon starts to show results, especially in terms of higher employment and improved social services, unmet expectations could lead to social and political instability.

Financial Sustainability

49. Public sector finances are weak. There is an unbalanced equation between revenues and expenditures, with a projected increasing deficit and growing social obligations in health and education, so there is little chance to maintain budget allocations to road maintenance, as it has always been in Haiti (see par. 6-9). However, the future implementation of a special financing mechanism based on user charges (such as a Road Maintenance Fund) might ensure revenue allocations for road maintenance. As a covenant clause of the ongoing Credit 2691-HA, the study and implementation of such scheme should provide some financial sustainability to the project.

50. The principal project benefits have been in the development of labor-intensive maintenance work. This would sustain rural employment and help reduce the drift of population to the urban area of Port au Prince. It would also prevent a deterioration in the quality of the secondary road network, and on the main road network by keeping the drains clear, an important factor in maintenance given the tropical climate of Haiti. Funding for labor and materials for this maintenance will come from the on-going sector credit in the short term. In the medium and longer term a reform of public sector finances, both at the national level and within the transport sector will be needed if further dependence on IDA funding is to be avoided. Therefore, financial sustainability depends on Haiti's ability to continue attracting donor and other concessionaire multilateral finance, and to implement user-charges mechanisms coupled with lowering the expenses, which might be achieved by enforcing axle-load control and performing routine road maintenance activities.

51. Funds are expected to be allocated to maintain the roads under this project as detailed in the operation plan agreed with MTPTC during the closing mission. If this plan is followed, there is a good chance for a reasonable sustainability of the program.

Institutional Sustainability

52. Benefits of reconstruction of the road sector depend on its continued routine maintenance. The lack of adequate funds from user charges and the impossibility of increasing them in the short term makes sustainability of the benefits of this project component dependent on a continuation of foreign aid. This is being provided by the on-going Transport Sector Project in the short term, but longer term financial sustainability must be resolved in the course of the new sector project.

53. The Maritime Code, and other sector regulations (see par. 41-42), depend on the passage of legislation by the Congress. The technical work has been completed satisfactorily. The implementation of the new laws and sustainability of the regulatory

regime depends upon the availability of financial resources to SEMANAH. GOH is tabling in Congress the implementation of Decree 11 establishing independent sources of finance for SEMANAH.

54. Lack of institutional capacity and an inappropriate structure make sustainability of the maintenance program questionable. However, this issue is being addressed in the on-going sector project by studies for a new institutional structure and continued technical training.

E. BANK PERFORMANCE

55. The Bank spent nearly 90 staff weeks to identify, prepare and appraise the project, including 112 person-days in the field. A total of 52 staff weeks were spent on supervision, including 148 person-days in the field.

56. Project identification and preparation: Concerning project identification, the Bank's performance can be rated **Unsatisfactory**. Credit 1756-HA was mainly a continuation of a previous project (Credit 1220-HA) that could not be completed because of a number of problems related to the country's governability and the lack of national funds to meet the counterpart share. Furthermore, physical and financing targets were not reasonable in view of the failures of the six previous projects. The preparation stage should be rated **Unsatisfactory**, considering the problems that arose later during the project implementation, such as the physical components of the maritime sub-sector or the delays caused by the little knowledge of Bank procedures, among others.

57. Project appraisal: **Unsatisfactory.** Project appraisal, in a thorough document, properly identified the key arrangements needed for successful project completion. The appraisal mission was staffed with diversified skills suitable for the task. Some issues were clearly identified, especially two main subjects: the level of road maintenance budgeting and the institutional strengthening for effective planning, management and operation, although the experience drawn from the six previous loans/credits indicated that the risks were not entirely taken into account. Both continue to be major issues today as shown in the new Road Maintenance and Rehabilitation Project appraisal report. Project design was straight forward and aimed at strengthening DDT and SEMANAH. However, even though the agencies reporting to MTPTC (DDT and SEMANAH) were included together with APN within the Project Coordination Unit, the conflict on land allotment, which resulted in the non accomplishment of the civil works in the maritime sub-sector, was not foreseen. Unlikely sustainability of benefits derived from physical road components, since preventive road maintenance was deferred, was not predicted rightly in spite of Bank's experience from the previous sector projects.

58. Supervision: **Satisfactory**. Project implementation was monitored closely by Bank periodic missions drawing attention to potential difficulties and identifying the major setbacks to project implementation. Nine supervision missions were sent from the start of

the project until the embargo, and, when it was reactivated up to the final closing date, five more. The status and progress of implementation was well reported in different reports and aide memoires, which promptly identified problems and recommended follow-up actions to be taken by the implementation agencies. Bank missions discussed problems with Haitian authorities, offered comments and suggestions. Physical and financial targets were periodically revised. The presence of a permanent representative might have facilitated better understanding of Bank procedures by implementing agencies.

F. BORROWER PERFORMANCE

59. Preparation: **Marginally Satisfactory**. As a result of the macroeconomics and social constraints challenging the country, and the fact that a new transitional Government was in power, the Borrower's participation in the preparation process at that difficult time was less than satisfactory.

60. Project implementation: **Unsatisfactory**. Bridges construction and road rehabilitation works met their targets. Maintenance was well below expectations and for that reason the roads deteriorated faster than expected. Qualified and experienced personnel left DDT and technical staff suffered a high turnover during implementation. Performance on labor-intensive road maintenance was better than could be anticipated after so many, and radical changes, and proved to be one of the successes of the project. The internal dispute between APN and SEMANAH was a major failure.

61. Most foreign contractors and consultants performed in a satisfactory manner. However, some contracts encountered technical and administrative problems causing delays (about eight months, without taking into account the coup and its aftermath). Supervision and project monitoring, carried out by consultants, was mostly fair.

62. Compliance with loan covenants: It was **Deficient** in light of emergency context. The GOH was not able to fully comply with the covenants agreed, especially those concerning maintenance budgeting and the enforcement of axle load control, which had a very negative impact on the road condition, allowing its early deterioration. Timely maintenance would have prevented extensive and costly damage at a fraction of the cost for the repairs. Preparation of annual financial and technical audit reports were always behind schedule. On the maritime sub-sector, the international port tariffs studied under the project were not put into effect; neither were the coastal tariffs, because the related study was never made. Budget allocation to SEMANAH was a minimal fraction of the agreed yearly amounts.

