

**Document of  
The World Bank**

**Report No.: 30396**

**PROJECT PERFORMANCE ASSESSMENT REPORT**

**YEMEN**

**MULTI-MODE TRANSPORT (CREDIT 2177-YEM)**

**TRANSPORT REHABILITATION (CREDIT 2819-YEM)**

**PRIVATIZATION SUPPORT (CREDIT 3298-YEM)**

**PUBLIC WORKS II (CREDIT 3168-YEM)**

**October 27, 2004**

*Sector, Thematic and Global Evaluation Group  
Operations Evaluation Department*

## Currency Equivalents (annual averages)

Currency Unit = Yemeni Rial (YR)

1994	US\$1.00	YR 103
1995	US\$1.00	YR 115
1996	US\$1.00	YR 135
1997	US\$1.00	YR 135
1998	US\$1.00	YR 135
1999	US\$1.00	YR 147
2000	US\$1.00	YR 152
2001	US\$1.00	YR 165
2002	US\$1.00	YR 176
2003	US\$1.00	YR 178
2004	US\$1.00	YR 184

## Abbreviations and Acronyms

AADT	Annual Average Daily Traffic
AIA	Aden International Airport
CAMA	Civil Aviation and Meteorological Authority
CAS	Country Assistance Strategy
ERR	Economic Rate of Return
ESAF	Enhanced Structural Adjustment Facility
GCMA	General Corporation for Marine Affairs
GCYP	General Corporation for Yemen Ports
GLTC	General Land Transport Corporation
GOY	Government of Yemen
ICR	Implementation Completion Report
ICAO	International Civil Aviation Organization
IDA	International Development Association
IMF	International Monetary Fund
MAA	Maritime Affairs Authority
OED	Operations Evaluation Department
PMS	Pavement Management System
PMU	Project Management Unit
PPAR	Project Performance Assessment Report
SDR	Special Drawing Rights
TPO	Technical Privatization Office
YBRMF	Yemeni Board for the Management of the Road Maintenance Fund

## Fiscal Year

Government: January 1 – December 31

Director-General, Operations Evaluation	:	Mr. Gregory K. Ingram
Director, Operations Evaluation Department	:	Mr. Ajay Chhibber
Manager, Sector, Thematic & Global Evaluation Group	:	Mr. Alain Barbu
Task Manager	:	Mr. Peter Freeman

**OED Mission: Enhancing development effectiveness through excellence and independence in evaluation.**

### **About this Report**

The Operations Evaluation Department assesses the programs and activities of the World Bank for two purposes: first, to ensure the integrity of the Bank's self-evaluation process and to verify that the Bank's work is producing the expected results, and second, to help develop improved directions, policies, and procedures through the dissemination of lessons drawn from experience. As part of this work, OED annually assesses about 25 percent of the Bank's lending operations. In selecting operations for assessment, preference is given to those that are innovative, large, or complex; those that are relevant to upcoming studies or country evaluations; those for which Executive Directors or Bank management have requested assessments; and those that are likely to generate important lessons. The projects, topics, and analytical approaches selected for assessment support larger evaluation studies.

A Project Performance Assessment Report (PPAR) is based on a review of the Implementation Completion Report (a self-evaluation by the responsible Bank department) and fieldwork conducted by OED. To prepare PPARs, OED staff examine project files and other documents, interview operational staff, and in most cases visit the borrowing country for onsite discussions with project staff and beneficiaries. The PPAR thereby seeks to validate and augment the information provided in the ICR, as well as examine issues of special interest to broader OED studies.

Each PPAR is subject to a peer review process and OED management approval. Once cleared internally, the PPAR is reviewed by the responsible Bank department and amended as necessary. The completed PPAR is then sent to the borrower for review; the borrowers' comments are attached to the document that is sent to the Bank's Board of Executive Directors. After an assessment report has been sent to the Board, it is disclosed to the public.

### **About the OED Rating System**

The time-tested evaluation methods used by OED are suited to the broad range of the World Bank's work. The methods offer both rigor and a necessary level of flexibility to adapt to lending instrument, project design, or sectoral approach. OED evaluators all apply the same basic method to arrive at their project ratings. Following is the definition and rating scale used for each evaluation criterion (more information is available on the OED website: <http://worldbank.org/oed/eta-mainpage.html>).

**Relevance of Objectives:** The extent to which the project's objectives are consistent with the country's current development priorities and with current Bank country and sectoral assistance strategies and corporate goals (expressed in Poverty Reduction Strategy Papers, Country Assistance Strategies, Sector Strategy Papers, Operational Policies). *Possible ratings:* High, Substantial, Modest, Negligible.

**Efficacy:** The extent to which the project's objectives were achieved, or expected to be achieved, taking into account their relative importance. *Possible ratings:* High, Substantial, Modest, Negligible.

**Efficiency:** The extent to which the project achieved, or is expected to achieve, a return higher than the opportunity cost of capital and benefits at least cost compared to alternatives. *Possible ratings:* High, Substantial, Modest, Negligible. This rating is not generally applied to adjustment operations.

**Sustainability:** The resilience to risk of net benefits flows over time. *Possible ratings:* Highly Likely, Likely, Unlikely, Highly Unlikely, Not Evaluable.

**Institutional Development Impact:** The extent to which a project improves the ability of a country or region to make more efficient, equitable and sustainable use of its human, financial, and natural resources through: (a) better definition, stability, transparency, enforceability, and predictability of institutional arrangements and/or (b) better alignment of the mission and capacity of an organization with its mandate, which derives from these institutional arrangements. Institutional Development Impact includes both intended and unintended effects of a project. *Possible ratings:* High, Substantial, Modest, Negligible.

**Outcome:** The extent to which the project's major relevant objectives were achieved, or are expected to be achieved, efficiently. *Possible ratings:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

**Bank Performance:** The extent to which services provided by the Bank ensured quality at entry and supported implementation through appropriate supervision (including ensuring adequate transition arrangements for regular operation of the project). *Possible ratings:* Highly Satisfactory, Satisfactory, Unsatisfactory, Highly Unsatisfactory.

**Borrower Performance:** The extent to which the borrower assumed ownership and responsibility to ensure quality of preparation and implementation, and complied with covenants and agreements, towards the achievement of development objectives and sustainability. *Possible ratings:* Highly Satisfactory, Satisfactory, Unsatisfactory, Highly Unsatisfactory.



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<p>This report was prepared by Peter Freeman, who assessed the project in April 2004. The report was edited by William Hurlbut, and Romyne Pereira provided administrative support.</p>
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## Principal Ratings

### Multi-mode Transport Project (Credit 2177-YEM)

	<i>ICR*</i>	<i>ICR Review*</i>	<i>PPAR</i>
Outcome	Satisfactory	Moderately Satisfactory	Moderately Satisfactory
Sustainability	Unlikely	Unlikely	Likely
Institutional Development Impact	Substantial	Substantial	Substantial
Bank Performance	Satisfactory	Satisfactory	Satisfactory
Borrower Performance	Satisfactory	Satisfactory	Satisfactory

### Transport Rehabilitation Project (Credit 2819-YEM)

	<i>ICR*</i>	<i>ICR Review*</i>	<i>PPAR</i>
Outcome	Satisfactory	Unsatisfactory	Moderately Satisfactory
Sustainability	Likely	Non Evaluable	Likely
Institutional Development Impact	Modest	Modest	Modest
Bank Performance	Satisfactory	Satisfactory	Satisfactory
Borrower Performance	Satisfactory	Unsatisfactory	Satisfactory

### Privatization Support Project (Credit 3298-YEM)

	<i>ICR*</i>	<i>ICR Review*</i>	<i>PPAR</i>
Outcome	Not Applicable	Not Applicable	Not Applicable
Sustainability	Not Applicable	Not Applicable	Not Applicable
Institutional Development Impact	Not Applicable	Not Applicable	Not Applicable
Bank Performance	Not Rated	Satisfactory	Satisfactory
Borrower Performance	Not Rated	Unsatisfactory	Unsatisfactory

### Public Works II Projects (Credit 3168-YEM)

	<i>ICR*</i>	<i>ICR Review*</i>	<i>PPAR</i>
Outcome	Highly Satisfactory	Highly Satisfactory	Highly Satisfactory
Sustainability	Likely	Likely	Likely
Institutional Development Impact	Substantial	Substantial	Substantial
Bank Performance	Satisfactory	Highly Satisfactory	Highly Satisfactory
Borrower Performance	Highly Satisfactory	Highly Satisfactory	Highly Satisfactory

\* The Implementation Completion Report (ICR) is a self-evaluation by the responsible operational division of the Bank. The ICR Review is an intermediate Operations Evaluation Department (OED) product that seeks to independently verify the findings of the ICR.

## Key Staff Responsible

### Multi-mode Transport Project (Credit 2177-YEM)

<i>Project</i>	<i>Task Manager/Leader</i>	<i>Division Chief/ Sector Director</i>	<i>Country Director</i>
Appraisal	Luis Revuelta	Michel Pommier	Everardus Stoutjesdijk
Completion	Terje Wolden	Sonia Hammam	Mahmood Ayub

### Transport Rehabilitation Project (Credit 2819-YEM)

<i>Project</i>	<i>Task Manager/Leader</i>	<i>Division Chief/ Sector Director</i>	<i>Country Director</i>
Appraisal	Terje Wolden	Alastair Mckechnie	Inder Sud
Completion	Andreas Schliessler	Hedi Larbi	Mahmood Ayub

### Privatization Support Project (Credit 3298-YEM)

<i>Project</i>	<i>Task Manager/Leader</i>	<i>Division Chief/ Sector Director</i>	<i>Country Director</i>
Appraisal	Deane Jordan	Wafik Grais	Inder Sud
Completion	Deane Jordan	Emmanuel Forestier	Mahmood Ayub

### Public Works II Projects (Credit 3168-YEM)

<i>Project</i>	<i>Task Manager/Leader</i>	<i>Division Chief/ Sector Director</i>	<i>Country Director</i>
Appraisal	A. Amir Al-Khafaji	Jean-Claude Villiard	Inder Sud
Completion	Ali Khamis	Hedi Larbi	Mahmood Ayub

## Preface

This Project Performance Assessment Report (PPAR) covers four recently completed projects for the Republic of Yemen. The first two are from the transport sector, namely, Multi-mode Transport (Credit 2177-YEM) and Transport Rehabilitation (Credit 2819-YEM). These projects were selected because they both encountered problems in implementation and presented interesting learning opportunities about projects being carried out during times of political instability; it was also necessary to verify the ratings given in the Implementation Completion Report (ICR) and the ICR Review as in some instances there was a clear disconnect. The third project, Privatization Support (Credit 3298-YEM), did not become effective as it was never ratified by the Yemeni Parliament. Nevertheless, some important lessons can be derived from the preparation, and the initiative for large enterprises such as the General Land Transport Corporation and airport passenger and cargo ground handling activities may well resume in the near future. Lastly, Public Works II (Credit 3168-YEM) is assessed. This project was a key component of the country's social safety net intended to mitigate the adverse impacts of the Economic, Financial and Administrative Reform Program.

