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REPORT NO.
12000

PROJECT COMPLETION REPORT

ZAIRE

**FIRST RAILWAY PROJECT
(CREDIT 902-ZR)**

AND

**SECOND RAILWAY PROJECT
(CREDIT 1475-ZR)**

JUNE 30, 1993

**Infrastructure Operations Division
South-Central and Indian Ocean Department
Africa Regional Office**

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CURRENCY EQUIVALENTS 1/

Currency Unit = Zaire (Z)

April 1979

US\$ 0.65 = Z 1.00

September 22, 1983 - February 24, 1984

US\$ 1.00 = Z 26.93 (29.93)

February 24, 1984

US\$ 1.00 = Z 33.00

January 1992

US\$ 1.00 = Z 80.00

WEIGHTS AND MEASURES

1 meter (m) = 3.28 feet
1 kilometer (km) = 0.62 mile
1 sq kilometer (km²) = 0.386 square miles
1 metric ton (ton) = 2,204 pounds (lbs)

ACRONYMS AND ABBREVIATIONS

AfDB	= African Development Bank
CCCE	= Caisse Centrale de Coopération Economique (France)
CFMK	= Chemin de Fer de Matadi à Kinshasa
CMZ	= Compagnie Maritime Zairoise
GECAMINES	= La Générale des Carrières et des Mines
GEEP	= Groupe d'Etudes, Economie et Planification
KfW	= Kreditanstalt für Wiederaufbau (Germany)
MP	= Ministry of Planning
MPF	= Ministry of Public Enterprises
MPW	= Ministry of Public Works
MTC	= Ministry of Transport and Communication
OR	= Office des Routes
OPECF	= OPEC Fund
ONATRA	= Office National des Transports
PDG	= Président Délégué Général
PIP	= Public Investment Program
RVA	= Régie des Voies Aériennes
RVF	= Régie des Voies Fluviales
RVM	= Régie des Voies Maritimes
SAR	= South African Railways
SDF	= Saudi Fund
SONATRAD	= Société Nationale de Trading
SNCZ	= Société Nationale des Chemins de Fer Zairois
VN	= Voie Nationale

FISCAL YEAR

January 1 - December 31

1/ On September 12, 1983, Zaire introduced a transitional dual exchange rate regime, comprising an official rate and a free market rate shown in parentheses above. The rates were unified on February 24, 1984; thereafter, the rate floated on a weekly basis.

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THE WORLD BANK
Washington, D.C. 20433
U.S.A.

Office of Director-General
Operations Evaluation

June 30, 1993

MEMORANDUM TO THE EXECUTIVE DIRECTORS AND THE PRESIDENT

SUBJECT: Project Completion Report on Zaire
First Railway Project (Credit 902-ZR) and
Second Railway Project (Credit 1475-ZR)

Attached is the "Project Completion Report on Zaire - First Railway Project (Credit 902-ZR) and Second Railway Project (Credit 1475-ZR)" prepared by the Africa Regional Office. Part II is based on Borrower comments.

Credit 902 (US\$20 million, approved April 29, 1979) was closed on June 30, 1986 (four years behind schedule). Credit 1475 (SDR 25.2 million, approved May 15, 1984) was closed on December 31, 1990 (three years behind schedule). Both Credits were fully disbursed.

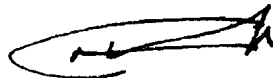
The main objective of the First Project was to restore the railway to an acceptable level of operational efficiency. While the railway's situation deteriorated, partly as a result of external factors, some positive results were obtained with regard to maintenance capacity and staff training.

The Second Project was an emergency rescue operation: prevent further deterioration; strengthen the railway; continue rehabilitation work started under the First Project. In addition, the Second Project was expected to contribute to the successful implementation of the Onatra Modernization Project and of the Matadi-Kinshasa Ports Rehabilitation Projects. None of the objectives of the Second Project were met. External factors and the collapse of the main client of the Railway, the mining parastatal, had severe adverse impact on the project.

The comprehensive PCR notes: "the recent collapse of the railway occurred as a consequence of the public sector management of the enterprise which has given priority to keeping on or hiring new staff when the priority should have been to maintain the enterprise's assets."

Both projects are rated as unsatisfactory, the sustainability of their benefits as unlikely, and their institutional impact as negligible.

An audit is planned.



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PROJECT COMPLETION REPORT
 ZAIRE
 FIRST RAILWAY PROJECT (CREDIT 902-ZR)
 AND
 SECOND RAILWAY PROJECT (CREDIT 1475-ZR)

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PROJECT COMPLETION REPORT

ZAIRE
FIRST RAILWAY PROJECT (CREDIT 902-ZR)
AND
SECOND RAILWAY PROJECT (CREDIT 1475-ZR)

PREFACE

This is the Project Completion Report (PCR) for the Société Nationale des Chemins de Fer Zairois (SNCZ) Railways Projects I and II in Zaire (originally denominated SNCZ Railways Project and Second Railways Project), for which Credit 902-ZR in the amount of US \$ 20.0 million and Credit 1475-ZR in the amount of SDR 25.2 million were approved on April 29, 1979 and on May 15, 1984 respectively. Credit 902-ZR was closed on June 30, 1986, and Credit 1475-ZR closed on December 31, 1990. These dates were four and three years behind schedule.

The Infrastructure Operations Division, South-Central and Indian Ocean Department, of the Africa Regional Office prepared the Preface, Evaluation Summary, Parts I and III. The Borrower issued a PCR for Railways I Project in its own format and formulated remarks on this report, in draft.

The PCR is based, inter alia, on the Staff Appraisal Report, Credit Agreement, supervision reports, correspondence between IDA and the Government, and IDA's internal memoranda.

PROJECT COMPLETION REPORT

ZAIRE
FIRST RAILWAY PROJECT (CREDIT 902-ZR)
AND
SECOND RAILWAY PROJECT (CREDIT 1475-ZR)

EVALUATION SUMMARY

Objectives

1. The major objectives of the projects were to: (i) help restore the efficiency of the SNCZ railways; (ii) rehabilitate and improve track; (iii) improve availability of rolling stock; and (iv) develop management capability in SNCZ.

Implementation Experience

2. After a good start, Railways I was disorganized by the defection of major cofinanciers. Before a relaying project (Railways II) could be organized, the situation of the railway deteriorated rapidly for internal and external reasons. After three years of intense crisis, during which SNCZ was able to survive and to operate the railways, albeit at a less than satisfactory level, project execution sped up in 1987 with the arrival of technical assistance. Both projects were completed well behind schedule. Cost to IDA was about 210 man weeks per project, a high figure.

Results

3. Quantified targets, either operational or financial, were not reached. After project execution, they appear to have been unduly optimistic. The main results can be summarized as follows:

- (i) the railways have survived as an operating entity, even after expatriates, who were still in fairly large number before the project started, have been replaced by nationals;
- (ii) the railways have continued to move minerals from mine to processing plants and output from processing plants to export routes through the Voie Nationale (a rail/river transport system linking the mineral rich Shaba to Matadi, Zaire's only seaport-VN). Shaba continued to have access to essential imports and was not entirely dependent on foreign routes (to East and South Africa);
- (iii) track has been relayed or rehabilitated over and above project objectives and valuable experience has been acquired by SNCZ staff; 300 km of additional track were to be rehabilitated under a follow-up project (Transport Rehabilitation I, Credit 2027-ZR) but the future of this program is now seriously threatened as the credit was suspended;
- (iv) rolling stock and motive power have been rehabilitated also over and above project objectives;
- (v) financial systems have been improved, assets revalued, a costing system established, computerization has been completed and organized, some progress has been made in marketing and commercial activities; and
- (vi) staff has been trained.

