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### PERFORMANCE AUDIT REPORT

REPUBLIC OF MALI

FIFTH HIGHWAY PROJECT (CR-1629-MLI)

March 10, 1999

Sector and Thematic Evaluations Group Operations Evaluation Department

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### Currency Equivalents (annual averages)

Currency Unit = CFA Franc (CFAF) US\$1.0 = CFAF 555 (Sept 98) 582 (1997) 495 (1995) 280 (1993) 285 (1990)

309 (1988)

### Abbreviations and Acronyms

AFDB African Development Bank

AGETIPE-MALI Agence des Travaux d'Interèt Public pour l'Emploi du Mali

DEGP Division des Etudes Générales et des Programmes

(General Studies and Programming division)

DNT Direction Nationale des Transports (National Transport Directorate)

DNTP Direction Nationale de Travaux Publics (National Directorate for Public Works)

FAC Fonds d'Aide et de Coopération FED Fonds Européen de Dévelopement

GOM Government of Mali

ICB International competitive bidding ICR Implementation Completion Report

LCB Local competitive bidding

MTTP Ministère des Transports et des Travaux Publics

(Ministry of Transport and Public Works)

NGO Nongovernmental organization

ONT Office National des Transports (National Transport Office)

PCS Postal Checking Service SAR Staff Appraisal Report

SDC Swiss Development Cooperation SME Small- and medium-size enterprises

SLMTP Service de Location à Matériels des Travaux Publics

(Public Works Equipment Service)

TSP Transport Sector Project (Cr. 1730-MLI)

### Fiscal Year of the Borrower

January 1 – December 31

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The World Bank Washington, D.C. 20433 U.S.A.

Office of the Director-General Operations Evaluation March 10, 1999

#### MEMORANDUM TO THE EXECUTIVE DIRECTORS AND THE PRESIDENT

SUBJECT: Performance Audit Report on Mali Fifth Highway Project (Credit 1629-MLI)

Attached is the Performance Audit Report prepared by the Operations Evaluations Department on Mali-Fifth Highway Project (Credit 1629-MLI) approved in FY86 and closed on June 30, 1995, four and one half years behind schedule. The credit for SDR 50.7 million was fully disbursed. The project was cofinanced by the African Development Bank, and bilateral assistance from Switzerland.

The project aimed to protect the priority road network through the financing of a road maintenance and rehabilitation program and reconstruction of the Bamako-Bougouni road, and to strengthen road sector institutions through increased contracting out of maintenance works to the private construction industry, improving the efficiency of force account operations, and improving resource allocation and road financing. The project also aimed to deregulate the road transport sector.

Project implementation suffered major delays due mainly to the agency's slowness with procurement. This triggered a suspension of disbursements in 1990, which resumed following the issuance by Government of a Letter of Sector Policy that positively affected project execution. Overall, the project achieved most of the physical objectives: 466 km of paved roads (95 percent of the target) underwent periodic maintenance or rehabilitation; the Bougouni-Bamako road (152.2 km) was reconstructed, except for its urban section (7.3 km). Works on gravel roads fell significantly short of the target, since only 95 km (18 percent of target) were rehabilitated or maintained. Road maintenance equipment was rehabilitated and some new equipment was purchased, but it is likely that, given the age of equipment at start of the project and the high cost of repairs, the funds would have been better spent in more equipment and less repairs. The audit finds that the physical investments had an economic rate of return in the order of 30 percent, which is high although lower than expected. While traffic growth was generally higher than forecast, substantial increases in unit costs and implementation delays led to a drop in the return.

The project intended to focus on the maintenance and rehabilitation needs of a priority or core road network. However, the size of this network, at close to 8,800 km, was similar to what Mali's public works agency had historically maintained. The audit finds that while the concept of a core or priority network is an appealing one to maximize the efficiency in the use of the road maintenance budget, this concept needs further refinement, considering optimal and achievable funding levels and maintenance standards for various categories of roads. Also, attention should be paid to assist those left 'out-of-the-box', that is, the populations located nearby roads whose maintenance no longer is financed under the government budget.

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On the institutional side, no material progress was achieved in strengthening institutions, although some steps were taken. The studies and technical assistance were carried out, and they helped in launching the conversion of the public works equipment pool into a public-private, equipment leasing company, contracting out of routine maintenance with private contractors and the liberalization of the road sector. The contracting out policy was reinforced by the Sector Policy letter. This letter set targets calling for all rehabilitation and periodic maintenance works to be done by contract. For routine maintenance, a target of 30 percent was set for 1993, which was not achieved. However, by 1998, close to 40 percent of the routine maintenance program had been contracted out.

The audit rates outcome as marginally satisfactory (slightly lower than the ICR, because of the few institutional achievements, long implementation delays and large cost overruns), institutional development impact as modest, Bank performance as satisfactory and Borrower performance as unsatisfactory, in line with ICR ratings. The audit rates sustainability as uncertain (rated as likely by the ICR) because road maintenance funding continues without a sustainable financing mechanism, and current budget levels, while better than in the past, are still below requirements. Re-establishment of a Road Fund (the one that existed was dissolved in 1990) that could ensure adequate, longer term funding of maintenance if properly designed, notably with road users and other private sector stakeholders involved it is management, has been launched, but it will take time until it becomes operational and its effectiveness demonstrated.

Four key lessons emerge from this project. First, improving the execution of routine road maintenance requires simultaneously stimulating the local construction industry by making the size and duration of contracts more attractive, especially in the remote areas, by establishing pluri-annual programming, and by improving the equipment leasing company's management and equipment to better serve the needs of local contractors. Second, assessing progress and attainment of goals in key areas of highway operation requires improving monitoring, notably instituting a more rigorous and systematic rating of road condition (including the roads' passability in rainy periods), traffic counting, and keeping track of the achievement of important policies such as contracting out. Third, the idea to prioritize road maintenance expenditures by defining a 'core road network' is sound, but to avoid further hurting the more isolated and poor people, implementation requires a comprehensive view of the whole network, including assistance strategies for the population near roads excluded from the central government maintenance budget. Fourth, road funding mechanisms should be based on a full macroeconomic and sectoral dialogue, notably to define the terms and conditions under which a Road Fund would be advisable.

- the

Attachment

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This report was prepared by Hernan Levy (Task Manager), who audited the project in September 1998. William B. Hurlbut edited the report. Romayne Pereira provided administrative support.