An IDA credit of SDR 22.7 million (US\$30 million equivalent), for Multi-mode Transport, was approved on September 11, 1990 and became effective in March 1991. The project took four years longer to complete than planned, due to a poor security situation, the civil war of 1994 and also some unforeseen technical problems. A supplemental credit of US\$5.8 million was signed on June 3, 1998, to assist with these technical matters and to cover repairs to a bridge damaged in an exceptional flood. The project was finally closed four years late in June 2001. The IDA credit for Transport Rehabilitation of SDR 24.7 million (US\$37 million equivalent) became effective in November 1996. At the mid-term review in June 1999, SDR 5 million was shifted from the road to the airport component with the consent of both parties, because of the dangerous condition of the airport runway (not originally included in the airport component of the project). The project closed as planned in June 2002 and US\$5.5 million equivalent was cancelled.

The IDA credit for the Privatization Support Project was approved on November 30, 1999, in the amount of SDR 8.1 million (US\$10.9 million equivalent). The Credit Agreement was signed on February 7, 2000, and there were several extensions of the effectiveness date. Eventually the Government of Yemen advised that it did not expect to be able to muster sufficient votes for the Yemeni Parliament to ratify the agreement, which was then cancelled on April 30, 2001. There were no disbursements. Finally, the IDA credit for Public Works II for SDR 35.6 million (US\$50 million equivalent) became effective in March 1999. It closed on schedule in June 2003, after US\$46.5 million had been disbursed. By this time the project was so successful that an additional US\$ 50 million had also been secured from the international donor community as parallel financing and of this US\$33.8 million had been disbursed by June, 2003.

OED prepared this report based on an examination of the relevant Staff Appraisal Reports, Implementation Completion Reports, legal agreements, project files, documents presented to the Board, as well as other relevant reports, memoranda, and working

papers. Discussions were also held with a number of Bank staff. An OED mission visited Yemen in April 2004, conducted site visits and discussed the project with government officials and stakeholders. Their kind assistance is gratefully acknowledged.

Following standard OED procedures, copies of the draft PPAR were sent to government officials and agencies for their review and comments. Comments have been taken into account and are attached as Annex B.

## Summary

The largely mountainous geography of the Republic of Yemen isolates much of the rural population from good access to the market economy and public services. There is therefore an enormous demand for infrastructure development, especially for the delivery of social services in remote areas. In the 2002 Country Assistance Strategy (CAS) the platform for progress and poverty reduction is described as improving governance, creating an attractive investment climate, strengthening human capital, and ensuring environmental sustainability- all of which have some relevance to the projects in this assessment. The CAS also gave high priority to the importance of appropriate infrastructure spending at national and community level and to expanding basic education and encouraging private sector development.

This PPAR covers four recently completed projects for the Republic of Yemen. The first two are from the transport sector, namely, **Multi-mode Transport and Transport Rehabilitation**. In the former a priority secondary road was upgraded and technical assistance was made available for the road, maritime and aviation sub-sectors, while the latter focused on the rehabilitation of a road to improve port access and restored the functionality of Aden International Airport, damaged in the civil war of 1994. The project also continued the technical assistance begun in the first project. The third project, **Privatization Support**, did not become effective as it was never ratified by the Yemeni Parliament. Nevertheless, some important lessons can be derived from its preparation and the initiative for large enterprises may well resume in the near future. Lastly, **Public Works II** is assessed. This project was a key component of the country's social safety net intended to mitigate the adverse impacts of the Economic, Financial and Administrative Reform Program. All four projects were prepared and implemented in the context of a country recovering from conflict and the unification of two very differently managed countries into one state.

The outcome of the transport projects is rated moderately satisfactory, since in each case despite some positive results, there were also shortcomings. Institutional development is rated as substantial and both Bank and Borrower performance as satisfactory. Sustainability is found to be likely in the light of some recent positive developments in maintenance management and organizational development. The privatization support project did not become effective because the Borrower decided not to take up the credit; Borrower performance in preparation is rated as unsatisfactory. However, the initiative did encourage some positive developments and there is still a strong possibility that the privatization process will re-gather momentum. The outcome of the public works project is highly satisfactory and it is a very good case study of empowering local communities. Its sustainability is rated likely, institutional development substantial and both Bank and Borrower performance highly satisfactory.

The experience of these projects shows that either some of the key success factors were not always understood by project staff, or that their implementation proved more intractable than anticipated. Typically, these factors include adequate understanding by the Borrower of the Bank's procurement procedures, the benefits of genuine participatory involvement of local communities, the importance of good indicators for monitoring and evaluation, the need to review objectives when there are calls to amend the project

description, and the need to ensure that adequate provision is made for necessary recurrent expenditure such as maintenance. It proved easier to attend to such issues in the community-based project (Public Works II) than in the large infrastructure projects - where the government was seen as the “owner” and where capacity and resources were more severely constrained.

Lack of coordination and unclear boundaries between ministries and agencies was one reason why some projects were less successful than others. The success of Public Works II is explained at least in part by the very effective management of relationships at all levels and the clearly defined roles of the participants. Thus inter-ministry and even inter-project coordination were successfully achieved. The road projects demonstrated a disjuncture between the investment and maintenance programs and government policies. For example, oil tankers are given a waiver exempting them from axle weight regulations, while the roads are being damaged by grossly overloaded road tankers. This suggests that the Bank should take more time to assist the borrower to devise strategies to improve coordination.

The primary lessons learned from these projects are:

- That in a post conflict, country unification situation such as Yemen’s, to avoid fruitless expenditure and wasted resources, additional risk analysis is appropriate to ensure that the Government is *fully committed* to the reforms proposed and the timetable for the reform agenda.
- *Project objectives* should be framed realistically, taking into account the borrower’s ability to achieve stakeholder support for proposed changes.
- Genuine *community “ownership”* and participation can enhance the likelihood of project success as evidenced by Yemen’s Public Works program.
- These Yemeni projects show that inter-ministerial, agency and stakeholder *coordination* are crucial to project sustainability and that the Bank could be more proactive in helping to improve the general level of coordination.

Gregory K Ingram  
Director-General  
Operations Evaluation

## 1. Background

1.1 The Yemeni people have experienced difficult and sometimes turbulent times since 1990 when the Yemen Arab Republic in the north and the People's Democratic Republic of Yemen in the south were unified to establish the Republic of Yemen. At least 800,000 overseas workers were repatriated during the Gulf War in 1991 and the loss of worker remittances and foreign assistance during this period had a serious impact on the economy. This was followed in 1994 by a civil war, which, though brief, resulted in infrastructure damage in the south and a further shock to the public finance. By 1995 the Yemeni economy was close to collapse.

1.2 The Government of Yemen (GOY) then launched a series of major national economic and administrative reforms to stabilize the economy and stimulate sustainable growth which, together with a windfall in higher oil prices, led to an improved macroeconomic situation. This stabilization program has yielded good results with core inflation declining from 65 percent to around 10.5 percent in 2003. Significant structural reforms have included the lowering of tariffs and other barriers to trade, reducing regulations, licensing requirements and other barriers to entry for new firms, and gradually cutting subsidies to public enterprises. The country, however, remains vulnerable to swings in foreign exchange earnings reflecting fluctuations in oil prices.

1.3 Yemen today is undoubtedly better off than it was in 1995, but, with a gross national product of US\$460 per capita, the Yemeni people remain on average among the poorest in the region. The country's 18.3 million population is predominantly rural with 74 percent living in scattered settlements of under 5,000 inhabitants. About 42 percent of all households live below the poverty line and the unemployment rate is 25 percent. Basic health indicators, such as an infant mortality rate of 76 per 1,000, an under five mortality rate of 94 per 1,000, and a life expectancy of 56 years, are much improved since 1995, but remain below the regional average (infant mortality 40 per 1,000, under five mortality 52 per 1,000 and a life expectancy of 68). The overall quality of education remains poor and indicators are well below the regional average; for example, only 48 percent of Yemeni adults are literate, and in rural areas less than a quarter of the girls of primary school age attend schools.

1.4 Yemen's very meager water resources leave 90 percent of the population with less than minimum standards of domestic water supply. Girls and women in rural areas must often walk for hours each day to collect water for their households. Electricity reaches only about 45 percent of the population and generation capacity is falling behind demand. Telecommunication penetration, although increasing rapidly, is still low at 19 lines per 100 people. The largely mountainous geography isolates much of the rural population from good access to the market economy and public services. Less than 15 percent of the road network is paved. There is an enormous requirement for infrastructure development leading to the delivery of social services, especially in the remote areas.

1.5 Against this background the Bank has been supporting a number of inter-linked programs under the Country Assistance Strategy (CAS) for Yemen. In the 2002 CAS report the platform for progress and poverty reduction is described as improving governance, creating an attractive investment climate, strengthening human capital, and

ensuring environmental sustainability - all of which have some relevance to the projects in this assessment. The CAS also gave high priority to the importance of appropriate infrastructure spending at national and community level and is expanding basic education and encouraging private sector development. In this Project Performance Assessment Report (PPAR) a spectrum of completed projects in both transport and public works is evaluated in the context of these CAS goals. A privatization support project that did not become effective is also assessed.

## 2. Overview and Objectives

### Multi-Mode Transport

2.1 The Bank assisted the Yemen Arab Republic to establish its basic primary road network through the 1970s and '80s; the previous transport PPAR mission, FY96 evaluated the fourth and fifth highway projects and rated the outcome as satisfactory and the sustainability as likely.<sup>1</sup> With the unification of the north and south, a new set of priorities has emerged, however. Since the primary road network was nearing completion, attention has turned to the improvement of the more important secondary roads and to a greater emphasis on public works programs.

2.2 The highest priority secondary road connected the small northern towns of Harud and Huth. At project launch the road was a 157 kilometer rudimentary track and to traverse it required a minimum eight hour journey in a four-wheel-drive vehicle. It runs through the northern Governorates of Hajjah and Amran, which cover an area of 5,000 square

#### Box 1: Multi-Mode Transport Objectives and Components

##### Objectives

- To improve access to important agricultural areas;
- To address the institutional, financial and strategic development needs and improve the management of the Civil Aviation and Meteorological Authority (CAMA), the General Corporation of Yemen Ports (GCYP) and the General Corporation for Maritime Affairs (GCMA); and
- To support transport sector training.

##### Components

- Civil works construction of 157 km of the Harad-Huth road, including a bridge over the Wadi Mawr and technical assistance for construction supervision. (US\$44.74 million of which International Development Association (IDA) component US\$30.94 million);
- Institutional development of the General Corporation for Roads and Bridges (GCRB); strengthening of financial operations; staff training. (US\$1.15 million – IDA US\$1.15 million);
- Technical assistance to CAMA; study to improve cost accounting, user cost recovery and improve airport efficiency; procurement of urgently needed safety and meteorological equipment; staff training. (US\$1.96 million – IDA US\$1.86 million); and
- Technical assistance to GCYP/GCMA; study to improve port maintenance operations and policies and cost accounting system and to review linkages between port and road traffic; staff training; procurement of urgently needed tools, spare parts and equipment for maintenance. (US\$1.95 million – IDA US\$1.85 million).

1. Performance Audit Report 15752, June 12<sup>th</sup>, 1996.

kilometers and are inhabited by some 500,000 people in scattered communities. The project was selected for upgrading because of the opportunity to improve access to these remote northern agricultural areas of Yemen to unlock their economic potential. Not only would the road significantly reduce the distance to the port of Hodeidah, but it would also link to the primary route from Sana'a, the capital, to the border with Saudi Arabia.