Overall Assessment and Sustainability

4. As seen from above, the projects while generating some positive results failed to achieve their financial and managerial objectives. Continuous and costly efforts and investments are necessary to maintain at a reasonable level of efficiency a railways network whose traffic is modest. Most investments are long term, but the long term future of the railways is uncertain since the Shaba to Lobito line in Angola may be reopened and deprive the VN of part of its traffic. The projects are hardly sustainable. Continued support to a VN based railways system is questionable, in particular in light of the economic disruption caused by the unsettled political situation in Zaire in 1991.

5. The recent collapse of SNCZ occurred as a consequence of the public sector management of the enterprise which has given priority to keeping on or hiring new staff when the priority should have been to maintain the enterprise's assets. Operating costs have gradually increased while revenues have decreased. The drop in transport demand is mainly due to the fall-off in Gecamines activities.

Findings and Lessons Learned

6. The experience suggests that:

- (i) country problems and their impact on a major parastatal were underestimated;
- (ii) the railway's capacity to recover rapidly was overestimated;
- (iii) processing was too long for projects which were considered urgent;
- (iv) conditionality was not realistic;
- (v) actual equipment needs of SNCZ were larger than foreseen;
- (vi) the original project was still too ambitious, especially since the number and diversity of cofinanciers exposed it to the defection of one or more sources of financing, a risk which should have been assessed;
- (vii) simpler projects, more quickly processed, without overlap between cofinanciers would have permitted an immediate intervention which in turn would have avoided deterioration of the railways and long term consequences still being felt a decade later;
- (viii) the success of a development project is dependent upon capacity building results; in practice, SNCZ is now entirely run by nationals, an important achievement which the project helped to obtain;
- (ix) staff continuity during supervision is important, and the projects suffered from the involvement of too many and different staff members and Bank consultants;
- (x) the change in reporting policy (Form 590 plus a copy of the aide-memoire) makes it important that progress reports from borrower are carefully formatted and consistent one with each other and with appraisal estimates and PCR data .

PROJECT COMPLETION REPORT

ZAIRE FIRST RAILWAY PROJECT (CREDIT 902-ZR) AND SECOND RAILWAY PROJECT (CREDIT 1475-ZR)

PART I: PROJECT EVALUATION FROM BANK'S PERSPECTIVE

1. Projects Identity

1.01 Projects Data

Project Names	Railways I and II
Credit Numbers	902 and 1475-ZR
Country Department	AF3
Sector	Transport
Subsector	Railways
Government's executing Agency	Société Nationale des Chemins de Fer Zairois (SNCZ)
Follow-up Project	Transport Rehabilitation I (Credit 2027-ZR)

2. Background

Basic Problems

2.01 One of Zaire's most critical transport problems is to provide a reliable means for transport of local minerals in Shaba, between Shaba and the sea, and for transport of imports to Shaba. The only route located in Zaire is the 2,600 km long Voie Nationale (VN) which connects Shaba to the port of Matadi on the Atlantic. It comprises rail transport from Shaba to Ilebo on the Kasai River, then river transport on the Kasai and Zaire Rivers to Kinshasa, followed again by rail transport from Kinshasa to Matadi. Other routes are available through one or more foreign countries to and from Southern Africa (3522 km to Durban) and Eastern Africa (2400 to 2600 km to Dar es Salam). The shortest alternative route (1200 km app.) is through Lobito in Angola, but it has been closed since 1975 as a result of the Angola civil war.

2.02 The various routes provide the necessary transport capacity. However, bottlenecks, delays or closures occur from time to time. The VN carries some 50% of the copper from Shaba. Zaire is committed to its greater use through improving operations of facilities and investments to maintain or increase capacity. The VN is less costly in direct foreign exchange than the foreign routes^{1/}. Its existence ensures that a reasonable degree of competition exists between the different routes and develops a sense of economic unity in a vast and diversified country.

Transport Agencies

2.03 Transport on the VN has been dominated by two large state-owned companies: the Office National des Transports (ONATRA) and the Société Nationale des Chemins de Fer Zairois (SNCZ). ONATRA operates the sea port at Matadi and the river port in Kinshasa, the railway line between Matadi and Kinshasa, river transport and coordinates with SNCZ at the river/rail port of Ilebo.

^{1/} The difference was estimated at 45% when Railways II was appraised. This percentage is highly dependent on the availability of foreign exchange in Zaire.

SNCZ Network

2.04 SNCZ owns all railway lines, including that operated by ONATRA, which does not come in the scope of the projects here reviewed. SNCZ directly operates the following:

- (i) the branch lines (*lignes intersites*) inside Shaba between the ore deposits and concentrate plants, and the lines from the plants to the points where mineral traffic is distributed between the different export routes (mainly Tenke at present as the Lobito line is closed);
- (ii) the Shaba to Ilebo line (the Southern network on the VN);
- (iii) the Tenke-Sakania line, for exports through Zambia to South Africa;
- (iv) the Eastern network, a system of branch lines connected to the VN at Kamina, which serves agricultural traffic and mining export traffic to Tanzania through Kalemie on Lake Tanganyika; and
- (v) the Northern line, an isolated narrow gauge railway, serving agricultural areas in the Haut Zaire and Equateur regions.

SNCZ also operates port services at Kalemie, transport services on Lake Tanganyika, and owns the port of Ilebo on the Kasai River, a transfer point for rail and river transport.

SNCZ Organization

2.05 SNCZ, which results from the nationalization and consolidation of formerly private railways lines, is fully owned by Government. As a utility parastatal, it is, by law, required to be financially self-sufficient, while producing no surplus. Before the closure of the Lobito line, Zambian copper used the SNCZ network in transit to Angola, resulting in sizeable foreign exchange revenue for SNCZ, which financed investments, fuel and spare parts. Loss of that source of revenue after 1975 has been a cause of permanent imbalance in SNCZ finance, with a lasting effect on maintenance and renewal of track and equipment.

Government Objectives

2.06 The main objectives of Government rail transport policy in relation to these railway projects have been:

- (i) to ensure a smooth flow of transport in the mining area of Shaba;
- (ii) to maintain and develop transport on the VN while rehabilitating and improving its facilities;
- (iii) to make transport as inexpensive as possible for users (mining industry and agricultural producers); and
- (iv) to strengthen management of the SNCZ after consolidating in 1973 three different railway networks in the company, and ensure national control through a phased Zairianisation of its staff.

2.07 The Bank Group supported the above government policy, including the increased use of the VN, for the purposes stated above: diversification of evacuation routes, national economic unity and competition. In addition, the investments supported were economically justified. Before financing the projects reviewed here, it financed earlier rail and river projects. The rail projects were for rehabilitation and improvement of the Kinshasa-Matadi line. The river projects were for improvement of river navigation and port facilities and equipment, mainly at Kinshasa. These projects are listed in Part III, Table 1.

3. Project Objectives, Components and Scope

Objectives of Railways I

3.01 When the project was identified and prepared, SNCZ was suffering from lack of maintenance and from the 1977 invasion of Shaba. Eighty percent of its track in the Shaba was more than 45 years old and was badly worn. Derailments were frequent. Many locomotives were out of service because of lack of spare parts. Sixty-five percent of wagons were more than 20 years old and needed repairs or overhaul. The objectives of Railways I (1979) were therefore to:

- (i) help restore the operational efficiency of the railway;
- (ii) rehabilitate and improve track; and
- (iii) improve availability and utilization of locomotives and rolling stock; and
- (iv) develop management capability.