# **Principal Ratings**

	ICR	OED/ICR	PAR
Outcome	Satisfactory	Satisfactory	Marginally Satisfactory
Sustainability	Likely	Uncertain	Uncertain
Institutional Development	Partial	Modest	Modest
Bank Performance	Satisfactory	Satisfactory	Satisfactory
Borrower Performance	Deficient	Unsatisfactory	Unsatisfactory

# **Key Staff Responsible**

	Division Chief	Task Manager
Appraisal	F. Soges	J. Bentchikou
Completion	A. Harth	A Inal

### **Preface**

This is a Performance Audit Report (PAR) for Mali's Fifth Highway Project (Credit 1629-MLI), for which IDA approved a credit of SDR 50.7 million on September 19, 1985. The credit closed on June 30, 1995, 54 months later than planned. The project was cofinanced by the African Development Bank (AfDB) and the Swiss Development Corporation (SDC).

This report is based on a review of the Implementation Completion Report (ICR) prepared by the Africa Region; the Staff Appraisal Report (SAR); credit documents; project files; transcripts of Board proceedings; project correspondence files; other Bank project, sector, and country documents; and on discussions with IDA/Bank staff.

An Operations Evaluation Department mission visited Mali in September 1998, and discussed the effectiveness of IDA's assistance with officials of the Ministry of Transport and Public Works, the Ministry of Rural Development, and private contractors.

The audit adds value to the ICR by emphasizing three important transport sector issues: preserving the road network, contracting out and developing the local construction industry, and funding road maintenance. The audit also broadly assesses the project's economic return on investment, which was not reported in the ICR.

Following standard procedures, copies of the PAR were sent to the Malian authorities and to the cofinanciers for comments. Comments received are attached as Annex C.

### 1. Background

#### The Country Context

- 1.1 Mali has a GNP per capita of \$240 (1996), about half the average for sub-Saharan Africa. Agriculture provides a livelihood for about 80 percent of the 10 million people in Mali and accounts for nearly half the GDP and three-quarters of export revenues. Agricultural production is concentrated mostly along the Niger River and in the Southeast.<sup>1</sup>
- 1.2 A 50 percent devaluation of the CFA franc in 1994 increased the competitiveness of Mali's main exports and led to a substantial increase in economic activity. From 1994 to 1997, real GDP grew at an average of 4.8 percent, compared to 2.3 percent between 1990 and 1993. Inflation fell dramatically from a high of 24.8 percent in 1994, to an estimated –0.4 percent in 1997. Net foreign direct investments multiplied fourfold from 1990–93 to 1994–97, when investments reached an annual level of \$38.5 million, mostly concentrated in mining. Fiscal performance has improved, in part, due to reform in petroleum product taxation. Revenue collection remains low, however, limiting the government's ability to finance needed investments in the social sectors and in basic infrastructure.
- 1.3 In 1992, Mali made a transition from a military government to a democratically elected government. It has since been seeking to reform government institutions and to expand the market economy and the role of the private sector. Political circumstances have made it difficult to implement reforms, though, and the privatization process was practically paralyzed during 1995–97.

#### The Transport Sector

- 1.4 Transport is a key strategic sector for Mali, mainly due to the country's large size (1.24 million km²), its scattered population, landlocked position, and heavy dependence on foreign trade (40 percent of GDP). Transport costs in Mali are high because of the long distances between agricultural production areas and consumer markets, and because of the poor state of the country's infrastructure. International traffic is divided about one third through the railway linking Bamako and Abidjan and two thirds through the road to Abidjan.
- 1.5 The road system of Mali consists of about 2,500 km of paved roads, 1,500 km of gravel roads, and 10,500 km of tracks. While the country substantially expanded its road network during the 1970s and early 1980s, the network's density of 1.17 km per 100 km² and 1.6 km per 1,000 population is the second lowest in Western Africa (after Mauritania). The condition of the road network has suffered from inadequate maintenance resources, low efficiency in maintenance management, and overloaded trucks. Systematic degradation of the road network before the mid-1980s, and the higher cost of road rehabilitation and reconstruction when maintenance was inadequate, led the Bank in the mid-1980s to develop a "core network" approach. Allocating resources to this core network, Bank staff believed, would make efficient use of limited maintenance funds. The Bank also started to emphasize the need to transfer maintenance activities from public works departments to private contractors. These two initiatives are reflected in the Fifth Highway Project.

<sup>1.</sup> The information in this section is from the 1998 Country Assistance Strategy (CAS).

#### **Related Bank Operations**

1.6 A follow-on operation furthered the aims of this project: the Transport Sector project, Credit 1730-MLI, approved in May 1995 and currently under implementation.

## 2. Project Objectives

- 2.1 The Bank has a long history of involvement in Mali's transport sector. It has implemented five highway projects and three railway projects, for a total of about \$130 million in Bank assistance. This excludes the Transport Sector project currently under implementation (IDA credit for \$65 million equivalent, plus cofinancing of about \$240 million equivalent by the government and several bilateral and multilateral agencies).
- 2.2 The main objectives of the fifth project were to protect Mali's core road network and to strengthen its transport sector institutions. The detailed objectives and components are listed in Table 2.1, and their coherence and relevance to the Bank's assistance strategy and to the needs of the country are discussed below. The Transport Sector project is continuing to pursue several objectives of the fifth highway project.

#### Coherence and Relevance

- 2.3 The objective to protect Mali's key roads, and to strengthen the institutions responsible for this, was consistent with the Bank's overall road strategy in sub-Saharan Africa at the time. To achieve this objective, it was essential to ensure the financing of road maintenance. As noted in the ICR, the appraisal had identified as a key project risk, the lack of adequate counterpart financing, since such funding was to be provided by a Road Fund with insufficient resources and that mainly came from illiquid postal checks. Mitigating measures contemplated at appraisal to counter this risk became moot, as the Road Fund was dissolved under the 1990 Structural Adjustment Program.
- 2.4 The physical components supported the project's key objective. The road maintenance and rehabilitation program was a rational choice and was expected to have a high pay-off. The Bamako-Bougouni road, whose reconstruction was financed under the project, was 30 years old and considered the worst part of the vital Bamako-Abidjan route.
- 2.5 Although the overhaul and renewal of maintenance equipment was an essential component of the road maintenance program, this component raised two issues. The first was the relative proportion to be allocated to spare parts for rehabilitation of existing equipment, versus the allocation for the purchase of new equipment. Too high of an allocation may, in fact, have been made to rehabilitate old equipment (CFA 2.8 billion, or 84 percent of this component went to equipment rehabilitation).<sup>2</sup> The second was the fact that this component was to provide the public roads agency with additional assets, at a time when the long-term policy was to stimulate the privatization of road maintenance operations.