G. ASSESSMENT OF OUTCOME

63. The overall rating of the project is just **unsatisfactory**. As discussed in the previous paragraphs and given the implementation scenario, although all the physical road components were implemented only the labor-intensive work program stands out. But the sustainability of their benefits will depend on a proper road maintenance funding and a continuing stream of financial assistance, both still uncertain. Given HIMO's, good implementation track record so far, this component is going to be expanded to include more urban and interurban routine maintenance activities under the ongoing Credit 2691-HA. Project sustainability will depend on funds availability.

64. The project failed in fulfilling its institutional objectives. Two rather good studies on agency strengthening (DDT and SEMANAH) were completed, yet they were not implemented due to MTPTC inaction.

H. FUTURE OPERATIONS

65. MTPTC, the main implementing agency has taken appropriate steps to ensure effective project operation. The Operational Plan, attached to the closing aide memoire, shows that resources have been allocated in order to keep in good condition the civil works accomplished under the project. In the national budget, the MTPTC has assigned enough funds to meet the annual maintenance operations (emergency, routine and periodic) for the road and bridge components. In addition, a set of monitoring performance indicators would be in place under the ongoing project (Credit 2691-HA), and will provide data and information on the status and quality of MTPTC's maintenance operations, providing benchmarks against maintenance operations and capability can be measured. Also with Credit 2691-HA support, the Government should be able to: adopt the development of sustainable user charges mechanisms for funding road maintenance; receive training for its technical, administrative and managerial personnel; and carry out its planned reorganization. Its success will depend decisively upon a very strong determination from the Government to enforce them, together with a close and tight supervision from the Bank.

I. KEY LESSONS LEARNED

66. The following sector-related and project specific lessons could be derived from this project's implementation.

Sector Lessons

(a) In the case of countries like Haiti, with overwhelming social and macroeconomic problems, an overall Development plan should be established wherein the Transport sector would be an instrumental component to facilitate the Government's objectives.

b) In view of the socioeconomic conditions and the scarce financial resources of Haiti, the transport infrastructure should assure the physical integrity of the country's network, through a careful planning process in order to optimize the funds assignment.

c) Labor-intensive methods utilized by small and medium contractors constitute a suitable tool to mitigate unemployment while achieving acceptable rehabilitation and maintenance work.

Project Lessons

(a) The implementing agency should be familiar with Bank procurement procedures. In case of institutional weaknesses, early specific technical assistance should be included in the project to avoid delays. Prior to awarding works contracts, contractor's qualifications should be carefully reviewed.

(b) Adequate coordination among different implementing agencies should be assured to avoid conflicts, such as those in the project between PAN/SEMANAH and DDT/SCCV concerning land allocation and axle control respectively.

(c) Accounting systems of the various implementing agencies should be compatible and designed with proper technical procedures to facilitate an appropriate follow up and subsequent audits.

(d) The Project Coordination Unit (PCU) should be given the financial means and personnel continuity to perform efficiently its task.

(e) The amount of counterpart funds should be correctly assessed at the time of the appraisal, and if necessary lowered to be within the Borrower's real possibilities.

(f) It is convenient to implement labor-intensive sub-projects in areas where the unemployment originates, preventing migration from rural to urban areas.

PART II. STATISTICAL ANNEXES

TABLE 1: SUMMARY OF ASSESSMENTS

A. Achievement of Objectives	**Substantial**	**Partial**	**Negligible**	**Not Applicable**
Macroeconomic policies			x	
Sector policies		x		
Financial objectives			x	
Institutional development			x	
Physical objectives		x		
Poverty reduction			x	
Gender concerns				x
Other social objectives				x
Environmental objectives			x	
Public sector management			x	
Private sector development			x	

C. Bank Performance	**Highly Satisfactory**	**Satisfactory**	**Highly UnSatisfactory**	**Unsatisfactory**
Identification				x
Preparation assistance				x
Appraisal				x
Supervision		x		

D. Borrower performance	**Highly satisfactory**	**Marginally Satisfactory**	**Deficient**
Preparation		x	
Implementation			x
Covenant compliance			x
Operation (if applicable)	NA	NA	NA

Assessment of outcome	**Highly Satisfactory**	**Satisfactory**	**Unsatisfactory**	**Highly Unsatisfactory**
			x	

TABLE 2: RELATED BANK LOANS/CREDITS

Loan/credit title	Purpose	Year of approval	Status
Preceding operations			
1. Fifth Highway Project Credit 807-HA	Upgrading and paving of 54 km of the Northern Plain Area, replacing two bridges and improving three pilot coastal shipping ports. US$ 15.0 million.	1978	Completed
2. Port Project Credit 1121-HA	Civil works in Cap Haitien. Seven other coastal ports were rehabilitated or constructed. US$ 11.0 million co-financed by KFW.	1981	Completed
3. Sixth Highway Project Credit 1220-HA	Rehabilitation of 57 bridges and other drainage structures. Rehabilitation and strengthening 100 km of the Northern Road. Acquisition of equipment to expand SEPRRN. Program on weight and dimension control for vehicles.	1982	Completed
Contemporary operations			
1. Urban Development Project Credit 1338/SF1-HA	Pilot Road Maintenance Program using local contractors and village communities.	1983	Completed
Following operations			
1. Road Maintenance and Rehabilitation Project Credit 2691-HA	Bridge and Road rehabilitation works. Periodic and routine maintenance works to be carried out by local firms, local communities and MTPTC's force account. Institutional strengthening, including the restructuring of the MTPTC.	1995	Ongoing

TABLE 3: PROJECT TIMETABLE

Steps in project cycle	Date planned	Date actual/ latest estimate
Identification		December 1984
Preparation		March 1985
Appraisal		July 1985
Negotiations		December 1986
Letter of development policy (if applicable)		NA
Board presentation		February 3, 1987
Signing		February 12, 1987
Effectiveness		March 25, 1987
First tranche release (if applicable)		
Midterm review (if applicable)		
Project completion	December 31, 1990	June 30, 1996
Credit closing		October 31, 1996

TABLE 4: LOAN DISBURSEMENT: CUMULATIVE ESTIMATED AND ACTUAL

(in US$ million)

FY	87	88	89	90	91	92	93	94	95	96
Appraisal Estimate	2.4	6.1	6.1	3.3	2.1					
Actual	3.09	6.45	13.14	16.08	18.78	18.81	18.65	18.65	18.51	22.35
Actual as % of Estimate	129	76	90	90	94	94	93	93	93	112

Note: the higher actual vs. appraisal disbursement is due to the favorable SDR exchange rate.