The Bank Group had a special interest in adequate functioning of SNCZ networks at one end of the VN since it financed river transport and railways projects at the other end. The earlier (1975) Project (Cr. 571-ZR) for rehabilitation of the river and Kinshasa-Matadi railway included an understanding that the Southern network of SNCZ, that is the line from Shaba to Ilebo, would operate efficiently and move the Shaba traffic satisfactorily on the VN.

Components of Railways I

3.02 SNCZ had an investment program for 1976-1980, from which project items were selected. Urgent items identified during appraisal were added and the components were as follows:

- (a) renewing and upgrading 210 km of track and ballasting another 285 km; track equipment, including a concrete sleepers plant;
- (b) procurement of one hundred hopper wagons, 9 shunting locomotives and 12 passenger coaches;
- (c) procurement of spare parts for locomotives and wagons;
- (d) procurement of maintenance, telecommunications, data processing, handling and medical equipment, including an oxygen plant;
- (e) extending and improving Ilebo port facilities;
- (f) training of staff in middle and top management; and
- (g) consultant services for studies, including a costing study and a study of low density lines.

Scope of Railways I

3.03 The scope of the project was based on the expected availability of financing rather than on the actual needs of SNCZ, which were larger. As procurement experience later demonstrated, SNCZ's approach (small, isolated bids) had inherent limitations. SNCZ could not absorb a larger project^{2/}. Composition of the project was adequate as regards physical components. Management of SNCZ, still largely by expatriates, was considered "well qualified and competent". The project included training, but no technical assistance. Cost was estimated at US \$ 161.5 million equivalent (66 % foreign exchange). IDA was to finance 19 % only of the foreign exchange cost, making the project sensitive to the defection of any major cofinancier. This happened at an early stage of project execution. Table 5 of Part III gives details of the financing plan for Railways I.

3.04 In 1982, the Arab cofinanciers judged inappropriate a foreign policy decision of the Government of Zaire. They suspended disbursements on their loans, which were financing major items, mainly in track rehabilitation and spare parts. This led to an interruption and a partial collapse of Railways I, which had started slowly in a deteriorating economic, financial and management environment. SNCZ developed an emergency recovery program (the 1982 emergency program) which was supported by a revised Railways I and a new project.

3.05 The revised scope (September 1983) of Railways I was redefined as follows:

- (a) relaying, reballasting and re-sleepering 128.5 km of track (reduction of original program by 40%); track laying/ballasting equipment, (cancellation of concrete sleepers plant);
- (b) spare parts for maintenance and rehabilitation of rolling stock (new locomotives under original project were dropped from project);
- (d) computer and telecommunications equipment;
- (e) training, technical assistance (new item) and studies.

The Ilebo Port extension was dropped, together with the passenger cars and the hopper wagons, which were financed by bilateral aid or directly purchased with assistance from Générale des Carrières et des Mines, the mining concern (GECAMINES). Funds were reallocated for additional workshop, computer and service equipment.

Objectives of Railways II

3.06 Railways II was developed as an emergency operation:

- (i) to continue the rehabilitation started under Railways I ; and
- (ii) to strengthen SNCZ's organization, management, maintenance procedures and staff capability, which proved weaker than initially expected. In fact, the evaluation was now that "SNCZ management had very seriously deteriorated in most areas and at all levels", in sharp contrast with earlier evaluations (see paragraph 2.06 (iv)).

^{2/} Procurement procedures started to improve only with the second project.

Components and Scope of Railways II

3.07 The project consisted of items selected from the SNCZ 1982 emergency program to address its most urgent needs resulting from the interruption of Railways I:

- (a) renewal of 128 km of track ^{3/} and improvement of SNCZ's ability to carry out regular maintenance;
- (b) rehabilitation of 850 wagons, putting in service 200 new wagons and improving maintenance of the entire fleet;
- (c) rehabilitation and maintenance of the locomotive fleet (66 main line and 20 shunting locomotives);
- (d) 70 man-years of technical assistance to management and 55 man-months of studies;
- (e) training and training equipment;
- (f) telecommunications, computer and medical equipment;
- (g) consulting services to Government for a review of the air transport sub-sector; and for strengthening the Groupe d'Etudes Economie et Planification (GEEP) at the Ministry of Transport.

3.08 The scope of Railways II was based on what could be achieved in two years to restore the railways to an acceptable condition. It was more balanced and somewhat more modest than the scope of Railways I, by concentrating on track rehabilitation and repairs to rolling stock which had suffered from inadequate maintenance, largely due to the foreign exchange shortage after the closing of the Lobito line (para 2.01). Still, it hardly covered SNCZ's short term reasonable needs. The project scope was therefore necessary, if not fully adequate. The project included a substantial technical assistance component, thus reflecting an improved knowledge of SNCZ problems. Total cost at 1984 prices was estimated at US\$ 73.3 million, of which 62.6 were foreign exchange. IDA was to finance 48.5 % of the foreign exchange component. While it concentrated on the highest priority items, it participated in the financing of all components, which would permit a better control if any cofinancier dropped out. It also reallocated US\$ 4.0 million from the first credit to the financing of the second project. Table 5 of Part III gives details of the financing plan for Railways II.

4. Project Design and Organization

Institutions: Main Issues

4.01 The first issue, concerning institutions, derived from the regrouping in 1973 of Zaire's railways into a single national railway company (paragraph 2.06). While the Southern network (Shaba, Voie Nationale) was operated at relatively high standards of efficiency and was in a sound financial position, the other networks had been developed as public services to facilitate access to remote agricultural regions. They had to operate at lower standards, carrying smaller volumes of traffic, and were financially weak. It was therefore essential to reinforce SNCZ's management to permit the integration of the different networks into a coherent company. The risk of loss of efficiency and of financial laxity resulting from cross-subsidization between networks, was real

^{3/} This was in addition to the 128.5 track relaying program carried out under the revised Railways I project (paragraph

However, the design of Railways I did not question the existence and viability of one single company operating railway networks in different parts of the country. The design of Railways II benefitted from an improved knowledge of SNCZ and included a study of the low density lines in the North and in the East.

4.02 The second issue was the rapid Zairianisation of managerial and technical staff. However justified financially and politically, replacing of expatriates by equally qualified local staff was carried out too hurriedly and eventually led to lower operational and maintenance standards and performance. Expatriate staffing was reduced from 1,400 before independence to 484 by 1971 and 186 in 1976, of which 50% were in lower supervisory levels, expected to be replaced by local staff within five years. The suggestion during project preparation to place a moratorium on the replacement policy was not followed up at appraisal. Rather, ambitious training programs were included in the project to upgrade local staff and to maintain a sufficient number of qualified personnel at all levels, given the general shortage of engineering and other talents in the country. However, project design did not include a staffing plan for expatriates, to establish their number at an optimal level in specific positions. Altogether, human resources planning and management played a modest role in the design of Railways I. It was based on the premise that the main issue was technical qualification, which could be solved by training. SNCZ's management was considered good and was assumed to remain so. As noted above (paragraph 3.06), the assessment was different in 1982, and Railways II included a technical assistance program. Human resources deployment was given extra attention, a staffing plan for higher management positions was introduced in project design, and the issue of staff motivation and performance was squarely addressed.