2.3 With the unification of north and south Yemen, it was also appropriate to begin a process of addressing the civil aviation and maritime needs of the country and to identify areas of duplication as well as investment and training needs. Urgently needed equipment was to be procured under the credit for the major ports and airports and essential training or advisory services were to be provided for each of the transport authorities. The project thus financed a high priority road project for the GOY and offered timely support to address institutional shortcomings in the transport sector highlighted during the unification process. Throughout the implementation period the Harud-Huth road was constructed against a background of tribal disturbances and unrest, which led to a cessation of work for a time during the civil war of 1994. At the end of the conflict a new government was formed and a degree of stability returned, but sporadic unrest still continued until project closure in June 2001.

2.4 There were two amendments to the credit agreement for the Multi-Mode Transport Project. The first involved a change in construction methods to increase the labor content in order to accommodate Yemeni expatriates returning to Yemen as a result of the Gulf War. The second was for a supplemental credit of US\$5.8 million to finance cost overruns due to unexpected technical problems with weathered and fractured rock formations on the Al Abbaisah escarpment and to repair damage to a bridge over the Wadi Mawr caused by an exceptional flash flood.

2.5 The beneficiaries of the maritime technical assistance were the General Corporation for Yemen Ports (GCYP) and the General Corporation for Marine Affairs (GCMA). Port operations are now decentralized to the individual port authorities, while GCMA is now known as the Maritime Affairs Authority (MAA) with responsibility for coastal protection and pollution prevention and clean-up. MAA is based in Sana'a, but has branch offices in Aden and Hodeidah.

### **Transport Rehabilitation**

2.6 The Transport Rehabilitation project complemented the Multi-mode project. It comprised the upgrading of 65 kilometers of road from Hodeidah to the new grain port at Al Salif and oil terminal at Ras Essa as well as the upgrading and improvement of Aden International Airport, which had sustained serious damage in the civil war. There was also a significant technical assistance component to address various maintenance, planning, equipment, and training needs, as well as selected design and supervision costs.

2.7 This project supported three major CAS objectives, namely, to restore key economic infrastructure, to support stabilization through structural reforms and to improve portfolio implementation and sustainability. The latter two objectives would be addressed by supporting road maintenance and management institutions that would promote more efficient use of scarce public resources. The achievement of independently financed road

maintenance operations through user charges would promote macro-economic stabilization by reducing the government's budget devoted to financing road maintenance.

2.8 While the fundamental objectives of the Transport Rehabilitation Project were not changed, the project was restructured at the mid-term review, by shifting resources from the Am Ayn-Naqabah road project to cover urgent additional requirements at Aden International Airport. It was agreed that the affected road would rather be funded under the Rural Access Program.

### **Box 2: Transport Rehabilitation Objectives and Components**

#### **Objectives**

- To rehabilitate critical components of the country's road and civil aviation infrastructure; and
- To improve institutional capacity in the roads and civil aviation sectors for planning and maintenance of existing infrastructure assets.

#### **Components**

##### *Roads*

- Rehabilitation of two key roads: a) Hodeidah-Salif (65 km), connecting the new ports of Salif and Ras Essa to the main road network at Hodeidah and b) Am Ayn- Naqabah (100 km), the main link between Aden and Mukalla and carrying all traffic between the eastern region and the rest of the country. (US\$22.70 million – IDA US\$15.00 million);
- Equipment, software and training, directed at the Yemeni Board for the Management of the Road Maintenance Fund (YBRMF) to operationalize a system for road maintenance management. (US\$1.00 million – IDA US\$1.00 million);
- Technical assistance involving three activities; a) a study for planning and prioritizing maintenance needs, including condition assessment of some 2,000 km of the main road network, and the development of detailed designs for the worst 800 km; b) technical assistance to the YBRMF in implementing its maintenance program; and c) construction supervision, and implementation supervision of the above components. (US\$4.70 million – IDA US\$4.50 million).

##### *Civil Aviation*

- Emergency rehabilitation of the Aden International Airport (AIA), in response to serious damage incurred during the civil war (May-June, 1994), including a) terminal reconstruction; and b) a new control tower and technical building. (US\$15.30 million – IDA US\$11.00 million);
- Equipment including a) communications and navigational aids (with expected co-financing from France) and b) a fire fighting vehicle with accessories and spare parts. (US\$6.00 million – IDA US\$1.00 million);
- Technical assistance consisting of a) a civil aviation strategy and policy study which would review institutional problems arising from the merging of civil aviation institutions from the north and south of Yemen as well as the financial difficulties facing CAMA; and b) technical assistance for the design and supervision of works at AIA. (US\$2.10 million – IDA US\$2.00 million).

### **Privatization Support**

2.9 The GOY drew up a policy framework paper in 1997 which stated its intention to pursue stabilization, structural reforms (including privatization), and other improvements in public sector management. This was supported by an IMF-sponsored Enhanced Structural Adjustment Facility (ESAF). The IDA project was intended to help the government to achieve privatization targets and to help build the institutional capacity to manage and carry out the program. It was recognized that the excessive presence of government in some areas had led to inefficient public enterprise monopolies and over-regulation that this was constraining private investment and employment.

2.10 The project was in line with the CAS objective to create a modern public administration that would encourage and attract private sector development to help the country grow out of poverty and dependence on oil (83 percent of goods and service exports in 2001). Privatization would also help the government to divert increased financial and managerial resources away from commercial activities and toward sectors where the private sector was often reluctant to enter, but where social benefits may be high, such as education, health, and social services.

### **Box 3: Privatization Support Objectives and Components**

#### **Objectives**

- To achieve effective and transparent management of the Government's Privatization Program, 1999-2002; and
- To achieve effective and transparent management of completed privatizations of public enterprises and assets.

#### **Components**

- Institutional support for program and project management. (US\$3.40 million – IDA US\$2.30 million);
- Transactions support for the privatization of large enterprises. The enterprises targeted for privatization under the project comprised: Aden Refinery Company, Airport passenger and cargo ground handling services (at six airports), General Land Transport Corporation (GLTC), Yemen Cement Company and Yemen Drug Company (US\$6.60 million – IDA US\$4.70 million);
- Transactions support for the privatization of about 50 small and medium enterprises. (US\$3.50 million – IDA US\$2.30 million); and
- Pre-privatization strategy work on large enterprises. These were the Port of Nashtoun, the Public Telecommunications Company and Yemenia Airlines. (US\$1.30 million – IDA US\$0.70 million).
- In addition US\$1.20 million was set aside for contingencies – IDA US\$0.90 million.

2.11 The credit for the Privatization Support Project was approved on November 30, 1999. The credit agreement was signed on February 7, 2000. All conditions precedent to credit effectiveness were completed, except for ratification by the Yemeni Parliament. After several extensions of the effectiveness date, and following parliamentary elections in early 2001, the Government of Yemen informed IDA that it did not expect to be able to muster sufficient votes in Parliament to ratify the project, which was then allowed to lapse at the then terminal date for effectiveness of April 30, 2001. There were no disbursements.

## **Public Works II**

2.12 The Public Works Project is one of the main components of the social safety net that is intended to mitigate the adverse impacts of the Economic, Financial and Administrative Reform Program taken up by the GOY. On July 17, 1996, the GOY and the Bank endorsed an agreement for establishing a Public Works Program that aims to:

- Create job opportunities for both skilled and unskilled labor;
- Provide much needed basic infrastructure services for the poor communities;
- Improve the economic and environmental conditions of the poor;
- Develop local contracting and consulting firms; and,
- Enhance the level of community participation in the development process.

#### **Box 4: Public Works II Objectives and Components**

##### **Objectives**

- To assist the Borrower to carry out poverty alleviation measures targeted at the country's poor communities;
- To create jobs; and
- To provide needed infrastructure to improve services and environmental conditions affecting women and children in particular.

##### **Components**

- Community infrastructure including: water supply, sewerage, storm drainage, flood protection, roads, sidewalks, schools and health centers. (US\$53.00 million – IDA US\$43.00 million);
- Technical assistance to local communities and governments, feasibility studies, engineering designs, construction supervision, benefit assessment surveys, audits, training/workshops for consulting firms and contractors and environmental assessments. (US\$4.00 million – IDA US\$4.00 million); and
- Project management, including office equipment and vehicles to implement the project. (US\$3.00 million – IDA US\$3.00 million).

2.13 The first phase was carried out between 1996 and 2000 through IDA credit 2878 with an amount of US\$25 million, plus additional contributions from the GOY, the Netherlands government and the communities themselves, bringing the project value to US\$32.4 million. Completion of 435 sub-projects exceeded the number planned by 85 and benefited at least 2.5 million inhabitants. Because of these positive achievements it was decided to continue with a second phase between 2000 and 2004, which is addressed in this report. The second phase commenced with an amount of US\$60 million, which included a credit of US\$50 million from IDA.

2.14 For Public Works II, neither the objectives nor the components were revised. However, the project was designed to facilitate the government in securing additional funding from the donor community and other financing agencies. This strategy proved to be highly successful and attracted about US\$52 million to be disbursed for works of a similar nature as parallel financing.

### **3. Multi-Mode Transport Project (Credit 2177)**

#### **Preparation and Implementation**

3.1 The project was prepared before the Bank introduced formal performance ratings for quality at entry. However, if today's standards for quality at entry are applied, there is little doubt that the project was not ready for implementation. From the ICR it is clear that while a strategy for implementing the project was in place, additional preparatory and analytical work was needed. This is reflected in procurement problems that occurred during the first year of implementation. In addition, performance indicators were not developed until the project was in implementation and more work could have been done up front in terms of developing mechanisms for building local support and maintaining dialogue with the local people regarding the road project.

3.2 Security in the area of the Harud-Huth road was an ongoing problem and was one of the main reasons for the extraordinarily long period for implementation of a road

project of this nature (nearly ten years). Shortly after construction commenced, hostile action by the local tribes against the contractors took place and the GOY responded by providing military protection (3,000 soldiers) for workers on site. This permitted work to proceed, but at a slower rate than anticipated. The local inhabitants were not only suspicious of the government, but also of each other; there was a long history of intertribal conflict, usually over land or access to water and the established practice was to oppose and bargain whenever a new development was proposed. The problem was compounded by the repatriation of many unemployed Yemenis from the Gulf and by the civil war. The influx of Yemeni repatriates put stress on the government because of the loss of remittance income and increased pressure on available government resources. Consequently, the GOY requested, and the Bank agreed on a “by exception” basis, to permit a degree of labor-intensive construction by force account using the General Corporation for Roads and Bridges (GCRB). Some 2,000 returnees were employed in this manner, especially on erosion protection works.

3.3 A further formalized change to the project was the approval on June 3, 1998, of a supplemental credit of US\$5.8 million to finance cost overruns due to unexpected technical problems with very weathered rock formations on an eleven kilometer section of road and to repair scouring and settlement damage to the Wadi Mawr bridge, caused by an exceptional (50 year) flash flood on March 8, 1998. The floods completely washed away the floor slab designed to provide protection against scour. The superstructure shifted laterally and one of the piers tilted.<sup>2</sup> Temporary repair measures were taken while a more permanent solution was sought. During the implementation of the supplemental work, the local tribes continued to harass the contractor and consultants, demanding unjustified favors for their personal benefit.