<sup>2.</sup> New equipment: 551 million CFA (1.35 million SDRs) repairs/spares: 2,798 million CFA (7.0 million SDRs). DNTP claims that, in some cases, the repair costs were up to 60 percent of the price of new equipment. (The ICR does not discuss this issue.)

### **Borrower Ownership**

2.6 The project received only lukewarm government support at the time of appraisal, in part because government policy envisaged construction of new roads, while the project emphasized maintenance and contained a covenant specifically requiring that the project submit multi-annual investment plans, backed by economic analysis, for review by the IDA.

**Table 2.1 Project Objectives and Description** 

Objective	Component
Protect the core network of roads  Strengthen the institutions concerned with road infrastructure and	<ul> <li>A road maintenance and rehabilitation program comprising 8,200 km of high priority roads and including</li> <li>Three and a half years of routine road maintenance operations</li> <li>Periodic maintenance and rehabilitation of 492 km of paved roads and 535 km of unpaved roads</li> <li>Overhaul and renewal of road equipment</li> <li>Reconstruction of the Bamako-Bougouni Road (160 km).</li> <li>An institutional strengthening program including</li> <li>Reorganization and technical assistance to the</li> </ul>
transport through	national transport office (ONT) for transport sector
<ul> <li>Growing involvement of the local private construction and mechanical industries in road maintenance operations</li> <li>Development of a reduced but more efficient capacity of force account works</li> <li>Strengthening of personnel management and development, including training</li> <li>Introduction of measures ensuring full financing of recurrent road maintenance costs from local sources and a balanced allocation of resources to road investments and maintenance</li> <li>Continued and expanded institutional development of the road transport subsector</li> </ul>	<ul> <li>The general studies and programming division (DEGP) for project coordination, implementation of planning and financing mechanisms and feasibility studies</li> <li>The technical studies and works division (DETT) for engineering studies, supervision of civil works and improvements in force account works</li> <li>The equipment service (SMTP) for improving equipment maintenance and overhaul efficiency</li> <li>A training program for public works personnel</li> </ul>

#### **Project Cost and Financing**

2.7 The actual project cost of \$87.6 million was 19 percent higher than the appraisal's estimate. The increased cost was largely due to the devaluation of the U.S. dollar during the early years of the project. The devaluation of the Malian currency, in January 1994, when the fixed parity of the CFAF to the French Franc was abolished, came too late during project execution to have any meaningful countervailing effect. On the other hand, the devaluation of the dollar relative to the SDR, resulted in an overall increase in the IDA financial contribution, from \$48.6 million at appraisal, to \$69.2 million at project closing (50.7 million SDRs). Cofinancing by the AfDB and the SDC amounted to \$14.2 million, <sup>3</sup>and came close to the estimate in the SAR. The government's contribution of \$4.2 million was less than half of the SAR estimate, which reflected the country's fiscal constraints during project execution.

### 3. Project Implementation and Achievement of Objectives

- 3.1 The project closed four and a half years after the original closing date. As noted in the ICR, the significant delays were due mainly to a combination of three factors, subject either to implementing agency or government control: (i) slow, cumbersome procurement procedures throughout project implementation, particularly for works executed by contractors; (ii) poorly conceived civil-works contracts; and (iii) a brief period of suspension of disbursements in 1990. In addition, the project was affected by the period of civil unrest in 1991, which led to a transition from a military to a democratically elected government in 1992. A period of political instability ensued, resulting in several government reshuffles.
- 3.2 This audit finds puzzling that, after four highway projects, the Bank and the borrower could not find a way to speed up procurement. One reason may have been the creation, shortly before the project started, of the National Committee on Procurement, and of new government procurement rules. A second may be lack of motivation by government staff. The faster implementation of the Transport Project signals a significant improvement. The recent recruitment by the Bank's local office of a senior official from the government procurement office to assist with project implementation has probably been instrumental in facilitating procurement—and in negotiating differences between the Bank and the government of Mali.

#### **Physical Investments**

3.3 Civil Works. The three factors noted above particularly affected the execution of the civil works. An additional factor was the borrower's preference for works executed by force account. It took more than three years after project approval for the implementing agency to start the periodic maintenance works to be carried out by contract. The method of execution became a point of continuous friction between the Bank and the government. The rehabilitation of the Bamako-Segou road exemplified this. Executed by force account, works were stopped some 30 km short of the total original 185 km distance, because supervision missions found the quality of

3. US\$9.5 m the AFDB and US\$4.7 m the SDC (compared to US\$10.8 and US\$4.0 million at appraisal, respectively)

work to be poor. It is surprising that it took so long to realize this, and the audit attributes it to lack of supervision consultants, who could have given an early warning. The Bougouni-Badogo-Kalama road confirmed the problems with force account works, when the 60 km of rehabilitation works completed in 1989 had to be redone in 1997.

- 3.4 Implementation of the civil works calls into question the decision at appraisal to have 38 percent of the periodic maintenance and rehabilitation of paved roads executed by force account, rather than by contract. The appraisal report provides no explanation for this decision. While there may be good reasons for keeping some of the small, routine maintenance works by force account, there are no apparent reasons for carrying out rehabilitation and periodic maintenance by force account. The audit finds no obvious reason that would have made it unattractive for contractors to bid—such as the small size of the individual works or the remoteness of the location—that would appear to justify execution of works by force account.
- 3.5 The most important physical components of the project were largely completed: 466 km of paved roads underwent periodic maintenance or rehabilitation (95 percent of original target); the reconstruction/upgrading of the Bamako-Bougouni (a part in the Mali's vital link to Abidjan) road was fully completed (152.2 km), except for the upgrading of its urban section (7.3 km). 4Works on gravel roads were only minimally completed, as just 130 km of gravel roads (25 percent of the planned 535 km) were rehabilitated or received periodic maintenance. The shortfall was due to shortages in project funding. The ICR provided no obvious rationale for curtailing work on gravel roads more than other types of roads. This had a consequent negative effect on the condition of the country's gravel road system (see Chapter 4).
- 3.6 Road Maintenance Equipment. The procurement of equipment was also delayed by the factors mentioned above. Most of the new equipment and spares arrived some five years after project approval. On the other hand, the cost of repairs and overhaul of equipment turned out to be substantially higher than originally estimated. The funds allocated to overhaul spares and services and to purchase new equipment practically trebled the appraisal estimate. All the while, the Bank, in mid-course of the project, pushed strongly for the speeding up of the contracting out of work. The technical assistance to help prepare and manage the project's equipment component was poorly planned, and some experts arrived in Mali long before they could be useful.