TABLE 5: KEY INDICATORS FOR PROJECT IMPLEMENTATION

No key indicators were developed for project implementation at the time of Credit preparation.

TABLE 6: KEY INDICATORS FOR PROJECT OPERATION

No key indicators were developed for project operation at the time of Credit preparation.

TABLE 7: STUDIES INCLUDED IN PROJECT

Study	Purpose as defined at appraisal/redefined	Status	Impact of study
1. DDT's Institutional and technical strengthening.	DDT's organizational structure, including job description and reclassification of its professional positions, would be reviewed in light of its expanding responsibilities and to improve authority and distribution work delegation. The technical part of the study, addressed to DDT's branch on planning matters (SEP) was also included, comprising several techniques on road planning, and feasibility studies.	Completed	Study not implemented in either fields, institutional and technical.
2. Training on road maintenance based in labor intensive methods.	Improvement of labor intensive methods by training SEPRRN's staff.	Completed.	Significant. A substantial part of road maintenance in secondary and departamental roads were carried out by SEPRRN based on labor intensive methods, until, due to low budgeting allocation, most works were stopped.
3. Road maintenance policy addressed to SEPRRN.	Development of Road Maintenance policy and planning.	Mostly completed.	This study complements the previous one.
4. SEMANAH's institutional strengthening.	Develop a stronger institution by means of recruiting both technical operations and training officers, and technical assistance for operations and regulatory issues.	Completed.	Some impact to strengthen SEMANAH by following the study's advices, so the overall performance improved to some extent. The Maritime

Study	Purpose as defined at appraisal/redefined	Status	Impact of study
			Code and other inspection procedures are not approved yet.
5. Training Center and Facilities.	Construction and furnishing of a training center for helmsmen and seamen and the procurement of a list of training facilities.	Design was done, but not built.	None.
6. Slip-way and Yard for Boat Inspection.	Construction of a slip-way and a yard for Boat inspection.	Design was done, but not built.	None.
7. Road Taxation.	Review the structure and sources of funding expenditures on roads and recommend strategies to define, revise and implement funding sources to obtain and collect revenues enough to fully finance road expenditures.	Completed.	To be implemented under the ongoing Project (Credit 2691-HA).

TABLE 8A: PROJECT COSTS

Category	Appraisal estimate (US$M)			Actual/latest estimate (US$M)		
	Local	Foreign	Total	Local	Foreign	Total
1. Civil works for Parts A and B	4.32	12.82	17.14	2.14	15.71	17.85
2. Goods for Part A	0.07	1.37	1.44	0.00	0.97	0.97
3-A.Technical Assistance for Parts A and B.	0.43	2.52	2.95	1.29	4.39	5.68
3-B. Technical Assistance for Part C	0.02	0.22	0.24	0.00	0.41	0.41
Total Base Cost	4.84	16.93	21.77	3.43	21.48	25.33
Contingencies	0.48	1.75	2.23	0.00	0.00	0.00
TOTAL COST	5.32	18.18	24.00	3.43	21.48	25.33

Based on Pari-passu estimated in SAR and following amendment.

TABLE 8B: PROJECT FINANCING

Source	Appraisal estimate (US$M)			Actual/latest estimate (US$M)		
	Local Costs	Foreign Costs	Total	Local Costs	Foreign Costs	Total
IDA	1.33	18.67	20.00		21.48	21.48
Government of Haiti	4.00		4.00	3.43		3.43
Total	5.33	18.67	24.00	3.43	21.48	25.33

TABLE 9: ECONOMIC COST AND BENEFITS

Cost Overruns, Rate of Return

Project Component	Cost (US$'000)			Economic Rate of Return (ERR %)		
	Planned	Actual	Actual as % of Planned	Planned	Actual	Actual as % of Planned
A. Drainage Structures						
1. Jérémie - Moron	450.9	423.8	94	45.2	48.1	106
2. Dame Marie - Anse d'Hainault	378.7	395.4	104	81.3	77.9	96
3. Cavaillon - Barraderes	274.4	362.7	132	87.3	66.0	76
4. Jacmel - Cayes	389.8	515.2	132	24.1	18.2	75
5. Carref. Thomazeau - Mirebalais	1,251.6	1,036.6	83	24.0	19.0	79
6. St. Raphael - Pignon	1,338.2	1,255.5	94	16.2	17.3	107
7. Carref. Liberté - Pont Massacre	906.4	721.9	80	16.8	17.1	102
8. Carref. Menard - St. Raphael	977.7	1,356.3	139	33.8	24.4	72
9. Limbé - Port Margot	559.9	503.7	90	20.4	22.7	111
10. Port Margot - Borgne	116.5	109.4	94	36.2	37.5	104
11. Port de Paix - St. Lous du Nord	1,638.1	1,283.0	78	33.9	38.3	113
B. Bridge Construction						
1. Fer-a-Cheval bridge	1,850.0	2,167.3		120.2	87.3	73
2. Guayamouc bridge	1,750.0	2,622.2		18.3	13.8	75
C. Road Rehabilitation						
1. Gonaives - Cap Haitien	4,956.7	6,403.9	129	28	19	68
EER Project				38.5	30.4	79