3.4 The stabilization work was delayed by a year while a dispute was resolved between an Italian contractor and local sub-contractors. The section of failing road was characterized by intensive weathering at some locations, being the basic contributory cause for slope instability. The remedial work included rock fall protection netting, rock fall barriers, rock bolting, box gabion walls and shotcreting/guniting with wire mesh reinforcement.

3.5 Three small sections of road totaling four kilometers remained unpaved at project closure but have since been completed by GCRB. The adjacent local tribes thought that completion of these sections would facilitate raids from adversarial neighboring communities; the repairs to the Wadi Mawr bridge were also affected as no qualified contractor was prepared to bid for work in this danger zone. It was initially proposed that the work be deferred and funded under the Rural Access Program Credit, but it was instead taken up in the Transport Rehabilitation project, which included the cost of rehabilitation design of the bridge and the design and implementation of slope stability and rock protection works on the Harud-Huth road.

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2. Ministry of Public Works and Urban Development, Republic of Yemen. Harud-Huth road project: Slope stability and rock-fill protection measures and rehabilitation of Wadi Mawr bridge. Project completion report by consultants Louis Berger International, USA, and Consulting Engineering Services, India. July, 2001.

3.6 The beneficiaries of the institutional development component were the GCRB as well as the maritime and aviation authorities. The assistance consisted of equipment procurement, staff training, and short studies to identify technical assistance needs for the future. These needs were partly due to the duplication of functions following the merging of north and south Yemen and partly due to the ongoing modernization of the country's transport sector. In the case of GCRB, the technical assistance was also used to identify and appoint a private sector accountant to strengthen its financial activities. Engineers were, in addition, recruited to manage the construction of the road project.

## **Ratings**

### *Relevance*

3.7 The relevance of the project is rated **substantial** based on its close alignment with the country's development priorities, especially the improvement of access to a remote, but populous area with good agricultural potential. Although this is a secondary road, the connection from Harud to Huth is strategically important, connecting Hodeidah in the west and the main highway from Sana'a to Saudi Arabia in the east. The institutional support component is clearly also in line with the requirement to unify and strengthen the transport institutions in both the north and south of Yemen, following unification.

### *Efficacy*

3.8 The efficacy of the project is rated **substantial**. Although a long time was taken to construct the road component in difficult circumstances, and despite the fact that four kilometers remained unfinished at the time of project closure, the road itself has now been completed. A site visit by the PPAR mission revealed evidence of many new buildings, additions to existing dwellings, and market activities at all settlements visited along the road. Fresh produce was also observed by the mission being conveyed along the route, while (mainly) informal transport services were being used to meet passenger transport needs. Road usage now exceeds expectations due to a continued military presence to ensure that stability returns to the area. The Wadi Mawr bridge has been temporarily repaired and is considered safe, but a permanent solution has yet to be implemented. However, even if another extreme flood were to destroy the structure, it would still be possible to quickly construct a causeway that would remain passable on all but a few days in the year, because of the intermittent flow of the river. A complete bridge failure would not therefore permanently close the road. In summary, the first objective to improve access to an important agricultural area has substantially been met, while the institutional and training objectives have been achieved. Some 150 staff months of technical assistance were provided to GCRB alone and substantive assistance was also rendered to the civil aviation and maritime authorities. Equipment as specified in the staff appraisal report was procured.

### *Efficiency*

3.9 The efficiency of the project is rated **modest**. At the time of the ICR, using the traffic count figures for 2000, average annual daily traffic (AADT) was just 848 vehicles,

which represented an annual growth rate of only 1.6 percent, against three percent anticipated at appraisal. This was at least partly due to the poor security situation at the time, when some road users were hijacked and a number of foreigners were kidnapped in order to secure concessions from the authorities. Since that time the GOY has tackled the security problem with a fair degree of success, but only by establishing a renewed and substantial military presence in the area. The latest AADT (2003) is 1,166 vehicles, reflecting a sudden surge in demand, which means that the expected growth rate can be expected to stabilize at three percent or higher. The appraisal document calculated an economic rate of return (ERR) of 32 percent and the ICR an ERR of 21 percent due to savings in time costs and vehicle operating costs. Travel time has been reduced from eight hours to about three hours for the full distance. The re-calculation took into account worse than expected road roughness and a five percent increase in project costs. Although a supplementary credit of US\$5.8 million had become necessary, the devaluation of the Yemeni Riyal reduced the GOY contribution in U.S. dollar terms and compensated for the additional credit to some extent.

3.10 There are, however, a number of reasons why this recalculation may be on the high side. First, the project took four years longer to complete than planned, which means that the indirect benefits in the form of increased earnings from agricultural produce were forgone. Second, the cost of the military presence is a hidden price paid for stability in the area; the military traffic is also included in the benefit stream. Third, the costs of the final solution to Wadi Mawr bridge are excluded and, finally, there is reason to believe that the costs of maintaining the road are higher than normal, because even with the stabilization measures in place, the PPAR mission observed that considerable debris still has to be cleared from the road after each rainfall. It is difficult to quantify these factors, but they create sufficient doubt as to whether a “substantial” rating can really be justified.

3.11 With regard to the technical assistance (five percent of the project) no economic evaluation was carried out because the impact was not easily quantifiable. Efficiency of the authorities concerned was undoubtedly improved by the equipment purchases, although it appears that the equipment for the port of Aden was destroyed in the civil war. Spot-checks on some of the other equipment items showed that they are largely still in service. The training also appears to have been beneficial, but the consultants hired to supervise road construction performed poorly according to the ICR.

### *Outcome*

3.12 Based on the above assessment, and taking certain shortcomings into account, the outcome of the project is rated **moderately satisfactory**. The main deficiencies are the continued absence of a permanent solution for the Wadi Mawr bridge and the questionable efficiency of a project that took four years longer to complete than planned, incurring higher than expected capital and maintenance costs and on which future traffic projections and the ability to maintain the facility effectively depend on a continued military presence in the area. On the positive side, traffic usage is now much higher than it was at the time of the ICR and there is evidence that the road has stimulated development along the route.

### ***Institutional Development Impact***

3.13 The institutional development impact is rated **substantial**. In the roads sector the project assisted in building the capacity of GCRB staff to design, plan, and construct roads through training, on-site instruction, and formal seminars. The ICR comments that this improved the capability of GCRB to execute far more complex works than had previously been the case. A qualified accountant was also recruited and this led to an improvement in financial management.

3.14 Short strategic development studies for both the civil aviation and port sub-sectors were also undertaken to see best how to rationalize existing institutional arrangements. In addition, port and airport efficiency were improved as a result of equipment procured under the project and staff were trained on how to use it. Navigational equipment was replaced or upgraded at three airports and backup power supply units improved safety. Port equipment included cargo handling equipment and emergency response vehicles. Recommendations concerning further investment in equipment and training to continue to strengthen institutional capacity were made; many of these proposals were subsequently adopted by the GOY. According to GCYP, the capacity to process imports and exports in the main harbors improved as a result of the technical assistance. Civil Aviation and Meteorological Authority (CAMA) staff attended a course in Jordan on airport management and both GCMA and GCYP benefited from a port study tour. Short- and medium-term expatriate appointments were expressly designed to give on-the-job training to incumbents in all the authorities. While the absence of indicators makes it difficult to measure the impact, there is considerable anecdotal and circumstantial evidence to suggest that the result was for the most part very positive and this was amply confirmed in discussions by the PPAR mission and employees of the relevant authorities.

### ***Sustainability***

3.15 While the technical assistance projects brought solid and, as evidenced by subsequent developments, lasting benefits to the transport sector authorities, which subsequently have been used as a platform for further improvement, there was considerable doubt at project closure, and the time of the ICR, about the sustainability of the road project. The adverse security situation was the main reason for these misgivings. The road itself had not been finished because contractors were not prepared to work along certain sections amounting to four kilometers in total. The future safety and a final solution for the Wadi Mawr bridge had not been worked out and traffic was much lower than had been expected. Hijackings were not uncommon.

3.16 The PPAR mission can now report, however, that sustainability should be rated as **likely**. Not only has the road been completed, but traffic has risen substantially. The GOY has taken the security situation seriously. It has established a military camp in the area, introduced road checkpoints to facilitate the safe passage of foreigners and the President of Yemen has personally traveled the area by bus to persuade local communities of the positive links between improved security and development. The tangible impact of the road is now improving the lives of the local population as they experience the greater accessibility and see the new construction projects springing up along the roadside.

3.17 In the Transport Rehabilitation project, detailed design for a final solution for the Wadi Mawr bridge has been completed. However, because the bridge is still passable and due to the high cost of a permanent solution, there has not been a sense of urgency to secure funding to complete the repairs. This matter is still being pursued by the Bank in discussions with the GOY on the transport portfolio.

### ***Bank Performance***

3.18 Bank performance is rated **satisfactory**; there were some shortcomings, but some positive factors too. As mentioned earlier, the project preparation would not have met the standards required today for quality at entry and this led to administrative problems during the first year of implementation. Much more attention should also have been given to interactions with the local communities and the development of useful performance indicators. The preparation and appraisal phase may also have been affected by frequent changes to the composition of the Bank team and two changes in task manager.

3.19 This said, the supervision team proved to be very adaptable, given the difficulties with which they were confronted. They were flexible in accommodating the GOY's request for a more labor-intensive approach to employ returnees displaced by the Gulf War, they gave sound advice and guidance on the repairs to the unstable escarpment road sections, and they spent considerable time assisting the GOY to adapt to the unrest situation that prevailed, which not only affected scheduling, but also had technical implications. Bank staff assisted in locating quality advisors for the technical assistance component and secured additional funding for the project from six different trust funds, totaling nearly US\$94,000. This assistance has continued in subsequent projects to ensure that the unfinished items are addressed over time.

### ***Borrower Performance***

3.20 Overall borrower performance was **satisfactory**, although it could have been more proactive in supporting GCRB's efforts to finish paving the final four kilometers of project road and repairs to the Wadi Mawr bridge. The borrower was also lax in accounting for all project-related expenditures. While reasonable records were maintained for purchases and acquisitions made using proceeds from the Bank credit, information regarding related expenditures from donor partners and grain swaps involving the United States Agency for International Development were not available. Annual audits were conducted, but audit reports were rarely submitted on time.

3.21 The Project Management Unit played an important and constructive role throughout the project and was a significant factor in ensuring the project was eventually built. The borrower provided the contractor with enough security to enable the project to proceed and also saw that the conditions of the credit agreement and subsequent amendments were substantially complied with.

## 4. Transport Rehabilitation (Credit 2819)

### Preparation and Implementation

4.1 Project design took into account past experience, notably the need for simplicity of design and uncomplicated procurement procedures, while the institution-strengthening components attempted to set a new direction for sector management. Quality at entry was considered satisfactory.