4.03 The setting up of one single railway agency (paragraph 4.01) resulted in development of centralized tasks, such as payroll and stores administration. Development of information/computer systems was included in both Railways projects in order to permit better management control and execution of these centralized tasks, even though the Bank seemed to have, from the start, doubts about the feasibility of such a centralization.

Operations: Main Issues

4.04 The main issue was the need to concentrate on the VN which, following the closure of the Lobito line had to evacuate most of Shaba's copper and other minerals exports, expected to increase from 600,000 t in 1979 to 800,000 t in 1984, and to absorb imports. Government made an obligation to GECAMINES to give SNCZ and ONATRA all the traffic that they could handle on the VN before using alternate routes. This program resulted in additional demands on track, communication and signalization systems and rolling stock. Lack of wagons also resulted from the loss of 800 SNCZ wagons held in Angola as a result of the civil war. Design of the projects took this into consideration, by including priority equipment relating to the VN, and by giving priority to track rehabilitation.

Finances: Main Issues

4.05 Financially, the closure of the Lobito line, which was earning some US\$ 1.0 million equivalent each month (one fourth of SNCZ revenue), resulted in a severe shortage of foreign exchange because profitable Zambian transit traffic was diverted to other routes. Both projects were therefore designed to concentrate on track rehabilitation and the procurement of spare parts and equipment for maintenance, which SNCZ could no longer finance from its foreign exchange revenue.

Conceptual Issues: Priority to Voie Nationale

4.06 Conceptually, the foundations of the projects were clear and well in line with earlier IDA-financed transport projects, which had aimed at reinforcing the other end of the VN (river operations and Matadi-Kinshasa railway). Strict adherence to Government's commitment to the

raised objections in the Bank. Advice was given to carefully evaluate the advantages and disadvantages of the different routes, mainly foreign, before making all the investments needed to make the Voie Nationale the only route for evacuation of Zairian copper. These concerns were not justified, because the appraisal teams were cautious in evaluating SNCZ's capacity to accommodate the transport needs of the copper industry. Neither project ever envisaged that mineral exports would use only the VN. The appraisal of Railways I projected that the share of these exports through the VN would increase from 40% in 1977 to 47% in 1983, to reach 50% in 1987 and 55% in 1990. In 1983, the share of the VN was 42%. Again, the appraisal of Railways II projected a modest increase to 54% by 1990. While these projections proved optimistic, they nevertheless reflected caution on the future of the VN, despite Government's official policy.

Preparation and Processing: Railways I

Appraisal

4.07 Railways I was carefully prepared. It was identified in November 1975; a detailed report was issued by April 26, 1976. In parallel the Bank discussed with Government the broad issues regarding VN and participated in a local working group on the subject, while Bank staff prepared the details of the project with SNCZ. Government was late in requesting financing. The request came as late as July 1977. Appraisal took place in November/December 1977 and the Appraisal Report was issued on April 25, 1979. However, between 1975 and 1979, SNCZ's finance, operations and management deteriorated, which the Appraisal Report did not reflect.

Effectiveness

4.08 Cross-effectiveness clauses with cofinanciers and slow processing in Zaire delayed the effectiveness of the loans of the cofinanciers until May 1980. The remaining effectiveness condition, requested by IDA - the establishment of a Tariff Commission - and the belated issuance by Zaire of the necessary legal opinions, delayed effectiveness for eight additional months. The Credit Agreement was signed on June 14, 1979, 20 months after appraisal, and the Credit was effective on January 27, 1981, 38 months after appraisal. Altogether, the benefits of good project preparation were jeopardized by excessive duration of project processing, multiple effectiveness conditions and cross-conditions, and the borrower's own delays in satisfying effectiveness conditions. The median duration of the effectiveness period for all loans related to the projects was 22 months.

Railways II

4.09 In May 1982, the Saudi Development Fund (SDF) and the OPEC Fund (OPECF) stopped disbursing on Railways I. Preparation of Railways II started in December 1982 and the project was appraised in May/June 1983. It was approved by the Board in April 1984, on schedule, was signed on August 7, 1984 and the credit was effective on June 5, 1985, 24 months after appraisal. Effectiveness was delayed by the need to complete cofinancing arrangements and execute a subsidiary credit agreement. Despite an active preparation, much had still to be done after appraisal to establish lists of spare parts for rehabilitation and maintenance, which were the most important items in the project. The median duration of the effectiveness period for all loans financing the project was reduced to 8 months, much shorter than for Railways I.

5. Project Implementation

Implementation Schedule: Railways I

5.01 The project was originally scheduled to be completed by December 31, 1982, after a period of four years of implementation after negotiations. It was completed on December 31, 1987, after nine years. Delays in effectiveness, interruptions, rebidding ^{4/} after OPECF and SDF canceled their participation, etc may have delayed it by three years. The original schedule was therefore optimistic. Part III, Table 2 gives the original and actual project timetables.

Progress of Implementation

5.02 SNCZ used the long period before effectiveness to process procurement documents, prepare training programs, specifications, etc. Orders were placed quickly after effectiveness. Six months after effectiveness, 50% of IDA funds had been committed. But the long time that had elapsed between preparation/appraisal and implementation made the following original assumptions less and less relevant:

(a) Assumptions on Management

SNCZ management, originally sound, deteriorated rapidly. From 1976 to 1986, there were five different general managers. Some did not perform adequately. None could, over such short periods, demonstrate his ability and capacity. The need for additional top level expatriates appeared. Political and ethnic tensions, and the change of corporate culture resulting from Zairianization, had been underestimated. At an early stage of supervision, Bank staff indicated "a deeper need to reorganize SNCZ's overall organization" and recommended a management study. However useful, this was probably insufficient. At that stage, the Bank had not yet identified the basic shortcomings of parastatals in Zaire and of government policy towards these parastatals, which were at the root of the worsening management situation at SNCZ.

(b) Assumptions on Procurement

After a good start (all project preparation had been conducted by SNCZ without recourse to consultants), procurement at SNCZ proved slow and confused. When, in 1984, the Government established the Société Nationale de Trading (SONATRAD), as the central procurement agency for parastatals, delays increased. Procurement of essential items under the rules of other co-financiers was also slow and cumbersome.

(c) Assumptions on Scope of Project

Execution necessitated an adjustment of the project to new realities. For example:

- (i) the information systems component had not actually been appraised, and had to be after the project started, in 1982, with the useful help of IBRD's computing department;
- (ii) the spare parts/small equipment issue became acute because of cash flow problems (see (e) below);
- (iii) track and right of way required more equipment than originally appraised;

^{4/} Some of the conditions applicable to Saudi Fund and OPEC Fund loans were not applicable to other bilateral or international lending agencies.

- (iv) the limitations at Ilebo port, the transfer point between rail and river traffic, were more severe than foreseen. However, these difficulties, which were not exceptional given the magnitude of this first SNCZ project, were being overcome in 1982.

(d) Assumptions on Cofinancing

When the OPECF and Saudi Fund, in May 1982, canceled their participation, and stopped disbursements, even on items ordered and under construction, the weakness of project design appeared: these cofinanciers were present in five components out of seven, for 40% of foreign currency financing, and their defection paralysed the project, particularly track renewal, the most important item. SNCZ made good on some US\$ 10.5 millions (out of a financing gap of US\$ 42.0 million) through self-financing and using the balance of earlier loans. The risks of multiple cofinancing and dispersion of items between cofinanciers had been underestimated. The risk that a political Government decision might trigger a negative reaction by cofinanciers had not been assessed.