TABLE 10: STATUS OF LEGAL COVENANTS

greement	Section	Covenant Class	Status	Original Fulfill Date	Revised Fulfill Date	Description of Covenant	Comments
	2.02 (b)	1	C	08/12/94		The Borrower shall open and maintain in dollars a Special Account in a commercial bank.	In full compliance.
	2.03	10	C			The Closing Date shall be June 30, 1991 or such later date as IDA shall establish.	The Closing date was extended twice: first to June 30, 1992; and then, when the credit was restarted by mid 1995, The Closing Date was extended to June 30, 1996.
	3.01 (a) (i)	10	CP			The Borrower shall carry out Parts A and B of the Project through DDT and SEMANAH, respectively.	Complied partially.
	3.01 (a) (ii)	10	CP			The Borrower shall cause APN to carry out Part C.	Only the preliminary studies and the alternative solutions were carried out. The detailed engineering design was not achieved.
	3.01 (a) (iii)	10	CP			The Borrower shall provide all the facilities required for the Project.	Complied.
	3.01 (b)	10	C			The Borrower shall relend to APN US$ 280,000 for Part C.	In full compliance.
	3.01 (d)	10	CD			The Borrower shall follow the Implementation Program.	Complied
	3.03 (a)	3	C			The Borrower shall establish and thereafter maintain a Project Account in the Banque de la Republique d'Haiti.	In full compliance.
	3.03 (b)	3	C			The Borrower shall deposit in the Project Account an amount in Gourdes equivalent to US$ 400,000	In full compliance.
	3.03 (c)	3	NC			The Borrower shall replenish the Project Account so that the available amount do not fall bellow of counterpart funds required to meet two months of estimated expenditure.	Not complied due to lack of counterpart funds.
	3.04 (a)	5	C			The Borrower shall establish and maintain a Project Coordination Unit (PCU) composed by the Directors of DDT, SEMANAH, APN and a senior representative of the MEF.	In full compliance.
	3.04 (b)	5	C			The Borrower shall appoint a full-time Project Implementation Officer (PIO).	In full compliance.
	3.04 (c)	5	CP			The Borrower shall provide resources for the PCU.	Complied partially.
	3.05 (a) (i)	3	NC			The Borrower shall properly maintain the road network.	Not complied. Lack of funds and low budgeting
	3.05 (a) (ii	3	PC			The Borrower shall properly maintain the road maintenance equipment.	Partially complied.
	3.05 (b)	3	NC			The Borrower shall make available to DDT the yearly amount required for purposes of section 3.05 (a), which unless otherwise agreed by IDA, shall not be lower than: (i) US$ 8.000.000 equivalent for FY 1988; (ii) US$ 9.700.000 equivalent for FY 1989; (iii) US$ 10.600.000 equivalent for FY 1990; and (iv) US$ 11.800.000 equivalent for FY 1991.	Partially complied in light of emergency context.
	3.05 (c)	5	CP			Not later than June 30, 1987 and every June 30 thereafter, the Borrower shall furnish to IDA for its comments, the program to be carried out under Part A.5 of the Project, including the technical assistance required for such program, and the selection of sites where the works will be carried out. Promptly thereafter carry out such program taking into account the comments made by IDA.	When the Project restarted in 1995, this requirement was fulfilled by the Borrower.
	3.06 (a)	9	C			The Borrower shall, commencing in 1987 and not	Complied.

greement	Section	Covenant Class	Status	Original Fulfill Date	Revised Fulfill Date	Description of Covenant	Comments
						later than June 30 each year, inform IDA of any proposal of the Borrower to modify the 1987-1991 Investment Program.	
	3.06 (c)	3	C			Not incur any capital expenditure (other than those included in the 1987-1991 Investment Program), unless the Borrower shall have determined to the satisfaction of IDA that the proposed expenditures are economically justified and has secured adequate financing for such expenditure including the recurrent costs associated with it.	No investment in light of emergency context.
	3.07 (a) (i)	3	NC			The Borrower shall ensure that the weight of vehicles using the Borrower's public roads network shall nor exceed 18 tons per single axle or a total weight of 40 tons per vehicle.	Compliance has not been achieved due to political problems and lack of police support.
	3.07 (a) (ii)	3	NC			Not later than March 31, 1987, the Borrower shall provide DDT with an amount equivalent to US$ 240.000, and appoint on a full-time basis, a qualified chief for DDT's weight control services.	Partially complied with. That amount was not provided to DDT. Even though the person in charge of the weight control was appointed, the task could not succeed given the denial of police support.
	3.07 (b)	9	NC			The Borrower shall not later than June 30, each year during Project Implementation, review with IDA the actions taken or to be taken for the enforcement of such axle load restrictions.	Not complied because of lack of funding in light of emergency context.
	3.08	3	NC			The Borrower shall provide the amounts required by SEMANAH for the carrying out of Part B of the Project and which, unless otherwise agreed by IDA, shall not be lower than: (a) US$ 800,000 equivalent for FY 1988; (b) US$ 900,000 equivalent for FY 1989; (c) US$ 1,000,000 equivalent for FY 1990; and (d) US$ 1,200,000 equivalent for FY 1991.	Partially complied with. After the embargo, the project was reactivated by mid 1995 to carry out only labor-intensive work.
	4.01 (a)	1	CP			The Borrower shall maintain or cause to be maintained separate records and accounts adequate to reflect in accordance with sound accounting practices and operations, resources and expenditures, in respect of Parts A and B of the Project; and cause APN to do the same in respect of Part C of the Project.	Some problems arose due to incompatibilities between different accounting systems, and some omissions and mistakes were identified by the auditor.
	4.01 (b)	1	C			The Borrower shall have the accounts referred to in para. (a) of this section, for each fiscal year audited, all in accordance with appropriate auditing principles consistently applied, by independent auditors acceptable to IDA and furnish IDA not later than four months after the end of each such year, a certified copy of the reports of each audits.	In full compliance.
	4.02	10	NC			The Borrower shall cause APN to, not later than October 1, 1987, put into effect the tariffs and charges for the use of international ports contained in an APN's report.	Complied with. After the restoration of the Government led by Mr. Aristide, the new tariffs were put into effect in April, 1995..
	4.03	9	NC			The Borrower shall (a): not later than July 1, 1987, furnish to IDA for its comments the schedule of tariffs and charges to be applied by APN for the use of cabotage ports; and (b): put into effect, not later than October 1, 1987, such schedule of tariffs and charges.	The proposed study on cabotage port tariffs was never done. Subsequently, they were not put into effect in light of emergency context.

1. Covenant Type:

1 = Accounts/Audits
2 = Financial performance/revenue

8 = Indigenous people
9 = Monitoring review and

generation from beneficiaries	reporting
3 = Flow and utilization of project funds	10 = Project implementation not covered by categories 1-9
4 = Counterpart funding	11 = Sector or cross-sector budgetary or other resources
5 = Management aspects of the project or executive agency	12 = Sector or cross-sector policy/regulatory/institutional action
6 = Environmental covenants	
7 = Involuntary resettlement	13 = Other

2. Present Status :

C	- Complied with	CP	- Complied with Partially
CD	- Compliance after Delay	NYC	- Not Yet Due
NC	- Not Complied with		

LE 11: BANK RESOURCES: STAFF INPUTS

	Planned		Actual	
	Weeks	US$('000)	Weeks	US$('000)
Through appraisal	NA	NA	21.2	39.7
Appraisal-Board	NA	NA	48.4	139.1
Board-Effectiveness	NA	NA	18.9	34.5
Supervision	NA	NA	51.9	104.0
Completion	NA	NA	0.75	1.5
Total	NA	NA	141.15	318.8

NA: not available; Appraisal through Board includes time/dollars spent on re-appraising the project in FY 1994.