4.2 The upgrading of the road from Hoedeidah to Salif commenced at the junction with the Hodeidah-Jizan highway and provided access to an existing power station, the newly completed oil terminal at Ras Essa, and grain port at Salif, as well as the local rock salt works and fishing community. Construction was straightforward; the road was completed with only a very minor delay of two months and within budget. The design accommodated areas of salt marsh and shifting sand dunes, where berms kept the sand away from the road.<sup>3</sup>

4.3 Technical assistance for the road sub-sector consisted of support for the improvement of road maintenance management, detailed design of priority improvements, and a review of the road sector. The stimulus for the component was the intent to create a Road Maintenance Fund. Most of the terms of reference for the sub-sector were met except for the procurement of weigh-pads to help control vehicle overloading.

4.4 The civil aviation component was the rehabilitation and upgrading of Aden International Airport, which had been bombed in the civil war and sustained serious damage. The works initially comprised reconstruction of the terminal, a new control tower, and a technical building. A firefighting vehicle with accessories and spare parts was also included, while communications equipment and navigational aids were to be co-financed by French development aid. However, because the condition of the airport runway had deteriorated to such an extent that it could jeopardize the safety of flights (with potentially serious economic consequences), the Bank agreed to include it in the project on an emergency basis, but this meant that another project component, the AmAyn-Naqabah road, had to be deferred to a subsequent project with the consent of all parties.

4.5 Unfortunately at this point, despite the urgency, some problems arose. First, the expected French bilateral assistance did not materialize and the GOY had to step in for the shortfall of US\$4.34 million. Second, there was a delay of over a year because the borrower did not follow the Bank procurement regulations as agreed in the credit agreement. Although CAMA followed procedures to the letter, the government “High Tender Board” took a different view on the lowest evaluated bidder and this led to protracted discussions before the matter was resolved in accordance with IDA policy. Implementation then proceeded smoothly and only minor snags were reported at the time

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3. Ministry of Public Works and Urban Development. Republic of Yemen. Hodeidah-Salif road project. Final Acceptance Report by consultants Louis Berger International, USA, and Consulting Engineering Services, India. May,2002.

of preliminary hand-over; these were attended to during the one-year maintenance contract provided for in the construction contract.<sup>4</sup>

## **Ratings**

### *Relevance*

4.6 Relevance is rated **substantial**. The project was in line with the CAS and stated government policy as outlined in two separate letters for aviation and roads. This gave priority to restoring and sustaining key economic infrastructure and supporting stabilization through structural reforms. In this context the importance of road maintenance systems was crucial as they could reduce the government's budget devoted to such maintenance and this would enable scarce resources to be redeployed elsewhere. Both rehabilitation components were high priorities. The road enabled the new ports handling grain and oil to be serviced efficiently and the airport ensured that south Yemen remained well-connected to the rest of the country.

### *Efficacy*

4.7 The efficacy of the project is rated **substantial**. The physical rehabilitation objectives for the Hodeidah-Salif road and Aden International Airport were achieved within the credit's timeframe and the quality of works was excellent. Construction of the road to Naqabah had to be deferred due to the expanded scope of the airport component. Eventually, funds for this road were secured through the follow-on Rural Access Roads program (partly financed by IDA) and it is now due for completion during 2004. The technical assistance component, and thus the achievement of the institutional strengthening objective, was significantly less successful by project closure, although some of the initiatives started by the project have subsequently made progress.

4.8 The Yemeni Board for the Management of the Road Maintenance Fund (YBRMF) was successfully established in 1995 in accordance with a law authorizing it to collect road user charges and truck overloading penalties and to use the funds to finance road maintenance expenditures. Under the project, a consultant was appointed to review the implementation of the new structure and to develop a sustainable road management fund. A sound functional pavement management system was set up and a road sector review was completed, albeit with certain shortcomings. Unfortunately, YBRMF did not achieve autonomous status to be independently funded through user fees, as envisaged, because the country was in a financial crisis and the GOY needed to keep a strict control of all income and expenditures. The detailed design of priority road improvements based on international standards was successfully undertaken, but the planned allocation of 800 kilometers was reduced to 595 kilometers, because the initial cost estimates were too low. Rehabilitation design for the Wadi Mawr bridge and measures to control escarpment slope stability were also successfully accomplished under addenda to the original contract.

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4. Yemen Civil Aviation and Meteorological Authority assessment report of the Aden International Airport project financed by credit 2819, 2001.

4.9 With regard to the aviation sub-sector, it must be recorded that the CAMA civil aviation strategy and policy study did not get off the ground as planned within the credit timeframe and, in consequence, little attention was paid to improving user cost recovery.

### *Efficiency*

4.10 Overall, the efficiency of the project is rated **modest**. The ERR for the Hodeidah-Salif road was estimated in the appraisal document at 38 percent, based on an AADT of 659 vehicles. Measurements based on two growth scenarios in the ICR painted a less optimistic forecast with a return of between 8 and 11 percent. But these lower figures were before the port developments had come fully on-stream, while it is believed that the appraisal document forecast included construction traffic and may have been artificially high. Latest available figures (2003) indicate an AADT of 755 vehicles, which indicates that the appraisal estimate was of the right order of magnitude, even though considerable construction traffic is still evident in the composition. On balance, it is likely that the ERR would not be less than 25 percent, which is a good investment.

4.11 The Aden International Airport project on the other hand was not subjected to evaluation. In the appraisal document it was argued that the project was an unavoidable expenditure because of the war damage and that the scope of works was largely dictated by safety requirements. However, the runway was also later replaced after the project was restructured and indicators were introduced. One such indicator was that normal operations would be restored by the end of the project, the other was that cost recovery in civil aviation would increase from 35 to 100 percent by the end of the project. The ICR comment on this matter is that “normal operations were restored.” But what is normal? Following the 9/11 terrorist attack, there was a clear decline in passenger demand for flights worldwide and especially in the Middle East. In Yemen the situation was exacerbated by the bombing of the USS Cole. International flights and passengers to and from Yemen fell by around five percent according to CAMA<sup>5</sup> (see table 1 below) and this also adversely affected income at a time when costs were escalating. The impact on Aden may, however, was less severe. While cargo and mail tonnages handled there was an increase in passengers. Little evidence of progress towards full user cost recovery, except for increases for over-flight fees, could be obtained by the PPAR mission, either at local or national level. Indeed, it is possible that any movement has been backwards rather than forwards. The actual level of cost recovery was opaque and possibly not even known. This issue was to have been addressed in the proposed Civil Aviation Strategy and Policy Study, but it did not take place. There was an initiative to introduce an airport tax, but this was reversed at political level after only three days.

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5. Republic of Yemen, Civil Aviation and Meteorology Authority, Air Transport Economics and Statistics, 2002 and 2003.

**Table 1. Republic of Yemen: Air Transport Statistics, 2002-2003.**

Year	Mail (tons)	Cargo (tons)	Passengers	Aircraft Movements
<b>All Airports</b>				
2003	279	1,687	1,262,968	19,494
2002	289	1,867	1,309,625	20,339
<b>Aden</b>				
2003	30	1,046	1,83,455	3,301
2002	32	1,063	180,794	3,127

Source: CAMA Air Transport Economics and Statistics.

4.12 Taking this into account, together with the failure to create a truly autonomous road fund, the poor cost estimates for the detailed design work, the failure to resolve the axle load weigh-pad problem and the inadequacy of the Road Sector Review, a higher rating for efficiency than “modest” cannot be supported.

### *Outcome*

4.13 The physical achievements of the project were impressive, but the institutional activities less so. Aden has a well-functioning international airport and the new ports of Salif and Ras Essa now have a good connection to the Yemen main road network, but the results of the institutional strengthening component are to some extent disappointing. On balance, the outcome of the project is rated **moderately satisfactory**.

### *Institutional Development Impact*

4.14 The institutional development impact is rated **modest**. For the road sector, the project did establish a basic capability to carry out road network management at the YBRMF. However, this capability is diminished because the GOY did not give the fund the autonomy originally proposed. Nevertheless, the basic tools for road network maintenance and management were put in place, including a functional Pavement Management System (PMS). The project also provided computer equipment and formal training for GCRB and YBRMF staff. Detailed design for road improvements were also conducted satisfactorily. The Road Sector Review, on the other hand, was poorly written and did not clearly specify or address the underlying problems in the sector. Although there was a participatory approach to road prioritization, it was not ideal and tended to be dominated by government, which resulted in an outcome where there was a “wish list” which did not have real consensus and support from all stakeholders.

4.15 With regard to aviation, the Civil Aviation Strategy and Policy Study was deferred first on the grounds that because of the tender award dispute, the aviation component might be canceled and later, following a change in the Chairman of CAMA, the terms of reference were reviewed and it was concluded that with the additional runway now included, there were insufficient funds to cover the study cost. Since the issue of cost recovery was integral to the study, this also provided an excuse for lack of progress in this area. Although the request for proposals was sent out to short-listed consultants, the tender was never awarded. The procrastination surrounding this study suggests there was neither commitment to, nor enthusiasm for it. At the time of the PPAR mission, the study was still under discussion, but it was indicated that it might now be funded under the Kuwait Fund (Sana’a Airport) Credit.

### ***Sustainability***

4.16 The overall assessment of the sustainability of the project is now **likely**. When both the ICR team visited the Hodeidah-Salif road in September 2002 and the PPAR mission in April 2004, they were impressed by the good quality and condition of the road. Over the next few years it should require little routine maintenance except for the occasional removal of wind-blown sand. The YBRMF is functioning efficiently under a new chairman, having strengthened its capacity and having clarified its relationship with GCRB. A Routine Maintenance Management System and a computerized PMS are in operation and a National Highway and Rural Accessibility Master Plan is being drawn up. This will introduce a new road classification system and a rational methodology for planning, prioritizing, and budgeting. Two concerns still exist, but are being addressed.

4.17 The first issue is that although there has been a recent increase in the allocation for road maintenance, the GOY does not yet dedicate the road user fees collected, in accordance with legislation voted in 2001. It remains sensitive about the political impact of increasing the fuel price, but has agreed to undertake a number of unpopular but necessary measures under the IMF-sponsored structural adjustment arrangements. Providing this is followed through, there should not be a maintenance problem, but even if it is not carried out, the revenue would still be sufficient to maintain the more important roads.

4.18 The second issue concerns the practice of overloading trucks, which can cause considerable damage to road pavements. In March 2004, for example, the Hodeidah-Salif weigh station found that of 6,375 trucks weighed, 32.6 percent were overloaded. This matter is being actively pursued under the Rural Access Road credit. Six old weighbridges have been modernized and six new ones purchased as well as several mobile weighing stations. A remaining matter is to resolve the issue of overloaded oil tankers, for which the existing regulations are waived.

4.19 Sustainability in the civil aviation sector is assured through compliance with the requirements of the International Civil Aviation Organization (ICAO). In terms of their oversight policy, ICAO undertook a safety audit in January 2003 for Yemen's international airports, including Aden. This was followed up in April 2004 with a follow-up mission to ensure compliance with previous recommendations. In future, ICAO is to extend its oversight activities to include airport maintenance. With specific reference to Aden, the PPAR mission noted that Aden International Airport has a good reputation as a well-managed operation and has invested in training key staff. Under the credit from the Kuwait Fund for Sana'a International Airport safeguards are in place to ensure safety is given a high priority. The main area requiring further attention is an improvement in cost recovery and airport usage.