(e) Assumptions on the Macroeconomic Situation

Both projects rested on the assumption that Zaire's economic situation, which had been deteriorating since 1975 (deterioration of terms of trade, burden of external debt, scarcity of foreign exchange, poor economic management, etc) would recover "at best with slow growth" during project execution. Actually, the situation continued to deteriorate, leading to the need for a strong stabilization program which started in 1983, followed by structural adjustment in 1986. Adjustment measures however proved insufficient and the budget and the exchange rate came under increased pressure. Monetary expansion put pressure on domestic prices and on the exchange rate; and the local currency, the Zaire, depreciated rapidly. All macroeconomic assumptions proved ill-founded.

(f) Assumptions on SNCZ Finances

SNCZ's own contribution to the project was also jeopardized by the rapid deterioration of its financial situation. Traffic was lower than expected, if only because the project had been delayed, limiting the capacity of the network. The government did not authorize tariff adjustments on general cargo (specially on agricultural products) and the main user of the railway, GECAMINES, did not agree on tariff increases for copper transport. Minerals traffic, both between mines and processing plants and export, operated at a loss as early as 1982. In addition, the increased foreign exchange shortage in the country deprived SNCZ from foreign exchange allocations by Government contrary to what was stipulated in Credit Agreement 902-ZR. Spare parts could not be purchased and salaries of expatriates were not paid on schedule. Credit proceeds had to be reallocated to the purchase of spare parts, to the detriment of the financing of other items.

Implementation Schedule: Railways II

5.03 Railways I was scheduled to be completed by end 1982. This deadline was soon made obsolete by the delay in effectiveness and later by the withdrawal of major cofinanciers. Railways II, which followed Railways I and was combined with it for the purpose of execution, was scheduled to be completed by June 30, 1987, after three years of implementation following negotiations. It was completed by the end of 1990, after six years. The implementation schedule agreed upon at negotiations (March 1984) was irrelevant. Some of the actions planned for 1984 did not take place before 1985. Preparation work in SNCZ continued after appraisal. The starting year of the project was in fact 1987, and its implementation should be assessed accordingly.

Progress in Implementation

5.04 Two periods with very different implementation paces can be identified:

(a) 1984-1987

Implementation was delayed by SNCZ's management difficulties, and its staffing and financial crisis, compounded by internal socio-political problems in the company itself. Again, three successive general managers were appointed over three years, during which SNCZ slowly elaborated a five-year investment and rehabilitation plan, to be used as a basis for future operations. The establishment in 1984 of the Société Nationale de Trading (SONATRAD), with jurisdiction over all procurement by parastatals, also delayed execution. Despite early approval by IDA, before effectiveness, of lists of spare parts for procurement, the procurement program fell behind.

(b) 1987-1991

The project actually started in early 1987, three years after negotiations, under a new general manager and with technical assistance reinforcement. The implementation schedule was revised and, by end 1988, 94% of funds had been committed. Wagon rehabilitation was ahead of schedule. Locomotive rehabilitation and telecommunications waited for delivery of spare parts and were completed at the end of the project. The training component was implemented smoothly and has been in general ahead of schedule. It would have been completed by end 1989, if cash flow problems at SNCZ, which delayed execution, had been solved.

6. Projects Costs

Railways I

6.01 Original cost estimates were US \$ 161.5 million. Items were canceled and only 54% of the original track relaying program was completed. The total cost of the project, as completed, is estimated at US \$ 102.4 million equivalent, of which 63.3 million in foreign exchange. Cost overrun would therefore be 3.5%, attributable to an underestimation of the cost of track relaying. Part III, Section 5 includes a tabulated comparison of appraisal estimates, actual costs and actual financing.

Railways II

6.02 Original cost estimates were US\$ 73.3 million, of which 62.6 million were in foreign exchange, to be financed from new loans, including IDA Credit 1475-ZR, and the balance of earlier loans. Final foreign exchange costs are estimated at US\$ 100.9 million, of which US\$ 88.8 million came from new loans, from self-financing, and 12.1 million from earlier loans. Table 5 of Part III gives details of project costs. The rapid devaluation of the Zaire during project execution makes the calculation of local currency costs impossible.

Disbursements

6.03 Actual disbursements from the Credits, compared to appraisal estimates are given in Part III, Table 3. Disbursements took place over five years and nine months for Credit 902-ZR and over five years for Credit 1475-ZR. Appraisal estimates were three years in each case. The Zaire disbursement profile is six years. Had it not been for the projects' belated start, the disbursement profile would have been normal. The appraisal estimates were not realistic.

Credit Allocation

6.04 The original and revised allocations for both Credits are shown in Part III, Table 5. Credit 902-ZR was formally reallocated in 1986. Credit 1475-ZR was reallocated in 1987, 1988, 1989 and 1990. Main categories affected were II (Equipment) and III (Consulting Services) and reflected increased costs.

7. Project Results

Project Objectives

7.01 The objective of Railways I and II was to restore the railways to an acceptable level of operational efficiency to permit it to carry some 50% of minerals exports through the Voie Nationale in 1987. SNCZ's share declined to 36% in 1983, then increased as the two projects were being implemented. In 1985, 1986 and 1987, SNCZ carried 39%, 46% and 50% of exports respectively through that route, which can reasonably be credited to the project. Detailed operational targets were agreed during negotiations. These and actual results are detailed in Part III, Table 4. In 1987, at project completion, targets had not been reached and could not have been, for the following reasons:

- (i) the first project, considered as a minimum, became disorganized when 40% of its financing vanished;
- (ii) delays in effectiveness and implementation led to a compounded deterioration of track, equipment and facilities;
- (iii) SNCZ never obtained the necessary allocations of foreign exchange, outside the project, for its recurring expenses;
- (iv) traffic during 1981-1987 increased but was only 62% of traffic projected at appraisal;
- (v) tariffs were not increased when needed, resulting in severe cash flow problems, and
- (vi) staff productivity, discipline and supervision declined steadily.

Achievements

7.02 The projects were instrumental in maintaining SNCZ performance at a level near the original one, which can be seen, under these circumstances, as an achievement in itself: main line diesel locomotive availability was 48% in 1979, and 46% in 1987; electric locomotives availability went from 79% to 78%; wagon availability was 76% in 1981 and 71% in 1987, etc. In the absolute, none of these figures are satisfactory. But they reflect the survival of SNCZ, which the project permitted. Project impact is also reflected in the reduction of the number of derailments where track had been relaid: 21 in 1983, 24 in 1984, 6 and 4 respectively in 1986 and 1987 after track relaying was completed.

Performance

7.03 In 1984, new operational targets were assigned to SNCZ under Railways II. Some were stricter than those assigned in 1979, which was optimistic given the experience gained and difficulties which had led to a rescue operation. Traffic projections were revised downward. More realistic objectives were also later assigned in the 1988 contract-program, associated with the Transport Rehabilitation I Project (Credit 2027-ZR). Because of delays in starting Railways II

1989/1990 should be selected as the last year of the project, rather than 1987^{5/}. Traffic from 1985 to 1989 was roughly 90% of appraisal projections, with a sharp decline to 78% of projections in 1990. Total mineral exports were projected to reach 650,000 t, in 1986, of which SNCZ should have carried 350,000 t. That year, SNCZ was offered 327,000 t and carried 309,000, or 94%. Basically, the operational targets assigned for 1987 were achieved at an 80% level in 1990^{6/}. In 1989, staff productivity and transit time improved (25 days from Shaba to the sea in 1988, 23.5 in 1989, 24.0 in 1990). So did average wagon loads. The number of wagons leased from South African Railways (SAR) decreased and locomotive utilization increased, etc, but at the cost of an excessive utilization of overaged equipment and increasing operating costs. Despite overhauls, locomotive availability declined. Progress regarding derailment reduction was impressive. In the section being renewed under the project, there were 15 derailments in 1987, 28 in 1988, 3 in 1989 and 2 in 1990.