#### **Institutional Objectives**

3.7 The project included a number of studies mainly in support of institutional development objectives. All the studies were carried out. The studies on multi-year investment and maintenance programs, training needs, and the reorganization of the accounting systems, intended to improve financial controls at the DNTP, became useful inputs for the preparation of the transport sector project. An environmental impact study, not originally included in the project, was an ingenious retrofit to assess the project's environmental impact, and to conduct an environmental assessment for the follow-on project. One of the studies determined that works carried out by force account were inferior to those carried out by private contractors. Another study on the transformation of the SMTP into a private leasing company, defined the organizational structure of the new company; the SMTP was actually converted into a leasing

<sup>4.</sup> Accounting to the ICR, this section was withdrawn due to differences between the Borrower and the Bank about the physical characteristics of the works.

company, although it is still experiencing difficulties in its start-up phase in this new business orientation. Issues relating to the institutional components are discussed in Chapter 4.

3.8 Compliance with Project Covenants. Compliance was deficient and led to the suspension of disbursements in 1990. Only then did compliance improve regarding covenants covering the preparation of annual project audits, the contracting out of maintenance work, and the preparation of annual investment programs having investment ceilings.

### 4. Issues in Road Maintenance Management and Finance

### **Protecting the Road Network**

4.1 Road Condition. Based on the appraisal report and end-1997 survey data, the table below compares the condition of Mali's classified road network at appraisal and the most recently published assessment.<sup>5</sup>

Table 4.1 Road Condition 1997 and 1984 (Percentages in Each Category)

Type of Road	Good and Very Good	Fair	Poor and Very Poor
Asphalt			
1997	70	17	13
1984	42	34	24
Gravel			
1997	36	17	47
1984	12	4	84
Track (Engineered)			
1997*	32	45	33
1984	0	2	98

\*excluding seasonal tracks and including non-classified roads surveyed by the MTTP

- 4.2 These numbers signal an improvement in the condition of all asphalt roads. The improvement in the first two categories may be attributable, at least in part, to the fifth project, since it financed substantial works in these categories. On the other hand, the project did very little regarding gravel roads, and the improvements are largely due to the work done under the follow-on transport project.
- 4.3 The audit finds that the DNTP paid insufficient attention to assessing road condition. This should be the main performance indicator of road maintenance operations. The Transport Sector Project contains a detailed set of performance indicators and is a great improvement over the fifth project, which contained no such targets. The Transport Sector Project targets are, however, output rather than outcome oriented, that is, works to be done, with no specific targets on road condition. At present, the DNTP rates road condition based on a visual assessment. Ideally, road condition should be measured more objectively, such as by road roughness. But this

<sup>5.</sup> Source: Observatoire des Transports, published March 1998. Road condition classification in 1997 used a three-level scale (good, fair, poor) for all surface types, while the 1984 classification used a four-level scale for gravel roads, and a three-level scale for the other two surfaces. However, for the track roads, the categories were fair, poor, and very poor. Working papers with partially updated data given to the audit mission, showed substantially lower improvement in the case of paved roads.

may be a longer-term objective, since it is a sophisticated measurement, which requires expensive equipment and training.<sup>6</sup> The Road Maintenance Initiative, a program to improve road maintenance in sub-Saharan Africa, financed by several donors and coordinated by the Bank, is encouraging countries to improve their assessments of road network condition.

- 4.4 Core Road Network. Overall project objectives were to protect the existing priority road network and to strengthen institutions. Implicit is the definition of a priority or core network. Selection of a priority network as a way to maximize the efficiency in the use of scarce resources available for road maintenance was a strategy the Bank used throughout most of Africa during the 1980s. This strategy was justified for reasons of efficiency, since a series of Bank studies had shown that if the better roads were not maintained, they would deteriorate to a point where they would need to be rehabilitated or reconstructed, at a cost several times higher than the regular maintenance costs. Inevitably, this strategy, which focuses on a priority network, raises an equity issue, as potentially large populations could be marginalized due to inadequate road access.
- 4.5 The appraisal report identified 8,790 km of roads as the priority network. The audit finds that, in fact, the priority network was practically identical in length to the road network traditionally under the responsibility of the Ministry of Transport and Public Works. According to a road inventory and condition survey prepared by the MTPW in September 1998, the total national road network, including paved and gravel roads, as well as engineered and seasonal (non-engineered) tracks, amounted to 14,776 km. Of these, close to 7,000 were seasonal tracks that were never maintained by the MTPW. On the other hand, the MTPW maintains a few hundred kilometers of tracks constructed under regional development programs and not considered of national importance. Thus, the traditional MTPW maintenance program involves around 8,000 km—9,000 km of roads, which is similar to the size of the priority road network.
- 4.6 The audit finds that the core network concept should be further analyzed, that is, Mali needs to better assess its highway maintenance program. Toward that end, it needs to consider optimal and achievable funding levels, the maintenance standards for various types of roads, and how to assist those left 'outside the box,' that is, the populations living near roads that are not maintained, or will not be maintained by the DNTP. The definition of the core network will normally require reviewing the network's functional classification (currently underway), from both an engineering and a political-economy point of view.
- 4.7 Controlling Axle Loads. Axle load controls are important to help preserve the road network because pavement deterioration grows exponentially with axle weight. Surveys done at various times have indicated widespread overloading of trucks operating on Mali's road system. One of the more recent surveys, in 1994, found trucks often loaded with the equivalent of 22 tons per axle (and occasionally up to 30 tons), close to double the design axle weight in Mali's main roads.

<sup>6.</sup> Other sub-Saharan African countries, such as Malawi, use the measure to rate road condition. Brazil and many other countries periodically measure roughness to assess road condition.

<sup>7.</sup> The ICR does not mention the core network.

<sup>8.</sup> SAR Annex 2-3. In the text, the SAR mentioned a figure of 8,200 km as the priority network.

<sup>9.</sup> As is true in most of Africa. Overloading is a way for small, undercapitalized trucking operators to maximize profits.