### ***Bank Performance***

4.20 The Bank's performance during project preparation was **satisfactory**. While the institutional component responded to a need articulated by the GOY, it became clear later that not all members of the government shared this vision, which made progress in some areas difficult. Nevertheless, it was a stepping stone to further progress achieved in the subsequent Rural Access Project. During the supervisory stage the Bank staff showed

flexibility and understanding in responding to evolving needs, through reallocation of funds and adaptation to evolving institutional arrangements in the transport sector. More attention could have been given to improving performance indicators.

### ***Borrower Performance***

4.21 Borrower performance is rated **satisfactory**, but marginally so. The concerned implementing agencies participated fully in project preparation and were diligent in satisfying the pre-conditions for Board presentation, negotiations and credit effectiveness. During implementation the rehabilitation works were well managed, although there was a delay in the airport tender due to a lack of understanding of Bank guidelines and procedures. There was also an erosion of commitment to some of the institutional reforms, but this has to be seen against political pressures within the Government that called for a slower pace to reform in general.

## **5. Privatization Support Project (Credit 3298)**

### **Preparation**

5.1 A critical issue for the Government of Yemen was to accelerate economic growth following a period of conflict and the merging of north and south Yemen into one country. One of the legacies of this period was an over-centralized public enterprise sector. The excessive presence of government in some areas had led to inefficient public enterprise monopolies and overregulation that constrained potential private sector investment and employment. The project was intended to help the GOY achieve the privatization targets under the first phase of its privatization program in accordance with the government's policy framework paper of 1997.

5.2 By 1999, the Government had embarked on a comprehensive economic reform program to develop a more free and open economy in which private sector initiative and competitive market forces were to be the main engines of growth. It was expected that the project would help build the institutional capacity to manage and carry out the program, and to help provide the substantial external and local expertise and financial services necessary for implementing the transactions. This was clearly of major relevance to the CAS (see section 2.10). On November 2, 1999, the prime minister of the Republic of Yemen wrote to the president of the World Bank reaffirming his government's commitment to the project and stating that privatization was seen by the Government as integral to its growth strategy to attract greater investment, increase the efficiency of enterprises, and improve the management and utilization of the government's limited budgetary and fiscal resources.

5.3 To strengthen the environment for privatization, the Parliament had passed a Privatization Law earlier in that year which drew heavily on both local and international experience with privatization. The law provided for a Cabinet-level High Committee for Privatization under the chairmanship of the prime minister to oversee the privatization

programs and approve transactions. A Technical Privatization Office (TPO) was also to be established within the office of the prime minister to co-ordinate the implementation of the program and act as a secretariat to the High Committee. The sector ministries would play a hands-on role in the implementation of the transactions and assume responsibility for the results. Clear rules and guidelines and processes were to be drawn up to ensure transparency in all transactions. The project was fully consistent with the CAS objectives, especially concerning the creation of a modern administration that would encourage and attract private sector development to grow out of poverty and dependence on oil. The GOY began privatizing small enterprises as early as 1995. These included tourism and transport enterprises mainly through leasing and agricultural enterprises primarily through restitution to their original owners.

5.4 A number of sector issues were addressed in the appraisal document and measures were built in to the project to help overcome potential difficulties:

- a) *Transparency.* The Privatization Law mandated an institutional structure with a high level of oversight with checks and balances between the central ministries and the implementing ministries. The TPO was to ensure a transparent manual of guidelines and procedures, the recruitment of international advisors, and the creation of a section in the TPO responsible for transparency, including public disclosure of plans and transaction terms.
- b) *Institutional Framework.* A major focus of the project was to be on institutional strengthening. After much debate within government, and as a reflection of Yemeni societal customs, the government considered that the support of the sector ministries would be essential for ensuring client ownership and participation, particularly with respect to large transactions. Thus, the large enterprises included in the project were selected by the relevant ministries themselves.
- c) *Labor Restructuring.* Some of the large enterprise transactions, including the Aden Refinery and the Yemen Drug Company were expected to require labor restructuring. Estimates for the potential number of redundancies ranged from 20,000 to 30,000 workers. The precise labor restructuring needs and the size of the associated severance program for these transactions would be worked out during project implementation. The project did not include a severance package program since this would have been premature, but provision was made to seek donor funding through a future IDA operation. For any immediate needs the Civil Service Fund would fund salaries until a severance program was in place.
- d) *Property Claims.* Legal title for some properties was uncertain following cases of past nationalizations and the GOY was encouraged to develop procedures to ensure clear titles and registration could be provided for investors.
- e) *Local Stock Market.* The development of a local stock market was not regarded as critical, since most enterprises targeted were expected to be privatized through direct sales. However, the project included funding for technical assistance to work on stock market development under the privatization transactions for the Yemen Cement Company and Yemen Drug Company.

5.5 The issuance of a Presidential Decree legally establishing the TPO was a condition of credit effectiveness, since this would be the implementing agency. The TPO was indeed set up and duly confirmed that a chief operating officer, a privatization

program manager, and an accounting and finance manager had been appointed. In addition, most of the sector ministries had already established project steering committees to be chaired by the responsible sector minister. The selection of consultants to help prepare the Aden Refinery Company for privatization was underway and expressions of interest had been invited from consultants for privatization work on the four other large enterprise transactions.

5.6 All this looked very positive and good progress had been achieved in readying the project for implementation. The Credit was approved on November 19, 1999, and the Agreement signed on February 7, 2000. However, it still needed to be ratified by Parliament. The first signs of a change in commitment began in negotiation, when it became clear that there were perceptions by some officials in government that such an amount for technical assistance was too high. The total project cost was estimated at US\$16.0 million, while the IDA Credit was US\$10.9 million, or 68 percent of the total cost. Credit effectiveness dates were extended until over a year had elapsed. In early 2001, following a national election, the GOY informed IDA that it did not expect to be able to muster sufficient votes in parliament to ratify the project given the rising contentiousness over privatization in the existing socio-economic environment. The Yemeni economy had weakened in 2001 due to lower oil prices and inadequate rainfall. Energy costs and inflation had at the same time risen sharply.

5.7 IDA then informed the Government that the project would be allowed to lapse on the terminal date for effectiveness, which was April 30, 2001, but advised that it would be pleased to assist the government in seeking funding for privatization from other donors should it so wish. Since the project did not become effective, the only ratings are for Bank and Borrower performance in preparation.

### **Bank Performance**

5.8 The Bank responded to a direct request from the Borrower to provide assistance to help the government launch and implement its privatization program. Staff performance is rated **satisfactory** in terms of the efforts, resources, and due diligence applied during preparation and negotiation. Several preparatory missions were carried out and advice was given on many aspects regarding international experience of privatization and the best of several ways forward for Yemen. The former prime minister was very supportive of the whole initiative. There was a risk assessment prepared and risk minimization measures were proposed. However, these risks were more related to implementation – it was assumed that the credit would become effective. Clearly, the extent of political dissension after the credit was approved was unforeseen, although it was recognized in the appraisal document that there was potential for political opposition arising from vested interests in some sector ministries and the loss of jobs in some constituencies. While it is understandable that the Bank would have proceeded as long as there was continued support from the key central ministries, the team obviously underestimated the potential opposition from the sector ministries.

## **Borrower Performance**

5.9 Bank assistance was requested against a background of high expectations and it deployed considerable resources on the project. On this basis, the borrower rating is **unsatisfactory**, because the credit was made available but never utilized. The borrower also expended considerable resources of its own and was undoubtedly very committed as far as the central ministries are concerned, but it would appear that some line ministries that had appeared supportive were in fact against the initiative, at least in the short term. In mitigation, events can change rapidly in politics and the government was not going to follow a course that was clearly no longer supportable by Parliament. The enabling legislation and TPO are still in place for when the time is right for a renewed commitment to privatize large enterprises.

## **Recent Developments**

5.10 Following the resistance to privatization the Government could have closed down the TPO, but it did not, and it is still operating. Similarly, the Privatization Law remains on the statute books. Since the cancellation of the project, the Government has continued to maintain the new institutions and to fund salaries and other running costs. A number of small and medium enterprises have since been privatized and some progress is being made with proposals concerning the General Land Transport Corporation and airport and passenger ground handling. The move toward privatization is regarded by some officials interviewed as inevitable, but they believe the initiative pre-2001 was too ambitious and premature, given the state of the economy. The year 2002 was made the “Year of civil service reform” and heralded the commencement of a program of departmental restructuring and downsizing. This initiative will certainly help toward creating the right climate for privatization. Bank support can be directed toward assisting this difficult transition through the Civil Service Modernization Project, while further opportunities to encourage privatization are anticipated through the Yemen Port Cities Development Program. The Directors of the IMF have also commended the Government for restarting the privatization program for small and medium-sized enterprises and encouraged them to move ahead with the privatization of larger public enterprises.<sup>6</sup>

## **6. Public Works II (Credit 3168)**

### **Preparation and Implementation**

6.1 The support for Public Works I, completed on June 30, 2000, showed a demonstrable need for this type of project aimed at poverty alleviation, and a natural consequence was the continuation of the initiative in Public Works II. However, the second project had the advantage that it could be designed to overcome any shortcomings in the earlier project, and to capitalize on the success, experience, and momentum gained.

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6. IMF Public Information Notice, August 12, 2002. “IMF Concludes 2002 Article IV Consultation with the Republic of Yemen”.

6.2 The lessons learned in the first project that were built-into the second were:

- Any projects proposed should have the support of all relevant stakeholders, including the relevant ministry. In the first project there was a problem regarding 16 health units where inadequate provision for operation and maintenance was made on the relevant budgets.
- Awarding contracts to non-performing contractors and consulting firms/individuals would be avoided by introducing qualifying criteria during the bidding process.
- Neglect of environmental aspects would be addressed by hiring an environmental specialist to implement relevant procedures where necessary.

In comparison to the major transport infrastructure projects, however, it is clear that the political environment for community-based public works projects was currently much more favorable, since the public had real ownership.

6.3 Although the quality at entry of Public Works II was not reviewed by the Quality Assurance Group, it may be regarded as high given the successful utilization of experience already gained from the first project. Similarly, performance indicators established in the appraisal document were based on actual data collected under the first project and, as such, were more realistic and capable of being monitored, compared with those used previously. Finally, implementation of small-scale infrastructure projects was customized to optimize local needs and conditions. In accordance with an agreement between the Bank and the GOY, work contracts were kept under US\$200,000. This minimized interventions from special interest groups and provided greater opportunities for the nascent construction industry to develop and generate employment for local unskilled workers. Implementation impetus was disrupted when a number of contractors were affected by a steep increase in the price of reinforcement steel in early 2001. However, the Project Management Unit (PMU) skillfully handled the problem and disruption was minimized.

## **Ratings**

### ***Relevance***

6.4 The relevance of the project is rated **high**. The objective was consistent with the CAS and the GOY First Five Year Plan, both of which focused on social development by supporting social protection measures. It helped cushion the impact of the ESAF measures to stabilize the economy and put it on a growth course. The project was also well aligned with the main pillars of the Poverty Reduction Strategy, namely, developing human resources, improving infrastructure, achieving economic growth, and granting social protection. Moreover, it complemented the Social Fund projects, which aimed to support effective delivery of social services using participative approaches. Public Works II was thus extremely responsive to borrower circumstances and needs.