Mineral Traffic

7.04 In 1990, SNCZ shipped only 178,000 t, or 60% of mineral exports through the VN compared with an objective of 55%. GECAMINES had a bad year and could not offer much more. Exports dropped overall to 380,000 t because production met difficulties, equipment was missing, a major mine collapsed and a three-week strike paralyzed the company. Clearly, SNCZ's performance is closely linked to that of GECAMINES. If GECAMINES does not offer cargo, SNCZ is left with under-utilized investments and staff, at no cost to the defaulting GECAMINES. While the issue is at present academic, given SNCZ's own performance, it is worth mentioning (see paragraph 9.05).

Rate of Return

7.05 The economic rates of return estimated for Railways I and II at appraisal were 20%^{7/} and 37% respectively. The appraisal of Railways I concentrated on benefits derived from improvement in maintenance and performance on each component, while the appraisal for Railways II was based on savings from avoided use of road transport and use of Southern Africa and Eastern Africa routes for exports and imports. Data is missing for a recalculation of a rate of return^{7/} on the project. A recalculation, based on the model adopted for the appraisal shows hardly any positive return. It is based on the difference in costs of the different routes to Shaba - South Africa, East Africa and Voie Nationale. The former routes are nominally cheaper by 3% to 10%, but shadow pricing for foreign exchange makes them 50% more expensive.

7.06 In fact, the methodology used during appraisal is open to question. The main SNCZ Southern (Shaba) network is actually made up of two sub-networks, which need to be considered separately. A first sub-network of 1014 km serves the mines and the plants and gives access to the export routes (VN, Lobito and Zambia/South Africa). A second sub-network of 631 km is part of the VN itself from the Shaba to Ilebo. On the first sub-network, the economic return is high because without a railway, transport of minerals would be by road, at a cost estimated at twice that of transport by rail. On the other hand, the second sub-network is in competition with both the South and East Africa routes which, as noted above, are nominally cheaper, but more expensive in foreign

^{5/} In addition, not all locomotives had been rehabilitated by the end of 1989. However, the Transport Rehabilitation I Project of 1989 may have impacted on SNCZ's 1990 performance. The cut-off point between Railways II and Transport Rehabilitation I cannot be exactly located.

^{6/} Comparison is difficult because, starting in 1989, SNCZ adopted new objectives defined in the contract-program. Objectives stipulated in 1475-ZR were no longer adhered to.

^{7/} For example, the actual disbursement profile under the other cofinanciers loans is not known. Project costs in local currency are not separately identified in SNCZ accounts. In any case, the lack of data on the timing of expenditure within the situation of rapid depreciation of the Zaire in relation with foreign currencies would not make it possible to convert ex post local currency expenses into dollars.

exchange. If the necessary information could have been obtained, the economic calculation should have been conducted on each of the sub-networks, to permit an accurate judgment on the economic justification of the project. But again, in view of the collapse of SNCZ, this data could not be gathered, despite several requests made by IDA.

Physical Execution of Railways I

7.07 Tracks were relayed and reballasted on 109km (85% of planned and redesigned project), involving 244 km of rails and 305,000 sleepers. Altogether, physical project execution may have been 65% of the original project, with some items entirely completed (training, computerization), some partially completed by SNCZ on its own, despite cancellation and shortage of foreign exchange (port works at Ilebo), and some cancelled altogether (shunting locomotives) with consequences still being felt at present. Variations from the original project were due mainly to the long gestation period and to the cancellation of the Arab loans. Training reached 79 staff for 317 man/months, against 99 and 891 planned, because many of the staff to be trained were also the most qualified and necessary for operations. The training program was, in that respect, too ambitious. It nevertheless appears to have been successful in developing technical capacity in SNCZ.

Physical Execution of Railways II

7.08 In executing this project, SNCZ displayed initiative and imagination: old sleepers from another railway were used for track rehabilitation, 40 second hand locomotives were bought from South Africa for the low price of US\$ 1.35 million to keep traffic going during project execution and overhaul of SNCZ locomotives, direct help was obtained from GECAMINES, etc. By using rails and sleepers left over from an earlier bilateral financing allocation, SNCZ was able to relay 176 km completely and to conduct on-the-spot replacements on an additional 119 km (sleepers and rails in curves). All 30 locomotives overhauls were completed. Some 1130 wagons were repaired (800 in program). Other physical items of the project were adequately completed. Technical advisers performed well in:

- (i) establishing ground rules for maintenance and operations;
- (ii) the physical execution of the project; and in
- (iii) improving accounting and auditing systems.

Financial Performance

7.09 From 1974 to 1978, before appraisal of Railways I, the SNCZ operating ratio was as high as 1.49. In five years, SNCZ accumulated losses of Zaire 72.0 million (US\$ 110 million) for a total revenue of Zaire 340 million (US\$ 523 million). SNCZ did not even cover depreciation of assets. The 1979 appraisal unrealistically projected a quick financial recovery from 1980 onwards, with a comfortable operating ratio of 0.85 from 1983. The assumption was that tariffs would be readjusted with inflation and anti-inflationary measures enforced frequently enough to compensate for the impact of inflation on costs. In fact, except for a small surplus in 1982, SNCZ continued to incur major losses through 1984 (Zaire 194 million or US\$ 6.5 million against revenue of Zaire 2998 million or US\$ 100 million). Nevertheless, the 1984 appraisal of Railways II projected financial recovery for 1987, with an operating ratio of 0.82 that year. Assumptions were in accordance with Bank projections for inflation. Tariff adjustments and a 3% financial rate of return were covenanted.

Causes of Poor Financial Performance

7.10 During the execution of both projects, SNCZ's financial performance was disappointing. Projected revenues were wiped out by large deficits. While the working ratio was positive, the operating ratio was 1.10 in 1986 and 1.02 in 1989 (see Part III, Table 6). Most of the causes for such poor performance were related to the deteriorating macroeconomic conditions in Zaire :

- (i) high cost of maintenance;
- (ii) cost of leasing SAR wagons;
- (iii) the impact of galloping inflation on local costs;
- (iv) the rapid and catastrophic depreciation of the exchange rate, increasing financial costs on foreign currency borrowing and costs of imported materials;
- (v) limited tariff increases, granted after long delays, and at times not accepted by the main user of the railway, GECAMINES;
- (vi) the inability to obtain foreign exchange allocations, which forced SNCZ to deposit in banks the amounts in Zaire corresponding to the amounts of its letters of credit, thus immobilizing large amounts at no interest;
- (vii) the deficits of the Eastern and Northern networks; and
- (viii) the structural staff costs, inflated by staff benefits such as hospitals, schools, food allocations, etc.