TABLE 12: BANK RESOURCES MISSIONS

Stage of project cycle	Month/ year	Number of persons	Days in field	Specialized staff skills represented	Performance Rating: Implementation status	Performance Rating: Development Objectives	Types of problems
Through appraisal	10/84	2	7	ECN, PO			
Appraisal through board approval	7/85	7	10	LO, PO, ECN(2), FA, ENG(2)			
Board approval through effectiveness	4/86; 6/86	2 1	10 8	ECN, FA, LO			
Supervision	5/87 9/87 4/88 11/88 5/89 4/91 7/91 9/95 3/96	3 2 1 1 1 3 1 2 1 2	9 10 13 12 12 13 5 4 4 4	ECN, HENG ECN, HENG HENG HENG HENG FA, HENG, ECN ECN HENG, UTENG UTENG UTENG, MENG	1 2 2 2 2 2 2 S S S	1 1 1 1 1 2 2 S S S	- FA FA FA FA FA, PM, CC FA, PM, CC FA, PM, CC FA, CC FA, CC
Completion	9/96	2	13	UTENG, C			
Total		31	134				

E = Economist
ENG = Engineer
LO = Loan Officer
FA = Financial Analyst
HENG = Highway Engineer
MENG = Municipal Engineer
UTENG = Urban Transport Engineer
C = Consultant

FA = Funds Availability
PM = Project Management
CC = Covenant Compliance

APPENDIX A

Closing Aide Memoire

(incorporates Borrower's Contribution for ICR)

REPUBLIQUE D'HAITI
Ministère des Travaux Publics, Transports et Communications

VIIe PROJET DE TRANSPORT
(Crédit 1756 - HA)
Mission de finalisation du Projet du 7 au 17 septembre 1996

1. INTRODUCTION

1. Une mission de l'Association Internationale de Développement (IDA), composée de Messieurs Pierre E. Sooh, Fernando Montenegro et José M. Bacigalupo, a visité Haïti du 7 au 17 septembre 1996 afin d'évaluer les résultats du Projet, d'activer et d'assister le MTPTC dans la mise au point du rapport de finalisation du projet cité en titre.

2. Les objectifs de la mission étaient les suivants :
   a) rassembler toutes les données et informations nécessaires à l'élaboration du Rapport de Finalisation du Projet (RFP) ;
   b) discuter avec l'emprunteur et tous les organismes d'exécution du projet des objectifs, résultats et impacts dudit projet ;
   c) conseiller et assurer un soutien à l'emprunteur dans sa contribution au RFP ; et
   d) réviser le plan d'exécution du Gouvernement pour les investissements effectués dans le cadre du projet (l'annexe 1 récapitule le plan d'entretien et d'opération des travaux exécutés dans le cadre du projet).

3. La mission est reconnaissante pour l'assistance et la coopération fournies par le Ministère des Travaux Publics, Transports et Communications (MTPTC) et son Staff, l'Autorité Portuaire Nationale (APN) et le Service Maritime et de Navigation d'Haïti (SEMANAH). La liste des personnes rencontrées durant la mission est donnée dans l'annexe 2.

2. BILAN GENERAL ET RESUME

4. La mission a analysé les objectifs du projet et a tiré les enseignements suivants :

a)les objectifs physiques ont été remplis dans le domaine routier alors que le domaine maritime n'a pas été couvert ;
b)l'Assistance Technique a été présente durant la période et la partie des études ayant trait au renforcement institutionnel a été effectuée. Mais, il y a lieu de constater que toutes les recommandations techniques et managériales de ces études n'ont pas été appliquées et le renforcement institutionnel espéré n'a pas eu lieu ;
c)les avantages du Projet ont été moindres et les ratios de coût élevés dus aux facteurs suivants :

- délais non tenus ;
- dérapages de coûts ;
- avantages sur les coûts d'exploitation moindres que prévus consécutivement à une baisse générale de l'activité économique en relation avec l'embargo.

Plus de détails seront donnés dans les chapitres suivants ainsi que dans le RFP qui est actuellement en cours d'élaboration.

3. STATUT DU PROJET

3.1 Routes et ponts

3.1.1 Composante physique

5. Remise en état de 38 ouvrages d'art. Ce programme a été effectué sur les routes nationales, départementales et secondaires (1987-1990). Sur les huit lots du contrat, six (6) ont été réalisés par le consortium SINTRA-MARKA et deux (2) initiés par la firme haïtienne TECINA S.A et achevés par le consortium SINTRA-MARKA.

6. Construction de 2 grands ponts. Ces deux ouvrages d'art ont été réalisés dans le Département du Centre (1990). Ils sont situés respectivement à Hinche (pont Guayamouc) et à Mirebalais (pont sur le Fer-à-cheval). Le contrôle et la supervision des différents chantiers étaient assurés par le Service de Construction des Routes (SCR) assisté de la firme DIWI International. La firme haïtienne ARTEC Engineering a participé également au contrôle et à la supervision.

7. Remise en état de 96 Km de routes. La Route Nationale N° 1 a été réhabilitée entre Gonaïves et Cap Haïtien. Les travaux qui avaient débuté en 1983 ont été arrêtés en avril 1987 et l'entreprise adjudicataire (Vorbes et Howard) a vu son contrat résilié après avoir réalisé 20 Km. Après de nombreux arrêts de chantier, les travaux ont redémarré avec l'entreprise Fougerolles. Ces travaux ont été interrompus suite à une carence du maître de l'ouvrage. A la suite de négociations avec l'état haïtien les travaux ont pu reprendre suite à la signature d'un avenant au contrat. Des travaux complémentaires s'étant avéré nécessaire, un cofinancement a été obtenu auprès de Caisse Centrale de Coopération Economique de France (CCEF). La recherche de financement additionnel a été occasionnée par la détérioration accrue de la route pendant cette longue période (7ans). Le MTPTC a réceptionné les travaux complets en décembre 1990.

8. SEPPRN. Les travaux à Haute Intensité de Main-d'œuvre ont tout d'abord été initiés par le Service d'entretien Permanent du Réseau Routier National (SEPPRN) et les conseils communautaires (CAMP : Community Action Maintenance Plan). Cela a été effectué avec la collaboration de 56 communautés villageoises. Durant cette première phase, environ 666 Km ont pu être réalisés avec l'appui financier de l'IDA qui a contribué à l'achat des équipements et de l'outillage nécessaires. A l'issue de cette première étape, ce type de travaux a pu continuer de façon satisfaisante à travers l'unité UC-HIMO.