## *Efficacy*

6.5 The efficacy of the project is rated **high**; the target was to deliver cost-effective small infrastructure to between 800 and 900 subprojects. Despite adverse exchange rate movements leaving fewer dollars available, 827 subprojects were still delivered at an average cost of US\$60,822 compared with US\$60,000 at appraisal. At appraisal, 95,000 person months of employment were anticipated; 94,883 were actually generated. Of these, the appraisal document indicated a target of 54 percent of employment opportunities for unskilled (poorer) workers; the actual figure was 60 percent. The cost per square meter of schools built under the project was US\$139 compared with US\$250 and above for a similar facility built by the Ministry of Education. The number of small-scale contracting firms to be developed set at appraisal was 100. Under the project, 478 contractors were used and 370 self-employed individual consultants. At the time of preparation, the required level of community contribution was set at 5 percent of project cost. The communities, however, were so supportive that 9.6 percent was contributed. Overall, the distribution of the projects by sectors met the wishes expressed by the community as shown in Table 2 below:

**Table 2. Distribution of Public Works II Subprojects by Sectors**

Sector	1999	2000	2001	2002	2003	Total	US\$m	%
Education	151	103	200	61	9	524	26.14	57.3
Health	9	10	22	7	0	48	2.24	4.9
Water	18	8	60	13	3	132	6.51	14.3
Sanitation	9	5	5	0	0	19	1.90	4.2
Roads/Paving	4	11	9	8	2	34	3.60	8.0
Agriculture	1	4	11	5	0	21	1.55	3.4
General/Environment	2	2	4	0	16	24	1.22	2.7
Social	10	3	9	3	0	25	2.48	5.4
Total	204	176	320	97	30	827	45.64	100.0

Source: ICR Public Works II, Report 27440, World Bank, Dec 24, 2003.

An analysis of 980 public works projects completed between October, 2001 and December, 2003 is given in Table 3. It shows the predominance of education and water projects and therefore the preferences of the communities.

**Table 3. Number and Cost of Public Works Subprojects, Oct 2001 – Dec 2003**

Sector	Number	% Total	Cost (US\$)	% Total
Health	84	8.6	4,562,783	6.9
Education	621	63.4	39,156,064	59.4
Water	137	14.0	7,197,089	10.9
Sanitation	19	1.9	3,477,901	5.3
Roads	32	3.3	3,854,571	5.8
Agriculture	59	6.0	5,206,599	7.9
Public Buildings	14	1.4	715,528	1.2
Social	14	1.4	1,696,562	2.6
Total	980	100	65,867,098	100

Source: "The Public Works Project", Dept of Public Works, Yemen, Feb, 2004.

## *Efficiency*

6.6 The efficiency of the project is rated **high**; in the appraisal document it was argued that most of the project benefits (except for water) could not be quantified in the conventional way and were better suited to cost effectiveness analysis. However, the ICR used a better approach through a survey that had been completed for 123 of the subprojects and which measured impact by means of indicators. The water projects generally were expected to have an ERR of at least 20 percent, which is very positive. Key performance indicators for all subproject types before and after completion without exception showed that targets set had been exceeded. For example, the target set for enrollments in basic and secondary education was 10,900 against 26,317 achieved; the target set for increased reservoir capacity was 2,193 cu m against 18,636 achieved. If any criticism is due, it should be that the targets were unduly conservative given the success of Public Works I. The Socioeconomic Impact Assessment Study<sup>7</sup> covered 15 percent of the total number of subprojects, covered 10 governorates, yielding the following results:

### *Improved poverty indicators, especially for women and children.*

- Enrollment rates for children increased by 141 percent (for both basic and secondary education);
- Vaccination against six diseases increased by 113 percent;
- Immunization against hepatitis increased by 20 percent; and
- Childbirth under medical care increased by more than 30 percent.

### *Improved access to basic infrastructure services.*

- Pedestrians using newly built paved roads increased by more than 80 percent;
- Vehicles using newly built paved roads increased by more than 75 percent;
- Number of trainees in social centers increased by 115 percent;
- About 50 percent of households connected to the water supply network; and
- About 370 households connected to the sewage network (in the study area).

6.7 Close to 5,000 communities corresponding to more than 3.1 million people are benefiting today from the basic infrastructure services delivered by the project. Improved access has reduced the time and effort (such as carrying water over long distances) of particularly the women and children. The project management cost as a percentage of overall cost was close to 2.8 percent, which is on the low side compared to international standards.

## *Outcome*

6.8 The outcome of the project is rated **highly satisfactory**. This finding takes into account the relevance, efficacy, and efficiency of the project, plus the fact that the project's success has led to the attraction of US\$52 million to be disbursed as parallel financing; the impact of the project has been outstanding. The assessment mission

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7. Socio-economic Impact Assessment – A Study for Assessing Project Impact on Poverty Reduction; Dr Ali Kasim Ismail Al Baseir, National Economic Consultants, Yemen.

conducted random spot checks on 10 public works projects<sup>8</sup> and interviewed a number of stakeholders; all evidence corroborates the conclusions of the ICR.

### *Institutional Development Impact*

6.9 The institutional development impact is rated **substantial**; the continued development and training of small local contracting and consulting firms and individuals proved to be beneficial and appropriate, and resulted in continued quality improvements. About 90 percent of the study sample confirmed that they have gained considerable experience from working with the project. The PMU's capacity has improved remarkably as it was able to manage the significant increase from US\$30 million under the first project to over US\$100 million under the second project (including the financing made available by other donors). To cope with the expanded workload and meet completion dates, the PMU had to increase its disbursement capacity from an average of US\$1.2 million per month to US\$3.2 million without any increase in staffing. This was achieved through the use of long-term consultants (trained under Public Works I) and the upgrading of the Management Information System.

6.10 The entire system developed for community participation in the project is pivotal to its success. Local communities were involved in subproject selection, preparation, and implementation. Upfront community participation facilitated the accommodation of local needs, reduced the number of issues requiring attention, and promoted strong commitment of ownership. For subprojects in isolated areas, such strong commitment was crucial and served to reduce the overall costs of preparation and implementation.

6.11 A further very significant institutional development impact was the much better co-ordination with the line ministries to ensure adequate budgetary provisions were made. This coordination extended to regular meetings and ensured that there was also coordination with the Social Fund projects. To avoid overloading a community the implementation of both a public works and a social fund project at the same time was generally avoided. The criteria with which to select appropriate projects were also refined, so that, for example, water projects were not pursued where the water supply would not be assured or where environmental harm would result.

6.12 The financial management and computerized accounting system of the project has now been refined and is highly satisfactory. It enables the generation of financial management reports designed for a report-based disbursement system with internal controls in place. The capacity of the staff is strong; they have the knowledge, experience and proper training on the use of the system. Unqualified audit reports indicate well maintained accounting records and files. Earlier problems with cumbersome time-consuming payment and reimbursement procedures experienced under Public Works I have been resolved.

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8. Rehabilitation of Alsamawi School, Sana'a; Family Product Center, Amran; Training Center for Deaf and Dumb, Sana'a; Women's Training Center, Sana'a; Water Supply, Daair-Bani Matar; Stone Paving of streets, Nukum; Alqoods School Extension, Sana'a; Street Paving, Athula City; Health Clinic, Beit Amer, Eyaal Sareeh; Pedestrian footpath Paving, Alsaadi.

### ***Sustainability***

6.13 Sustainability is rated as **likely**. The institutional framework, now proven, is the main basis for this sustainability. Subprojects are not put forward unless there is adequate provision for future maintenance. The deep involvement of the communities is also very significant, as is the high level of skill and commitment from the staff of the PMU and its supporting consultants. Perhaps because of the high profile of the project that has developed, monitoring is unusually good and management information has evolved continuously. However, the highest rating has not been given because the employment generated is largely unsustainable and was intended to provide short-term relief to mitigate the adverse impacts of economic adjustment.

### ***Bank Performance***

6.14 Bank performance, on the other hand, has been upgraded to **highly satisfactory**, supporting the rating given in the ICR Review. This decision was based on the skillful way in which the lessons from the previous project were used as a platform for the excellent performance in this project. The project design capitalized on the outstanding encouragement of strong ownership and commitment, ensuring meaningful beneficiary participation. The high quality at entry, reasonable preparation costs benchmarked against similar projects in the region, together with the attention given to monitoring and evaluation, including impact evaluation assessments, merits the rating given.

### ***Borrower Performance***

6.15 Borrower performance is also rated **highly satisfactory**. This project can be regarded as a case study in how to implement public works projects successfully. The fact that the project attracted so much international interest and donor funding (especially from the United States, the Netherlands, Italy, France, and the Organization of Petroleum Exporting Countries) is testimony to the success that has been evident. Most of this success is attributable to the leadership and drive of the key members of the ministry and especially the dedication of the managers in the PMU. Demand for the projects is overwhelming. Although 827 projects were selected, over 8,000 proposals were put forward.

## **7. Conclusions and Lessons**

7.1 **Linkages.** The two projects involving major infrastructure upgrading have been rated as moderately satisfactory. Generally, the prospects for sustainability have improved with incremental improvements by the Government, supported by the Bank. They have to be evaluated in the context of the unification of north and south Yemen, the subsequent civil war, ongoing tribal conflict in some areas and the significant challenges in transforming the economy. Progress with institutional matters has generally been at a slower pace than progress with physical construction. This reflects the relatively conservative approach to change in Yemeni society and the need to build genuine consensus before moving forward. The purpose of including the privatization support

project was to show in more detail the complexities of achieving transformation in a post conflict environment and illustrates why the softer issues addressed in the transport projects encountered such difficulties. Public Works II on the other hand was a success story and shows what can be achieved with a participative approach at community level even when there may be disagreement about macro policy directions and the pace of structural adjustment. In this project the PPAR mission confirmed the highly satisfactory outcome and recommends that it would make a suitable case study for replication elsewhere.

**7.2 Pace of Reform.** Yemen has been through some difficult times and is emerging from a period of tribal conflict, exogenous shocks to its economy, and a damaging civil war. This backdrop does not make for an easy transition to modern democracy. Change is regarded with suspicion and vested interests ensure that the pace of reform is slowed. It is easy to become impatient with the sometimes slow rate of change and Bank staff clearly often have expectations that are unrealistic or over-ambitious within the timeframe agreed. *The implications of this situation are that when framing objectives for new projects, the goals set should be achievable and measured incrementally against logical milestones and measurable indicators.* In Yemen's case there is steady, but slow progress at macroeconomic level in line with the IMF-supported economic adjustment strategy, and the CAS objectives are gradually being met, though somewhat unevenly. More success is evident at community level where the Government's decentralization efforts are beginning to have impact and the power of community ownership is exemplified in the public works program.

**7.3 Repeating the Same Mistakes.** *A feature of this assessment is that it shows that some of the more common lessons or shortcomings have not always been heeded by project staff or that their resolution is more intractable than anticipated.* Some of the issues that arise are not new. They include inadequate understanding by the borrower of the Bank's procurement procedures, the need for excellent participatory involvement of local communities, the importance of good indicators for monitoring and evaluation, the need to review objectives when there are calls to amend the project description and the need to ensure adequate provision is made for necessary recurrent expenditure such as maintenance. It is easier to attend to these issues for community projects (as in Public Works II) than for large infrastructure projects where the government is seen as the "owner" and where capacity and resources may be severely constrained.