8. Project Sustainability

8.01 The projects permitted the survival of SNCZ, reorganized some of its maintenance activities, extended its data processing capacity, and trained its staff. They helped to keep the company alive, but did not stop its decline. Traffic declined from 1.35 million passengers and 4.0 million tons merchandise in 1979 to 626,000 passengers and 3.4 million tons merchandise in 1990. Average speed of trains fell during the same period from 19.6 to 14.0 km-h. However, many of the past and present difficulties of SNCZ are closely related to the state of affairs in the country in general. For the projects to have been sustainable, in addition to the return to normal economic and social conditions in the country, it would have been necessary that:

- (i) track and rolling stock rehabilitation be continued beyond the scope of the on-going projects, financed by external sources;
 - (ii) SNCZ operate the railways professionally at optimal cost, with the objective of increasing its share of traffic, rehabilitating its finance and later derive a surplus;
 - (iii) tariffs be adjusted as needed;
 - (iv) staff recruited by or assigned to the company remain competent, active and honest;
 - (v) GECAMINES offer the traffic to which investments were geared; and
 - (vi) the company obtain the foreign exchange necessary to its operations.
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Based on experience, the type of public utility management which has been prevalent at SNCZ over the last two decades has not permitted these conditions to be met. Fundamental changes are necessary in the approach to railways management by the sole shareholder, the Government of Zaire.

8.02 The economic analysis, however simplified, seems to indicate that under normal circumstances (unlimited access to foreign exchange and the relatively poor condition of the VN), it would be more economical for Shaba traffic to use other routes rather than the VN. A considerable amount of money has been invested since the country gained independence in 1960 but the VN would become competitive only after, and if, the whole scope of the Transport Rehabilitation Project could have been implemented. The question that must be asked, under the present political turmoil, is whether the effort on the VN is worth continuing, especially after the expected reopening of the Lobito route which might make the VN even less competitive.

8.03 IDA's decision has been to support the government's policy of developing its railway-equipped VN, as indicated in paragraph 2.06, because it considered it a reasonable, and economically sound, national choice. The VN has, more or less, been kept open by the projects. This is already an achievement, even if SNCZ's management could not be strengthened as intended. Nevertheless, the real issue is whether it is a matter of concern to the economy of the country that, despite its national importance, the Voie Nationale would be better served by a road and air network than by a railway system.

9. Bank's Performance

Appraisal

9.01 Scrutiny of Railways I appraisal in the Bank was long and esoteric at times. Efforts necessary to satisfy all levels of review were not commensurate with the final result or with the importance of the issues involved. Technical issues were raised by non-technicians, which resulted in delays and in frustration. For example, an evaluation of the political risks associated with multiple cofinancing would have been more relevant from Programs staff than objections to the selection of types of sleepers. More attention should have been given to what now appears as extremely optimistic financial projections. The establishment of a Tariff Commission delayed effectiveness unnecessarily. This commission proved to be a ghost institution and its establishment was an institutional failure. Processing of Railways II was smoother. However, three years were necessary to effectively launch a project recognized as urgent from the start.

Legal Issues

9.02 The Project Agreement stipulated a rate of return of 3% on fixed assets. As mentioned in paragraph 2.05, Zaire's basic legislation stipulates that utilities such as SNCZ are not supposed to generate surpluses and to obtain a positive rate of return on their assets. They are only expected to cover costs. The legal issue of possible conflict between national law and the loan agreement was not raised by Zaire and IDA did not request, or even suggest, a change in Zaire's legislation. A legal appraisal concomitant with the economic, financial and other appraisals would have made that clear. However, given SNCZ deficits (paragraph 5.05), this question never became an issue and, if so, the Association would have been able to rely on the provision of the General Conditions stating that the obligation of the Borrower under the Credit Agreement are valid, notwithstanding any of its laws of any state.

Reporting by Borrower

9.03 IDA's supervision of reporting by the borrower seems to have been uneven, without a permanent format which would have allowed IDA to follow project execution easily (such a format was still under study three years after appraisal of Railways II). The borrower indicated to the evaluation mission that the reporting requirements of successive staff involved in supervision differed from one staff member to another.

Staff Input

9.04 On average, 423 staff weeks, or about 26.75 per year, were spent on the projects. Table 8 of Part III gives details.

Supervision

9.05 There were regular supervision missions twice a year. In addition, other missions visited SNCZ as frequently as possible. Staff continuity was ensured as much as possible, which was difficult, considering the duration of project execution and the Bank reorganization in 1987. Still, it was probably not optimal. All but one name of staff participating in preparation and appraisal of Railways I disappear from the list of staff involved in supervision of the project. The coverage and thoroughness of supervision reports suffered from discontinuity. While some include all information necessary, others are extremely short, or their information is not consistent with that given in earlier reports. Continuity and quality of supervision were far better after 1986, with a positive impact on project execution, project reporting and preparation of Transport Rehabilitation I, not reviewed here, which was a follow-up project. A Bank training/manpower specialist participated in several supervision missions and proved most useful. Lastly, the Bank devoted a considerable effort to attracting cofinanciers, maintaining contact with them, explaining the Bank's approach and settling differences.

9.06 The major weak point in Bank performance may have been in overall country strategy and evaluation. Four points are specially significant :

(a) Relations Between SNCZ and the Mining Industry

Given earlier experience on railways projects in general, and in projects in Zaire especially, the strategy was optimistic and did not explore a number of important issues. When a mining industry plays a major role in the traffic of a railway, as was the case, it needs to be closely associated with the project from the start and have special arrangements and contracts with the railway, within the framework of the project. There have been cases where IDA requested such agreements (e.g. the 1969 Boké Bauxite Project in Guinea, a captive project). It was not done here and, when GECAMINES, which was in fact to be the first direct beneficiary of the project, denied tariff increases, not much could be done. Yet GECAMINES and SNCZ are in close daily operational contact, and GECAMINES has financed railways equipment during the period of execution of the projects, when there was no other solution for ensuring the continuity of transport of its mineral production. It nevertheless remains that the need for a contractual relationship between GECAMINES and SNCZ initially escaped IDA's attention.

(b) Issue of Zairianisation

IDA underestimated the issue of accelerated Zairianisation and staffing plans, which was politically a difficult one, but probably central to project performance.

(c) Procurement

The Association was also slow in reacting to less than optimal procurement practices, when too many small contracts delayed project execution.

(d) Country and Borrower's Capacity

The capacity of both the country and the executing agency, to execute these large projects, was overestimated. Altogether expectations were far too great. Judging from their objectives, the projects appear as failures. Judging from what could really be achieved, and was achieved, and not from unreasonable expectations the assessment is different.

10. Borrower Performance

10.01 The Government was slow in satisfying effectiveness conditions and proved generally unable to implement the financial stipulations included in the Credit Agreements, especially with regard to tariff adjustments. SONATRAD, the Government agency responsible for procurement, was slow in processing contracts. There seems to have been a disappointing lack of urgency regarding project execution and project objectives on the Government side. The major issue of Zairianization, for example, was handled much more from a political angle than with the objective of reaching maximum technical and operational efficiency at SNCZ.

10.02 The performance of SNCZ was uneven. It was one of successive management teams who had considerable difficulties in adjusting to rapid Zairianisation, to hyper centralization, to deteriorating salaries, to low morale and motivation of staff, to the shortage of spares and equipment, to rampant inflation, and to a difficult political and ethnic environment. On specific issues, SNCZ failed to perform. It was unable, for example, to draw up a financial recovery plan when necessary and when requested to do so. Maintenance standards and work discipline remained low. General managers appointed from outside (either expatriates or nationals) had difficulty in monitoring an entrenched railway bureaucracy. Marketing remained weak. Minerals traffic has remained for too long captive of SNCZ (it is no longer) and SNCZ has not made much effort to attract other traffic. With the impact of technical assistance from mid-1987, the quality of information provided by SNCZ was greatly improved. Disbursements and procurement records improved considerably. The fact remains that SNCZ managed, despite all its weaknesses, to ensure the survival of the railway during the execution of these two projects under difficult macroeconomic conditions. This demonstrates some degree of performance, for which its management, and the technical assistants seconded to it, should be credited.