- 4.8 The project financed axle and vehicle weighing equipment. The audit found that during the period 1992–95 the equipment was tested, but no fines for overweight vehicles were imposed. The tests were used mainly to train highway personnel and to sensitize truckers. After two years, the equipment broke down. New equipment, provided under the current project, is undergoing a test period in parallel with a sensitization campaign, practically repeating the cycle of some five years ago.<sup>10</sup>
- Enforcement of vehicle weight controls is difficult, and the record of success in emerging countries is mixed at best. OED audits in other countries confirm this. A period of equipment testing and a public relations campaign is necessary before real enforcement and the imposition of fines. The key success factor is government commitment, properly working equipment, well trained personnel, and well laid out cooperation between highway officials and the police. Penalties should be realistic and enforceable, but also deterrent; this applies to the amount of the fines and policies for offloading, which should be limited to severe cases. Official government statements, at the highest political level in the road sector, are necessary to signal the government's will to enforce weight controls. The contracting of vehicle and axle weight control with private operators is being recognized and adopted in many places as the best course of action. 11
- 4.10 Maintaining Rural Roads. Mali has some 30,000 rural roads and tracks. Of these, only some 2,900 km were considered part of the core network to be included under the project. Since these rural roads and tracks are important for providing access to a high proportion of Mali's territory, it is fortunate that the ongoing transport project covers the improvement of rural roads.
- 4.11 Mali's rural/feeder road system has been developed and managed in several ways, but mainly by regional development agencies such as OHVN, the agency charged with Upper Niger Valley development, and CMDT, the textiles (mainly cotton) development company. As a result, the network is characterized by widely varying design standards. Once the roads were built, they were managed by the developing agency or by the national highway agency; but these roads generally remained the responsibility of their respective communities. Overall, only about a tenth of the rural roads are regularly maintained. Consequently, most rural roads are not passable during the rainy season. Many of these roads were built without consultation with the affected or beneficiary population, so there is little sense of ownership of these assets.
- 4.12 Diversity in design and management should be viewed as a better adaptation to local conditions. However, problems with the rural road system need to be faced. For example, a prevalent opinion is that many of these roads are overdesigned, with excessive construction and maintenance costs relative to the traffic they bear. This is not peculiar to Mali, but it is a common issue throughout sub-Saharan Africa.<sup>12</sup>
- 4.13 The problems with rural roads will become more central as a new program of rural infrastructure, which includes substantial construction and rehabilitation of rural roads, is

<sup>10.</sup> Transport Project, Supervision Report, 1998.

<sup>11.</sup> For example, Uruguay is using this approach and Malawi is proposing to start it soon.

<sup>12.</sup> The Rural Transport and Travel component of the Road Maintenance initiative is preparing a strategy for rural roads, and will address issues such as ensuring maintenance, involving the population and reviewing design standards.

implemented.<sup>13</sup> This program could have an important role in providing central government technical assistance toward an improvement of rural roads.

### Contracting Out and Developing the Construction Industry

- 4.14 Development of the Local Construction Industry. Project objectives explicitly noted the intention to promote the involvement of private contractors in periodic road maintenance operation and in road rehabilitation. The project also noted that local contractors were beginning to develop. However, the project did not contain any specific actions to support the development of the local construction industry, such as better access to credit and the design of contracts attractive to small, local contractors. On the other hand, increased contracting out of road work requires strengthening of the capacity of the MTTP for preparing and managing bid competition and contracting.
- 4.15 Mali's domestic construction industry was very undeveloped at the time of the fifth highway project appraisal. It is estimated that, at that time, there were only some 10–20 contractors capable of doing substantial civil works. Of these, only a handful could do road works.
- 4.16 The project also made it clear that routine road maintenance would continue to be carried out by the regional directorates of the DNTP through force account. This approach was probably justified in the remote areas of the country, which private contractors found difficult to access, but not necessarily in the main road axis of Bamako-Bougouni and its vicinity. In fact, the government was already committed by its Transport Policy Letter of October 1990 to (a) carry out, by means of a contract, all maintenance works, except routine road maintenance; and (b) even for routine maintenance, the government was required to subcontract 15 percent of such work in 1992, and 30 percent in 1993. By the end of 1992, no routine maintenance work had been subcontracted. 14 Representatives of local contractors interviewed by the auditor claimed that the public works services opposed involving private contractors, more as a matter of principle, than because of difficulties in implementation. They also complained that the local construction industry was seriously hindered in seeking work in periodic maintenance works because it often was underbid by state-owned third country contractors operating in Mali. 15 On the other hand, these contractors have helped lower prices, which is beneficial to Mali since international competition for works in Mali is limited, and prices tend to be high.
- 4.17 The project should have more actively sought ways to support the involvement of the local construction industry. To a large extent, local contractors would have been better placed to carry out routine maintenance, rather than their doing periodic or rehabilitation maintenance works that required substantially more capital.
- 4.18 In practice, the local construction industry developed greatly in the last years, thanks to the impetus given by the AGETIPE, <sup>16</sup> an autonomous executing agency created through the

<sup>13.</sup> World Bank project supporting a Program for the Development of Rural Infrastructure.

<sup>14.</sup> Chapter 4 and 5 of the Transport Sector Memorandum dated May 25, 1994

<sup>15.</sup> This occurrence is not limited to Mali and has been found in OED audits in other countries.

<sup>16.</sup> Agence d'Execution de Travaux d'Interet Public pour l'Emploi du Mali. (Malian Public Works Executing Agency).

Public Works and Capacity Building Project in 1992. By 1997, the number of qualified civil works contractors had reached close to 1,300 companies. However, despite this progress, the audit found that even today there is no local contractor equipped to carry out bitumen work. On the other hand, some ten contractors now qualify to carry out earth and other civil works contracts exceeding one billion CFAF. This number of contractors is adequate to ensure competition and in relation to Mali's needs.

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- 4.19 Preparing Multi-Year Maintenance Programs and Budgets. To make the small routine maintenance works attractive to private contractors, it is essential that these contractors be assured of continuity of work over a period of two or three years, especially in the most remote areas, involving high transport costs for equipment and management travel. This would require the roads department to do pluri-annual programming and budgeting of routine maintenance. The DNTP does this type of programming and budgeting for new construction and for periodic maintenance. However, administrative procedures for recurrent expenditures, such as routine maintenance, have traditionally been done on an annual basis. The routine maintenance program of the MTPT is elaborated on the basis of the annual submissions made by the various maintenance districts and fit within (annual) budget constraints. Moving toward pluri-annual programming and budgeting, as the project had intended, requires a change of mentality and procedures at all administrative levels. Achieving this requires strong coordination with, and support from, the Ministry of Finance. 17 There is no evidence that the project sought such coordination.
- 4.20 Management/Privatization of the Equipment Pool. The highway maintenance equipment owned by the MTPW could, depending on how it is managed, be an important factor supporting contracting out work, as well as the local construction industry. The Fifth Highway Project—notwithstanding its improvement of the quality of the equipment—had modest institutional objectives which were, basically, to strengthen the organization of the SMTP (an agency of MTPW), which was operating such equipment. Under the transport sector project, a significant transformation was launched—from direct operator into a leasing company (now called SMLTP) with private sector shareholding. A leasing company could potentially be of significant help to private contractors by making available expensive equipment that most individual contractors would not be in a position to purchase.
- 4.21 The start-up of the new entity is slower than anticipated. Its equipment is old and in poor condition, partly because the fifth project financed a too high proportion of repairs, as opposed to new equipment. Upon the creation of the SMLTP some of the better equipment was sent to the more remote maintenance districts, such as Gao, Kayes and Timboctou (a reasonable decision given the lack of interest by private contractors, then and even now, to work in these regions). The transport project envisaged the purchase of equipment for \$5 million, but the financing source was not identified at appraisal, and has yet to materialize. MTPW's intentions to achieve a 80/20 ratio between the private sector and the government, in the ownership of the SMLTP, have not materialized. Only a very few private investors, mostly business people outside the construction industry, have been found. The poor condition of the equipment and the initial management team appear to have been a major deterrent to securing a higher amount of private capital.