**7.4 The Need for Coordination.** *Lack of coordination and unclear boundaries between ministries and agencies is one reason why some projects are less successful than others.* The success of Public Works II is at least in part because of the very effective management of relationships at all levels and the clearly defined roles of the participants. Thus, inter-ministry and even inter-project coordination have been successfully achieved. The road projects showed a disjuncture between the investment and maintenance programs and government policies. Thus, oil tankers are given a waiver exempting them from axle weight regulations, while the roads are being damaged by overloaded road tankers. Road safety is an area that needs a concerted inter-ministerial effort, but due to a lack of anyone seizing the initiative, the road safety record for Yemen continues to be among the world's worst. This suggests that the Bank should take more time to assist the borrower to devise strategies to improve coordination.

- 7.5 The primary lessons learned from these projects are:
- That in a post conflict, country unification situation such as Yemen's, to avoid fruitless expenditure and wasted resources, additional risk analysis is appropriate to ensure that the Government is *fully committed* to the reforms proposed and the timetable for the reform agenda.
  - *Project objectives* should be framed realistically, taking into account the borrower's ability to achieve stakeholder support for proposed changes.
  - Genuine *community "ownership"* and participation can enhance the likelihood of project success as evidenced by Yemen's Public Works program.
  - These Yemeni projects show that inter-ministerial, agency and stakeholder *coordination* are crucial to project sustainability and that the Bank could be more proactive in helping to improve the general level of coordination.

## Annex A. Basic Data Sheet

### SECOND PUBLIC WORKS PROJECT (CR. 3168-YEM)

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

	<i>Appraisal estimate</i>	<i>Actual or current estimate</i>
Total project costs	60.0	112.2
Loan amount	50.0	46.5
Date physical components completed	12/31/2002	12/31/2002

#### Project Dates

	<i>Original</i>	<i>Actual</i>
Departure of Appraisal Mission	-	10-24/1998
Board approval	-	01/28/1999
Signing	-	02/12/1999
Effectiveness	03/03/1999	03/03/1999
Closing date	06/30/2003	06/30/2003

#### Staff Inputs

	<i>Actual/Latest Estimate</i>
	<i>US\$US\$('000)</i>
Appraisal/Negotiation	133.0
Supervision	257.0
ICR	25.0
Total	415.0

Note: (a) The total excludes US\$8,000 made available through TF during project preparation;

(b) The amount indicated as of negotiations, includes amounts spent during Identification/Preparation.

## Mission Data

	<i>Date (month/year)</i>	<i>No. of persons</i>	<i>Specializations represented</i>	<i>Performance rating</i>	
				<i>Implementation</i>	<i>Development Progress Objective</i>
<b>Appraisal/Negotiation</b>	10/24/1998 11/05/1998				
<b>Supervision</b>	06/02/1999	3	Operations Officer (1); Fin.Mgmt. Spec. (1); Projects Officer (1)	S	S
	11/20/1999	3	TTL(1); Operations Officer (1); Financial Analyst (1)	S	S
	06/10/2000	3	TTL(1); Projects Officer (1); Fin.Mgmt. Spec. (1)	S	S
	12/10/2000	3	Fin. Mgmt. Spec (1); Projects Officer (1); TTL (1)	S	S
	05/07/2001	3	Implementation Spec. (1); Fin. Mgmt. Spec. (1); TTL (1)	S	S
	02/19/2002	5	Fin. Mgmt. Spec. (1); TTL (1) Implem. Spec (1); Economist (1); Environmental Spec. (1)	HS	HS
	11/04/2002	3	TTL(1); Fin.Mgmt Spec. (1); Implementation Spec. (1)	HS	HS
	05/28/2003	3	TTL(1); Fin. Mgmt. Spec. (1); Implementation Spec. (1)	HS	HS
<b>ICR</b>	09/16/2003	3	TTL(1) Sr. Financial Analyst (1) Sr. Economist (1)	HS	

## PRIVATIZATION SUPPORT PROJECT (CR. 3298-YEM)

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

	<i>Appraisal Estimate</i>	<i>Actual or current estimate</i>
Total project cost	16.0	-
Loan amount	10.9	-
Date physical components completed	12/31/2003	04/30/2001

### Project Dates

	<i>Original</i>	<i>Actual</i>
Departure of Appraisal Mission	-	03/12/1999
Board approval	08/03/1999	11/30/1999
Signing	-	02/07/2000
Effectiveness	04/30/2001 (revised)	-
Closing date	12/31/2003	04/30/2001

### Staff Inputs (staff weeks)

	<i>Actual/Latest Estimate</i>	
	<i>N° Staff weeks</i>	<i>US\$US\$('000)</i>
Preappraisal	N/A	N/A
Appraisal	N/A	N/A
Negotiations	N/A	N/A
Supervision	N/A	N/A
Other	N/A	N/A
Total		

### Mission Data

	<i>Date (month/year)</i>	<i>No. of persons</i>	<i>Staff days in field</i>	<i>Specializations represented</i>	<i>Performance rating</i>	<i>Rating trend</i>	<i>Types of problems</i>
Identification/Preparation	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Appraisal							
Supervision							
Completion							

## TRANSPORT REHABILITATION PROJECT (CR. 2819-YEM)

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

	<i>Appraisal estimate</i>	<i>Actual or current estimate</i>
Total project costs	51.8	40.0
Total amount	37.0	30.0
Date physical components completed	-	06/30/2002

### Project Dates

	<i>Original</i>	<i>Actual</i>
Departure of Appraisal Mission	-	03/22/1995
Board approval	-	02/20/1996
Signing	-	03/06/1996
Effectiveness	-	09/11/1996
Closing date	-	03/30/2002

### Staff Inputs *(staff weeks)*

	<i>Actual/Latest Estimate</i>	
	<i>N° Staff weeks</i>	<i>US\$US\$('000)</i>
Identification/Preparation	2.5	16.9
Appraisal/Negotiation	31.1	85.4
Supervision	139.1	48.3
ICR	5.0	20.0
Total	177.7	170.6

## Mission Data

	<i>Date (month/year )</i>	<i>No. of persons</i>	<i>Specializations represented</i>	<i>Performance rating Implementation Development Progress Objective</i>	
<b>Identification/ preparation</b>	11/1995	1	Transport Engineer (1)		
<b>Appraisal/Negotiation</b>	03/1996	2	Sr. Transport Economist (1), Transport Engineer (1)		
	07/1996	1	Transport Engineer (1)		
<b>Supervision</b>	12/1996	3	TM-Transport Economist (1), Highway Engineer (1); Municipal Engineer (1)	S	S
	03/1997	1	Highway Specialist (1)	S	S
	11/1997	2	Engineer/Procurement (1); Soils & Mat. Engineer (1)	S	S
	03/1998	2	Engineer/Procurement (1); Sr. Implement. Specialist (1)	S	S
	07/1998	1	Highway Specialist (1)	S	S
	10/1998	2	Transport Engineer (1); Consultant (1)	S	S
	03/1999	3	Transport Engineer (1); Transport Economist (1); Operations Officer (1)	S	S
	02/2000	3	Transport Engineer (1); Financial Analyst (1); Project Officer (1)	S	S
	10/2000	3	Highway Engineer (1); Financial Analyst (1); Project Officer (1)	S	S
	07/2001	4	Transport Engineer(1); Financial Analyst(1); Implementation Specialist(1); Financial Mgt.(1)	S	S
	07/2001	4	Transport Engineer (1); Financial Analyst(1); Implem Specialist (1); Financial Mgt.(1)	S	S
	11/2001	3	Sr. Highway Engineer/TTL(1), Implemem. Spec.(1); Financial Mgt.Spec.(1)	S	S
	03/2002	3	Sr.Transport Econ.(1); Sr. Transport Planner (1); Sr. Transport Spec. (1)	S	S
<b>ICR</b>	08/2002	1	Sr. Transport & Institutional Specialist		

## MULTI-MODE TRANSPORT PROJECT (CR. 2177-YEM)

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

	<i>Appraisal estimate</i>	<i>Actual or current estimate</i>
Total project costs	43	40.92
Loan amount	30	36.14
Date physical components completed	06/30/1997	06/30/2001

### Project Dates

	<i>Original</i>	<i>Actual</i>
Departure of Appraisal Mission	-	01/17/1990
Board approval	-	09/11/1990
Signing	-	09/12/1990
Effectiveness	-	01/14/1991
Closing date	-	06/30/2001

### Staff Inputs (staff weeks)

	<i>Actual/Latest Estimate</i>	
	<i>N° Staff weeks</i>	<i>US\$US\$('000)</i>
Identification/Preparation	N/A	272.6
Appraisal/Negotiation	N/A	-
Supervision	N/A	526.0
ICR	N/A	-
Total	N/A	798.6

## Mission Data

	<i>Date (month/year)</i>	<i>No. of persons</i>	<i>Specializations represented</i>	<i>Performance rating Implem Develop. Progress Objective</i>	
<b>Identification/ Preparation</b>					
	June 1998	2	Transport Engineer, Port Advisor		
	Sept. 1998	2	Transport Engineers (2)		
	March 1989	2	Transport Engineers (2)		
	June 1989	2	Financial Analyst, Consultant		
<b>Appraisal/Negotiation</b>					
	Febr. 1990	2	Transport Engineer, Economist		
	July 1990	6	Transport Engineer, Economist, Country Officer, Lawyer, Disbursement Officer, Financial Analyst		
<b>Supervision</b>					
	Dec. 1990	1	Transport Engineer	S	S
	Nov. 1991	1	Transport Engineer	S	S
	June 1993	2	Transport Engineers (2)	S	S
	Sept. 1993	6	Transport Engineer, Transport Planner, Bridge Specialist, Hydrologist, Consultants (2)	S	S
	Jan. 1994	2	Transport Engineer, Consultant	S	S
	Nov. 1994	1	Transport engineer	S	S
	April 1995	3	Transport Engineer, Transport Planner, Consultant	S	S
	Nov. 1995	3	Transport Engineer, Consultants(2)	S	S
	March 1996	2	Transport Engineer, Transport Planner	S	S
	July 1996	1	Transport Engineer	S	S
	Sept. 1996	2	Transport Engineer, Transport Planner	S	S
	March 1997	1	Transport Engineer	S	S
	June 1997	1	Transport Engineer	S	S
	Nov. 1997	2	Transport Engineer, Consultant	S	S
	March 1998	2	Transport Engineer, Procurement Specialist	S	S
	July 1998	1	Transport Engineer	S	S
	October 1998	1	Transport Engineer	S	S
	March 1999	3	Transport Engineer, Transport Planner, Operations Officer	S	S
	June 1999	1	Transport Engineer	S	S
	September 1999	2	Transport Engineer, Operations Officer	S	S
	March 2000	2	Transport Engineer, Operations Officer	S	S
	Sept. 2000	1	Transport Engineer	S	S
	Dec. 2000	2	Transport Engineer, Operations Officer	S	S
<b>ICR</b>	June 2001	3	Transport Engineer, Operations Officer, Financial Analyst	S	S

## **Annex B. Borrower Comments**



## Map of Yemen

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