9. Les coûts de cette composante sont les suivants :

Remise en état des 38 ouvrages d'art :	7 652 214	USD
Construction de 2 ponts :	4 692 368	USD
Remise en état de 96 Km de routes :	19 871 457	FRF
	5 681 190	USD
Equipement SEPPRN	777 383	USD
Etudes et supervision Routes/Ponts	2 101 754	USD

10. Les enseignements tirés du projet sont principalement les suivants :.

a) les modalités de préqualification ou de postqualification devraient prendre en compte la taille des projets afin d'éviter l'engagement de sociétés n'ayant pas la capacité financière ou technique;
b) le Gouvernement doit pouvoir assurer et renforcer le financement de sa contrepartie. Simultanément, la Banque devrait pouvoir mieux analyser pendant l'évaluation les risques émanant de la contrepartie locale. Un autre montant aurait pu être recommandé ;
c) un manque de délégation au sein du MTPTC a alourdi les procédures ; et
d) la Banque doit renforcer sa diligence vis à vis des requêtes de non-objection.

3.1.2 Renforcement institutionnel

11. Le programme d'Assistance Technique a réalisé les éléments suivants :

a) appui institutionnel à la DDT par le BCEOM ;
b) programmation des Transports par l'appui d'un économiste des Transports du BCEOM au sein du SPE;
c) planification de l'entretien et de l'amélioration du réseau routier ainsi que la formation sur les travaux HIMO par Louis Berger ; et
d) politique d'entretien au sein du SEPPRN par L. Austin.

Les études ont été effectuées et la Banque a jugé la qualité acceptable. La mise en œuvre des études et du renforcement institutionnel n'a pas été complétement réalisée.

3.1.3 Travaux à Haute Intensité de Main-d'œuvre

12. Les Travaux à Haute Intensité de Main-d'œuvre ont été développés à partir d'un projet pilote visant à promouvoir ce type de travaux. Comme nous l'avons souligné au paragraphe N° 8, 666 Km ont été réalisés dans la première phase par le SEPPRN.

13. HIMO/Phase I. A partir de mai 1991, dans le cadre des programmes de transport et de développement urbain, la Banque a décidé

d'affecter les ressources restantes des crédits 1338-HA, SFI-HA et 1756-HA à ce nouveau programme de travaux à haute intensité de main-d'œuvre. Cela devait permettre de payer :

a) les matériaux ;
b) l'équipement et l'outillage ;
c) le carburant ; et
d) les heures supplémentaires du personnel.

Ce programme a été une expérience réussie dont le développement est recommandé pour expansion dans le cadre du crédit 2691-HA. Alors que l'objectif premier de ce programme était la création d'emplois, un second objectif était la mise au point d'outils performants à utiliser pour les programmes triennaux urbains et interurbains. L'expérience réalisée à ce jour en Haïti indique que cette façon de travailler appliquée à la réhabilitation permet d'obtenir des résultats durables.

14. Les projets suivants ont été réalisés :

a) projet à caractère HIMO
- pavage de voies en adoquins ;
- traitement des ravines et conservation de sol au Morne - Hôpital;
- réhabilitation d'équipement de voirie à Port-au-Prince
- curage du réseau de drainage de Port au Prince
- travaux de voirie à Dame Marie
- pavage de la route Milot-Choiseul-lots 1 et 2

b) autres projets
- aménagement du bassin versant de la petite rivière de Nippes.
- protection route nationale 2_ PK 143
- bétonnage de chaussée de la route Gonaïves- Jean Rabel
- pose de buses sur la route Gonaïves - Jean Rabel

15. HIMO/Phase II : Cinq (5) projets ont été achevés sous le crédit 1756-HA. Aussi, le MTPTC a commencé à exécuter quatre (4) nouveaux projets qui seront achevés dans le cadre du Crédit - 2691 - HA. Le projet a aussi financé l'achat de matériaux pour exécuter deux (2) projets additionnels qui seront réalisés dans le cadre du Crédit - 2691 - HA.

L'annexe 3 récapitule l'ensemble des projets exécutés ainsi que l'emploi généré dans le cadre de la phase II/HIMO.

16. Les enseignements tirés du projets sont principalement les suivants :.

a) l'Unité UC-HIMO initialise les travaux alors que la Direction Départementale ou le service concerné assure la supervision. Selon les besoins locaux, on doit pouvoir considérer la possibilité de recruter un coordonnateur local afin de renforcer les capacités locales de coordination ;
b) la nécessité d'un renforcement de la coordination entre la cellule UC-HIMO et les entités assurant la supervision;
c) le fond de roulement doit s'adapter aux types de travaux HIMO ; et
d) un renforcement des travaux de type HIMO en zone rural permettrait d'atténuer les migrations vers la capitale que les travaux effectués en zone urbaine accroissent.

3.2 Services maritimes

3.2.1 Cale de halage et chantier

17. Les études ont été réalisées. Les travaux de génie civil n'ont pu être réalisés et les financements ont été affectés au secteur routier.

3.2.2 Centre de formation

18. Les études ont été réalisées. Les travaux de génie civil n'ont pu être réalisés et les financements ont été affectés au secteur routier.

3.2.3 Assistance technique

19. SEMANAH. Les officiers et techniciens ont été formés. L'expert en formation et l'expert en cabotage ont été fournis mais l'étude sur les tarifs du cabotage n'a pas été réalisée. La Mission constate quelques améliorations dans la gestion du SEMANAH.

Un conflit foncier opposant le SEMANAH et l'APN a compromis la matérialisation des projets concernant le centre de formation et le chantier naval.

Les coûts de 3.2.1, 3.2.2. et 3.2.3. se sont élevés à 991 805 USD.

3.3 Gestion des ports

22. Port de Jérémie. L'identification et l'étude de faisabilité ont été réalisées mais les études d'exécution n'ont pu se concrétiser.

Les coûts des études se sont élevés à 303 304 USD.

4. DECAISSEMENTS

A la date d'aujourd'hui, 16 545 722 DTS ont été décaissés. 54 278 DTS n'ont pas été encore décaissés. La part globale des décaissements s'élève donc à 99,67 % du total du prêt.

Dans ces montants est inclue la somme de 132 187 DTS du compte spécial qui doit toujours être justifiée.

Le Gouvernement devrait justifier ces dépenses et préparer une requête pour la partie du prêt non décaissé avant le 31 octobre 1996.