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<sup>17.</sup> Operational staff have noted that multi-annual contracts are being introduced under TSP.

4.22 It is too early to judge whether creating a leasing company was the best option for managing the highway equipment pool. This audit's analysis and discussion with private contractors concludes that, for the time being, it appears to be. The radical alternative, dissolving the SMLTP and selling its equipment to private investors, would leave private contractors without access to leased equipment. It would also reduce flexibility in the use of equipment between private contractors and highway maintenance districts of the DNTP. It may, however, turn out to be the best course, if current ailments cannot be cured.<sup>18</sup>

#### **Funding Road Maintenance**

- 4.23 At the time of project appraisal, Mali had in place a Road Fund, funded by 45 percent of total fuel tax revenues. The project considered the amounts collected to be insufficient to cover road maintenance needs, and the government of Mali agreed to increase the resources of the Road Fund, by allocating to it revenues collected by the Road Passage Fee (Droit de Traversee Routiere) and from increased fuel taxes. In addition to the insufficient level of resources, the appraisal noted another problem with the Road Fund: the illiquidity of its revenue. The problem stemmed from the fact that a significant and growing share of Road Fund resources (over 90 percent in the early 1980s) was in the form of checks drawn on Mali's Postal Checking System (PCS), which was underfunded. Measures to liquefy the PCS were beyond the scope of the highway project, but the appraisal report appeared confident that, at least, funds provided under the project would ensure that PCS problems would not jeopardize project objectives in the early years.
- 4.24 In retrospect, a more detailed analysis of the Road Fund, and lessons learned from other countries' experiences, would have uncovered significant problems. The main problem was that if the PCS were to be liquefied, Road Fund resources—even though earmarked and separated from the general budget and administered by the National Directorate of Public Roads—would still be subject to appropriation by the treasury, particularly as the national budget was perennially in deficit, to the tune of some 10 percent of GDP. The other problem was that the fund was managed directly by the national road department, without participation of users, and with little accountability controls. As such, it had little political support, and was likely to become a target for treasury officials which would eventually result in its dismantling. Other types of problems encountered with road funds, which were structured and managed like Mali's, included lack of, or inadequate mechanisms for objectively allocating funds, the withholding of payment by oil companies, and insufficient road fund coverage of road maintenance needs. In addition, in the case of Mali, the Road Fund resources came from a transfer of traditional budget revenues, rather than from incremental and separate revenues specifically earmarked for road works.<sup>19</sup> These problems have become increasingly evident as many road funds in Africa have failed for similar reasons.

18. Other countries in the region, such as Cote d'Ivoire and Senegal have dismantled the state-owned equipment pools, but the level of economic activity and the strength of the private contractors in these countries is substantially higher than in Mali. Burkina, which is more relevant to Mali, has had a government-owned equipment leasing company for 10 years and appears to be doing well techically and financially, as reported in World Bank Africa Transport, Technical Note #7, April 1997.

<sup>19.</sup> See Management and Financing of Roads—An Agenda for Reform, by Ian Heggie. World Bank Technical Paper #24, Africa Technical Series, March 1995.

4.25 As it turned out, the Road Fund was abolished in 1990 as part of the measures agreed to under a Structural Adjustment Program. Since then, road resources have been allocated under the national budget. Resources for routine maintenance have increased slightly, and have met or exceeded the minimum levels under the transport sector project. But, as shown in Table 4.2, they were substantially less than government's current estimates.

Table 4.2 Funding of Routine Maintenance (CFAF Billion)

	1995	1996	1997	1998
Actual	4.0	4.2	4.3	4.4
Transport Project SAR - minimum funding levels (@580 CFAF per dollar)	3.2	3.6	4.0	4.3
MTTP estimate of requirements (as of Sept. 1988)	5.2	5.7	6.0	7.5

- 4.26 Under the ongoing transport project, the government is studying the feasibility and usefulness of reestablishing the Road Fund. This study reviews the structure of user charges and the conditions under which a road fund could be recommended. A recommendation to establish a Road Fund apparently was issued after the audit mission. One idea being considered would be the creation of an entity similar to AGETIPE, which, acting as delegated administrator, would help expedite bidding, contracts, and payments for road works.
- 4.27 This audit does not intend to preempt the results of the study or the current discussions to launch a Road Fund. However, it is important to note that the relevant experiences of other countries should be taken into account. Should Mali decide to establish a new road fund, it should seriously consider establishing a road fund that abides by the principles of commercial road management. Four basic principles for commercializing the road system should be considered:<sup>20</sup>
  - the creation of a sense of ownership by involving road users in management, so as to win public support for adequate funding and control of the road agencies (users' involvement normally leads to the introduction of sound business practices);
  - the securing of an adequate and stable flow of funds;
  - the clarifying of responsibilities; and
  - the strengthening of the management of the sector by the adoption of private sector management practices.

<sup>20.</sup> Extracted from the Heggie paper quoted in the above footnote.