Port au Prince, le 17 septembre 1996

Ingénieur Jacques GABRIEL
Directeur Général, MTPTC

Ingénieur Fernando MONTENEGRO
IDA

ANNEXE 1

PLAN D'OPERATION ET D'ENTRETIEN

Le Ministère des Travaux Publics, Transports et Communications prendra les mesures nécessaires pour appliquer ce Plan d'opération dans le but de s'assurer que les travaux civils, construits ou réhabilités dans le VIIe Projet de Transport sous le Prêt 1756-HA, seront adéquatement entretenus. Dans ce but la mise à disposition de fonds pour les agences d'exécution sera prise en considération dans le Budget Annuel pour la(les) prochaine(s) année(s)fiscale(s).

Les détails pour ces besoins d 'entretien pour chaque composante, entretien courant et périodique, sont montrés ci-dessous.

a) Réhabilitation des ponts mineurs et des structures de drainage

Le coût de l'entretien courant, par conséquent estimé avec les pratiques usuellement utilisés, est d'environ 38 000 USD/an. A cette somme sera ajouté l'entretien périodique, estimé à un équivalent annuel de 38 000 USD/année, totalisant des flux financiers annuels de 76 000 USD.

b) Construction de pont

De façon identique au chapitre précédent, les besoins financiers pouvant satisfaire l'entretien courant et périodique sont :

1) Pont du Fer à Cheval

Entretien Courant : 4 000 USD/an
Entretien Périodique : 4 000 USD/an

2) Pont de Guayamouc

Entretien Courant : 4 000 USD/an
Entretien Périodique : 4 000 USD/an

c) Réhabilitation de la Route Nord entre Gonaïves et Cap-Haïtien

La réhabilitation de cette route a débuté sous le Vie projet routier et a été achevée sous le VIIe Projet de Transport. Une période de sept (7) années s'est écoulée entraînant la mise en place d'un nouveau programme de réhabilitation qui commencera en mai de l'année prochaine, sous le crédit 2691-HA.

Pour la raison exprimée précédemment, seulement des travaux d'entretien à caractère d'urgence ont pu être réalisés par le MTPTC avant les travaux de réhabilitation. Un financement d'environ 250 USD/Km seront fournis pour ces travaux (total de 24 000 USD pour les 96 Km réhabilités).

Lorsque les travaux de réhabilitation seront achevés, l'entretien courant sera pris en charge par l'unité UC-HIMO pour les deux (2) prochaines années avant d'être relayé par l'entité chargée de l'entretien au sein du MTPTC.

Les charges financières nécessaires à l'entretien courant sont d'environ 1 000 USD/an/Km, alors que l'entretien périodique nécessite pour chaque période quinquennale la somme de 5000 USD/Km. Les financement en équivalant annuel sont de l'ordre de 2 000 USD/Km pour une prise en compte raisonnable des deux types d'entretien. Dès lors que 96 Km de routes ont été réhabilités, l'allocation globale nécessaire pour un entretien adéquat s'élève à 192 000 USD/An.

d) Travaux réalisés par l'unité HIMO

Les tâches d'entretien nécessaires pour les travaux exécutés dans le programme HIMO seront sous la responsabilité des agences spécifiques auxquelles elles appartiennent. Dans le tableau 1, les projets exécutés, leurs agences spécifiques et les coûts d'entretien courant et périodique (équivalence annuelle) nécessaires à un maintien durable de l'investissement sont indiqués.

e) Sources de financement

Une programmation budgétaire adéquate afin de garantir la durabilité des action d'entretien courant et périodique est prévue dans le budget national , selon le type de travaux de génie civil à accomplir et les opérations d'entretien nécessaires.

Le tableau suivant montre les travaux de génie civil réalisés sous le VIIe Projet de Transport, les entrées budgétaires et les financements correspondants afin de permettre le financement du plan d'opération proposé.

Tableau No. 1

Prevision pour Entretien Courant et Periodique - HIMO Phases I et II

N°	Projet	Service	Entretien Courant	Entretien Periodique	Total
	HIMO-Phase I				
1	B-2 Travaux de voirie et Grand'Rue de Dame-Marie	AEADMA	1000	1000	2000
2	B-421 Rehabilitation de la route Milot-Choiseuil - Lot 1	ISPAN	800	800	1600
3	B-421 Rehabilitation de la route Milot-Choiseuil - Lot 2	ISPAN	2000	2000	2000
4	C-633.1 Betonnage de chaussee Gonaives-Jean Rabel	SEPRRN	869	869	1738
	HIMO-Phase II				
5	Rehabilitation Thomassique-Cerca DDC	SEPRRN	17000	17000	34000
6	Rue Fosses Leogane	SEPRRN	913	913	1826
7	Rehabilitation St. Joseph, Rempart et Magasine d'Etat	SEPRRN	1620	1620	3240

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Travaux	**Montant nécessaire Budget 1996 USD**	**Entrée budgétaire**	**Montant de l'entrée budgétaire USD (1995-1996)**	**% de l'entrée budgétaire**
a) Travaux de drainage				
Courants	38 000	282,341,371, 372,373	867 800	4.4
Périodiques	38 000	282,341,371, 372,373	867 800	4.4
b) Ponts				
Courants	8 000	282,341,371, 372,373	867 800	0.9
Périodiques	8 000	282,341,371, 372,373	867 800	0.9
c) Route Gonaïves - Cap Haïtien				
Urgence	24 000	282,341,371, 372,373	867 800	2.8
d) Travaux de réhabilitation HIMO				
Courants	24 200	282,341,371, 372,373	867 800	2.8
Périodiques	24 200	282,341,371, 372,373	867 800	2.8

ANNEXE 2

LISTE DES PERSONNES RENCONTREES

Ingénieur Jacques GABRIEL	Directeur Général	M.T.P.T.C.
Ingénieur Gary JEAN	Directeur des Transports	M.T.P.T.C.
Ingénieur Raymond DELINOIS	D.D.T	M.T.P.T.C.
Ingénieur Evelt EVEILLARD	Responsable UC- HIMO	M.T.P.T.C.
Monsieur Antoine LAURENT	Consultant Financier/ HIMO	M.T.P.T.C.
Ingénieur Wilson EDOUARD	Responsable technique UC-RERN	M.T.P.T.C.
Ingénieur Georges DUVALSAINT	Chef du S.P.E./D.D.T.	M.T.P.T.C.
Ingénieur Charles RAYMOND PIERRE	Chef de service	S.C.R.
Ingénieur Frantz ISIDORE	Responsable section routes primaires	S.C.R.
Ingénieur Frantz DUROSEAU	Assistant Chef de service	S.E.P.P.R.N.
Ingénieur Venel PIERRE	Directeur Général	S.E.M.A.N.A.H.
Ingénieur José BARTHELEMY	Directeur Technique	A.P.N.
Ingénieur Duquepsonne EXTRA	Directeur Général	A.P.N.