### 5. Ratings

#### Outcome

- 5.1 The project's main objective, underpinned by components focusing on rehabilitation and maintenance of the network, was to preserve Mali's core road network. This objective was relevant, but because the project did not include specific targets for road condition, there is no clear yardstick for assessing its achievement. As noted in the previous chapter, the condition of the road network is better today than at the time of the appraisal. Regarding the paved roads and the tracks, the fifth project is likely to have been helpful. Regarding gravel roads, the improvement is very likely the result, in large part, of the TSP.
- 5.2 The ICR noted that the lack of current traffic data prevented reestimation of the project's economic return.<sup>21</sup> The appraisal report had calculated prospective economic rates of return separately for the reconstruction of the Bamako-Bougouni road (15 percent for the interurban section, and 65 percent for the urban section that was dropped from the project during implementation), for the maintenance of the paved road network (34 percent), and for the maintenance of the priority unpaved sections financed under the project (over 100 percent). These estimates were based on assumptions of traffic growing at 4 percent annually on the Bamako-Bougouni road, and between 2 and 3.5 percent for the maintenance programs.
- 5.3 The table in Annex B shows 1986 and 1996 traffic (available at the time of the audit mission) for a sample of two key national roads that underwent major works under the project. In regards to national road #7 (RN7), which underwent reconstruction (the Bamako-Bougouni line), and in regards to rehabilitation/periodic maintenance on the Bougouni-Sikasso line—the annual growth rate varied considerably depending on the control point, and was on average around 4–5 percent, or slightly above the appraisal projections. On RN6 (Bamako-Segou), which underwent rehabilitation and periodic maintenance, the annual growth was in the 6–13 percent range, substantially above the appraisal projections.
- 5.4 The audit finds that the project had a satisfactory rate of return, although it was lower than expected. The substantial increases in unit costs, the reduced length of works and implementation delays more than countered the higher than estimated traffic. The rate of return for the Bamako-Bougouni road (interurban section) is likely to be around 10–12 percent.<sup>22</sup> For the rehabilitation and maintenance works, the returns are likely to remain high, although some 30 percent lower than those estimated at appraisal.
- 5.5 The project's physical components were mostly achieved, and the efficiency of the investments was satisfactory. However, the project was completed 4.5 years late and with substantial cost overruns. The project had important institutional objectives and, as noted below, very little was achieved. Overall, the project had low government ownership. Thus, on balance, the audit rates the project outcome as marginally satisfactory, slightly lowering the ICR's rating.

<sup>21.</sup> The ICR statement that the ERR would be reevaluated late in 1997 turned out to be untrue.

<sup>22.</sup> According to the ICR, the cost of the reconstruction was \$22.9 million, or about 11 percent higher than at appraisal. However, the actual cost increase was higher, since at appraisal, the urban section, which was not carried out, accounted for 20 percent of the total reconstruction costs of the Bamako-Bougouni road.

#### **Institutional Development**

5.6 The project did not achieve any material change in the management of Mali's highway system. However, a number of studies were completed that helped to raise awareness of important issues, such as the need to institute a number of measures to support the development of the local construction industry and the need to provide more clarity on the direction of needed changes. Several of the studies were useful inputs for the follow-on transport project. Thus, the audit rates the project's institutional development impact as modest, which is in line with the ICR.

### Sustainability

- 5.7 The key to the project's sustainability is funding for road maintenance. In recent years, government funding for routine maintenance has reached and even surpassed the minimum levels agreed with the Bank, but such funding still remains substantially below the DNTP's own estimates of requirements. Furthermore, the budget has not in the past proved to be a reliable, long-term financing mechanism. As noted earlier, a Road Fund is reported to be in the process of being established, and could become, if properly managed, the right mechanism to ensure an adequate and sustained flow of resources for maintenance.
- 5.8 The Road Fund has not yet been set up. Even when it is, it will take time to ascertain whether it will be up to expectations, that it has enough resources, and that they are not diverted to other uses. On this basis, this audit rates sustainability as uncertain. This rating disagrees with the ICR, which rated sustainability as likely, but confirms the earlier ICR assessment by OED.

#### **Bank Performance**

5.9 Bank performance overall is rated as satisfactory (similar to the ICR and the ICR review of OED). The project was fully consistent with the Bank's strategy to promote highway maintenance. The later phases of supervision were strong and helped steer the project to successful completion. The decision to recommend the addition of an environmental study during project implementation was sound and helped prepare the transport project, while providing a broad environmental perspective of the project and the road sector as a whole. The Bank's performance was, however, weak in some areas: at appraisal, it overestimated the borrower's implementation capacity, and the project lacked clear indicators to assess compliance of objectives. In the initial years of project implementation, the Bank project team changed frequently, altering the style of supervision and negatively affecting relations with the borrower.

#### **Borrower Performance**

5.10 The audit rates borrower performance as unsatisfactory (as in the ICR), mainly because of its poor performance during implementation, notably the slow bidding and contract procedures that led to implementation delays of more than four years. The borrower was also substantially late in conducting project accounting and technical audits. The highway administration, especially during the early implementation, appeared to systematically wish to delay the transfer of works from force account to contract, as had been agreed to in the credit documents—with a resultant substantial underachievement of project targets in this area.

### 6. Lessons Learned

- 6.1 Several major lessons emerge from this project:<sup>23</sup>
  - Improving the execution of routine road maintenance through contracting requires an integrated approach. Malian highway authorities appear persuaded that, with the exception of—at least for now—remote areas, the contracting out of routine road maintenance work could be further extended geographically, and that this would lead to better quality and lower prices. Three interrelated factors need to be tackled simultaneously to allow this to happen: the domestic construction industry needs to be further stimulated and trained; the size and duration of contracts needs to be made attractive by means of pluri-annual programming, especially for works away from Mali's Southeastern area; and the equipment leasing company needs to be better managed and better equipped to serve the needs of the local contractors.
  - Assessing progress and attaining goals in key areas of highway operation require improving monitoring. This should start by a more rigorous method of assessing road condition, since improving road condition should be an important objective of maintenance managers. Road condition measurement should also record the passability of rural roads during the rainy periods. Monitoring should also be improved regarding traffic counting and recording progress in the implementation of important management policies, such as contracting out.
  - The 'core road network' concept is a useful concept but its implementation needs a comprehensive view of the whole network. Prioritizing the allocation of scarce maintenance resources to key roads is certainly a cost-effective principle. However, its application needs to consider whether some roads will be maintained at a lower level of resources, and whether others will be completely excluded from the national budget. For the latter, the central highway authorities should consider the likely effect on the accessibility of the local communities and possible measures to help mitigate the impact of withdrawing government resources. A periodic review (for example, every 3 years) of the core network should be undertaken to confirm or amend the composition of the core network, and to assess the situation of the non-core roads.

<sup>23.</sup> The ICR contains an excellent list of individual lessons, which are largely reflected in the design of the Transport Sector Project. The audit in part builds on those lessons and focuses on a smaller number of more global lessons.

• Road funding mechanisms should be based on full macroeconomic, sector-level and stakeholders' dialogue and agreement. The dismantling of the Road Fund under a structural adjustment program illustrates the need for a consensus between the macro and the sector perspectives and actors. It also signals that Road Fund resources need to be supplemental to the regular tax revenues accruing to the national budget. Such a dialogue, involving government and Bank sector and macroeconomic specialists would be essential during the process of creating and launching the new Road Fund—especially in order to decide the conditions (including source of funds, criteria for allocation of fund resources and financial control mechanisms) under which the Road Fund would operate and gain the support of policy makers and central government agencies. This dialogue needs to be complemented by strong participation of road users and other stakeholders.

17 Annex A

## **Basic Data Sheet**

## FIFTH HIGHWAY PROJECT (CREDIT 1629-ML)

### Key Project Data (amounts in US\$ million)

	Appraisal estimate	Actual or current estimate	Actual as % of appraisal estimate
Total project costs	73.4	87.6	119
Loan amount	48.6	69.2	142
Cofinancing	15.3	14.2	92
Cancellation	-	-	
Date physical components completed Economic rate of return	Dec 31, 1989 over 40%	June 30, 1995 over 25%	

### **Cumulative Estimated and Actual Disbursements**

	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93	FY94	FY95	FY96
Appraisal estimate (US\$M)	3.3	8.1	11.3	12.2	9.4	4.3					
Actual annual	5.5	12.2	12.0	9.1	1.6	1.9	5.4	6.3	12.6	2.1	
Actual as % of estimate	167	151	106	75	17	44			***		
Appraisal estimate cumulative	3.3	11.4	22.7	34.9	44.3	48.6					
Actual cumulative	5.5	17.7	29.7	38.8	40.4	42.3	47.7	54.0	66.6	68.7	
Actual as % of estimate	167	155	131	111	91	87					

### **Project Dates**

	Original	Actual
Identification (EPS)	April 1983	April 1983
Preparation	April 1983 - April 1984	April 1983 - April 1984
Appraisal	May 1984	May 1984
Negotiations	March 11-16, 1985	March 11-16, 1985
Board presentation	September 19, 1995	September 19, 1985
Signing	November 4, 1985	November 4, 1985
Effectiveness	November 1985	May 1, 1986
Suspension of Disbursement	not foreseen	May 1, 1990
Letter of development policy	not foreseen	October 23, 1990
Midterm review		July 1991
Project completion	December 31, 1989	June 30, 1995
Loan Closing	December 31, 1990	June 30, 1995

**Annex A** 18

# Staff Inputs (staff weeks)

Stage	Planned		Revised		Actual	
	Weeks	US\$	Weeks	US\$	Weeks	US\$
		(thousand)		(thousand)		(thousand)
Preparation to appraisal	N.A.	N.A.	N.A.	N.A.	19.5	41.1
Appraisal	N.A.	N.A.	N.A.	N.A.	62.6	136.5
Negotiations through Board approval	N.A.	N.A.	N.A.	N.A.	27.3	56.8
Supervision	N.A.	N.A.	N.A.	N.A.	139.4	381.8
Completion	N.A.	N.A.	N.A.	N.A.	3	8.4
Total	N.A.	N.A.	N.A.	N.A.	249.8	624.6

## **Mission Data**

				Performance rating					
Stage of project cycle	Month/year)	No. of persons	Days in field	Specialized staff skills represented		Development impact	Types of problems		
Through appraisal									
Appraisal-Board									
Board - effectiveness									
Supervision 1	11/85	2	14	E, HE	not effective				
Supervision 2	2/86	1	8	HE	not effective				
Supervision 3	06/86	2	9	E, HE	1	1			
Supervision 4	10/86	1	9	HE	2	1			
Supervision 5	2/87	1	17	HE	1	1			
Supervision 6	11/87	2	10	E, HE	1	1			
Supervision 7	5/88	2	8	E, HE	1	1			
Supervision 8	8/88	1	4	HE	-	-			
Supervision 9	11/88	1	4	HE	2	2			
Supervision 10	5/89	3	17	E, E, HE	2	2			
Supervision 11	10/89	2	14	E, HE	3	3			
Supervision 12	5/90	2	15	E, HE	3	3			
Supervision 13	10/90	2	13	E, HE	3	3			
Supervision 14 (Mid-term)	7/91	2	14	E, Cl	3	3			
Supervision 15	10/91	2	16	E, HE	-	-			
Supervision 16	06/92	1	17	HE	3	2			
Supervision 17	1/93	1	22	HE	-	<del>-</del>			
Supervision 18	7/94	1	23	HE	2	2			
Supervision 19	11/94	1	7	HE	2	2			
Supervision 20	5/95	1	19	HE	2	2			
Completion 10/95	10/95	2	20	E, HE					

19 Annex B

**Traffic on Selected National Routes** 

Route	1986	1996	Annual growth rate
	(vehicles/day)	(vehicles/day)	(%)
RN6 (Bamako -S	egou Area) Rehabilitation an	d Periodic Maintenand	<u></u>
CP 216 (Baquineda-Fana)			
Heavy traffic	82	258	12.1
Total traffic	396	1348	13.0
CP402 (Banankoroni-Fanzana)			
Heavy traffic	72	228	12.2
Total traffic	359	675	6.5
RN7 (Bamako-Bougouni-Sik	asso) Road Reconstruction/f	Rehabilitation/Periodic	Maintenance
CP302 (Kolele-Zantie)			
Heavy Traffic	59	112	6.6
Total Traffic	205	239	1.5
CP303 (Zantie-Tiediana)			
Heavy Traffic	56	100	5.9
Total Traffic	157	187	1.8
CP304 (Tiediana-Niena)			
Heavy Traffic	70	108	4.4
Total Traffic	178	173	_ 0
CP305 (Niena-Natie)			
Heavy Traffic	64	200	12.0
Total Traffic	160	390	9.3
CP306 (Natie-Doniena)			
Heavy Traffic	98	200	7.4
Total Traffic	193	390	7.8
CP307 (Doniena-Zegoua)			
Heavy Traffic	76	110	9.2
Total Traffic	135	189	9.9

RN: National Route CP: control point



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DATE: 26 January 1999

The Acting Manager
Sector and Thematic Evaluation Group
Operations Evaluation Department
The World Bank
1818 H Street N.W
Washington DC 20433
USA

Dear Mr. Alain Barber,

### Mali: Fifth Highway Project, (Credit 1629 – MLI)

We wish to thank you most sincerely for sending to us a copy of your draft Performance Audit Report (PAR) for the above project.

We have gone through the report, which we find to be comprehensive; it covers all major issues in the sub-sector. We are greatly inspired by its format.

We do not have substantive comments to make, except perhaps to ask that additional information could be provided in the report to clarify on: i) the role played by the co-financiers at the various stages of the project cycle; ii) the relative components/contribution of each co-financier; and iii) the reason for withdrawing the urban section of the Bamako-Bougouni road from the project.

Once again, thank you for availing to us this report.

Yours sincerely,

Operations Evaluation Department.