ANNEXE 3

A - PROJETS EXECUTES TOTALEMENT SUR LE CREDIT 1756-HA

No	TITRE	DUREE	COUT REEL (GDES)	COUT PREVU (GDES)	NBRE D'EMPLOIS CREES
	Curage des Ouvrages de Drainage le Long des Routes au Département de l'Ouest	4 mois (80 jours)	6,067,618.00	6,269,320.00	78977 H.j
	Curage des Ouvrages de Drainage de Port-au-Prince	5 mois (100 jours)	9,998,190.00	10,733,473.00	11271 H.j
	Contrôle de l'Erosion au Morne l'Hopital	4 mois	2,678,135.00	2,700,000.00	62025 H.j
	Travaux d'Entretien sur l'Axe Léogane - Petit-Goave	2 mois	2,292,528.00	2,408,256.00	28380 H.j
	Curage de Port-au-Prince Phase II	2 mois	5,635,835.00	5,976,275.00	60855 H.j
	TOTAL		**26,672,306.00**	**28,087,324.00**	**241508 H.j**

OBSERVATIONS :

B - PROJETS EXECUTES PARTIELLEMENT SUR LE CREDIT 1756-HA

No	TITRE	DUREE	COUT REEL (GDES)	COUT PREVU (GDES)	NBRE D'EMPLOIS CREES
	Réhabilitation Thomassique - Cerca La Source		1,659,669.00	2,410,371.00	18695 H.j
	Réhabilitation des Rues St-Joseph, Magasin de l'Etat et Remparts (Croix-des-Bossales - La Saline)		9,764,859.00	8,595,290.50	9941 H.j
	Réhabilitation de la Rue des Fossés (Nord) à Léogane		1,684,897.00	3,286,832.00	
	Aménagement de Talus et de Berge à la Rue Celcis au Canapé-Vert		1,218,505.00	3,169,491.40	
	TOTAL		**14,327,930.00**	**17,461,984.90**	

OBSERVATIONS : Ces travaux se poursuivent. Les dépenses à partir du 1er juillet 1996 sont effectuées à partir du Crédit 2691-HA.

P.E. Sooh
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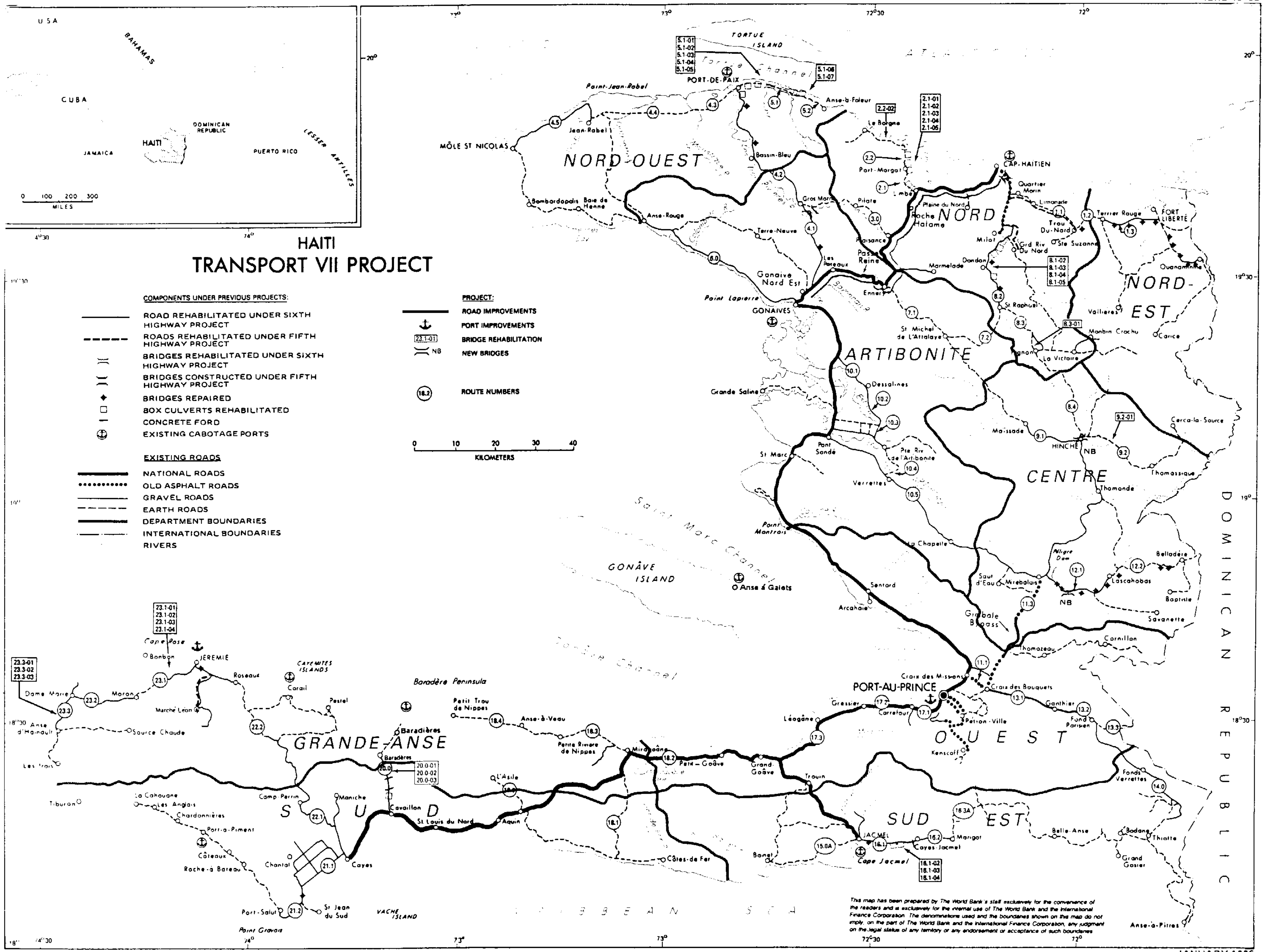

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