11. Project Relationships

11.01 Relations between the IDA and the borrower were very good, despite the difficulties of implementation. Each IDA supervision mission was handed supervision files well prepared by the borrower, though not always in the prescribed format. The tone of correspondence was excellent. Representatives from the borrower visited the Bank from time to time to discuss project execution and the future. Relationships between consultants and borrowers were also good, and there were no major problems with contractors.

12. Consulting Services

12.01 The performance of consultants on studies was generally satisfactory, except for the management organization study which critical findings and recommendations were issued in an undiplomatic manner. Also some consultants had difficulty in adjusting to local conditions. Two teams of technical advisers were in place from September 1987 and considerably helped project execution and institution building. It is clear, however, that it is difficult to find, at present, top expatriate railways managers to serve in technical assistance positions and the experience in these projects with some expatriate general managers and an assistant general manager was disappointing. Recruitment of mixed teams in different countries also has its shortcomings, if only because their approaches to railways management and operations are different.

13. Project Documentation and Data

13.01 Basic project documentation was standard for this type of project and was carefully established. In essence, the changes in events made them outdated rapidly. The main problem seems to have been one of reporting. Reports from SNCZ have been abundant, especially under 1475-ZR, when technical assistants were called in to support project implementation. However, no fixed format was followed from the beginning to the end, making the preparation of the PCR a difficult task, and, worse, making it difficult to follow project development. It is recommended that the new Supervision Report (Form 590 plus Aide Memoire) systematically include updated tables which would constitute the permanent reporting system, all through the project's life.

PROJECT COMPLETION REPORT

ZAIRE
FIRST RAILWAY PROJECT (CREDIT 902-ZR)
AND
SECOND RAILWAY PROJECT (CREDIT 1475-ZR)

PART II: REVIEW OF PROJECTS FROM BORROWER PERSPECTIVE

1. General

1.01 The borrower basically confirmed the accuracy and adequacy of the factual information contained in Part I and Part III of the PCR, which were sent to him. Tables prepared by the borrower (SNCZ) have been instrumental in PCR preparation, particularly as regard computation of local costs and of the distribution of financing between different cofinanciers. The borrower commented in French on the draft PCR and its comments are translated hereinbelow. They are immediately followed by Bank staff comments on borrower's reactions.

2. Implementation Experience
(Evaluation Summary, paragraph 2)

2.01 The borrower confirms that technical assistance sped up project execution from 1987 on. But it also considers that SNCZ has gained experience in management of projects financed from foreign aid. Further, it considers that the development of computerized management systems had "a very positive impact in that respect".

Staff Comments

2.02 The staff agrees with the borrower's comments. Of special interest is the positive impact of management information systems, which shows that the Bank's effort for financing this type of item is relevant. Whether the Bank is equipped for appraisal of management information systems is not certain. See paragraph 5.02 of Part I on the belated, but useful intervention of a Bank computer specialist.

2.03 The borrower considers that the high cost to IDA, mentioned in the last sentence of the paragraph, should be attributed to IDA "which alone decides on the scheduling of its missions". But the borrower indicates that the supervision missions, specially those of the last three years (1987-1990) "had a positive impact not only on project execution but also on the preparation of the Transport Rehabilitation Project. These missions permitted to take the necessary corrective actions in project execution and to participate positively to keeping a firm line of conduct in the operations contributing to SNCZ's rehabilitation."

Staff Comments

2.04 The statement on project costs was purely factual and by no means intended to place any blame on the borrower.

3. Zairianisation
(Part I, paragraph 4.02)

3.01 The borrower considers that there is "some exaggeration" in the importance given to Zairianisation as an obstacle to the good execution of the projects: "while it is recognized that some of the appointments to management positions had not been made according to objective criteria ... this should not have such a negative impact".

Staff Comments

3.02 Again, the statement on rapid Zairianisation is factual. It reflects project files, which include evidence that Zairianisation was decided as a political measure, with a time limit, which did not permit a phased and logical approach to the replacement of expatriates by equally qualified nationals. Part I of the PCR does not formulate an opinion on the measure per se. Such an opinion would be *ultra vires*. But it points out, as it is its role to do, that the project design did not include all the measures necessary to alleviate the possible negative effects of the decision of Zairianisation.

4. Assumptions on Management
(Part I, paragraph 5.02(a))

4.01 The borrower "fully agrees" with the Bank on this point. But it regrets "that the Bank, which was so aware of what was going on, did not take the necessary measures, despite that it had the means to do so, to stop the deterioration of management. Its recommendations relative to the candidates to strategic positions in SNCZ were not what they should have been, given the level of competence necessary to serve adequately in the position".

Staff Comments

4.02 This is an interesting and indeed refreshing comment from the borrower. In substance, it regrets that the Bank has not been firm enough in its dealings with Government. The Bank is being clearly blamed for having accepted candidates which should have been rejected, to the disappointment of the borrower, which clearly expected that its good management would be protected by the Bank from the vagaries of Government decisions.

5. Consequences of the Cancellation of Arab Loans
(Part I, paragraph 5.02(d))

5.01 The borrower "always regretted that the Bank refused to act totally as the leader in the financing of Railways I. This translated in its subsequent refusal to provide funds to eliminate the financing gap, but also in the fact that it did not help SNCZ to find other sources of financing. The consequences of this are still felt today. In addition, SNCZ's unexpected efforts to mitigate the loss of foreign financing from its own resources limits its self-financing capacity."

Staff Comments

5.02 The Bank could not provide more IDA funds than allocated to the project, which is why it sought cofinancing in the first place. But the borrower's comment, after years of cooperation with the Bank Group, shows that the Bank should not take for granted that borrowers know the difference between Bank, IDA, etc, and know of the rules which govern cofinancing. An information effort is necessary. The statement that the Bank did not help SNCZ in finding other sources of financing is not accurate. On the contrary, the Bank made substantial efforts to arrange new financing, which resulted in the second project. As for SNCZ self-financing capacity, it is true that it has been hurt by the withdrawal of the Arab sources of finance. But it is jeopardized much more by SNCZ's poor financial situation.

6. Progress of Implementation
(Part I, paragraph 5.04)

6.01 The borrower agrees with the Bank on the poor performance of SONATRAD and on its negative impact on the project. It points out that the good progress made on wagon rehabilitation, which is now ahead of schedule, should be credited to SNCZ staff, which worked overtime, and to management, which accepted to deliver the necessary incentives.

Staff Comments

6.02 The staff agrees with SNCZ on the above.

7. Technical Assistance
(Part I, paragraph 7.06)

7.01 The borrower does not agree with the statement that the technical assistants did set up ground rules for maintenance and operations of equipment : "on the contrary, SNCZ at present uses the procedure manuals issued by equipment suppliers" ... "further, SNCZ deplors that some technical assistants preferred to work alone and did not really cooperate with the national counterparts which they were supposed to train" ... "when they left, some of them did not accept to conduct a formal transfer, even though such a transfer was stipulated in their contract".

Staff Comments

7.02 The information in paragraph 7.06 is based on supervision and other reports used in preparing the PCR. Possibly, Bank missions did not fully appreciate the tensions between expatriate technical assistants and local staff during project execution. The situation was not an easy one. Technical assistants came from different countries. Their experience of the country - and their approach to its problems - differed. So did their professional style. Some of them felt insecure - in a physical sense. Also, during the period under review, there were many periods of tension between Zaire and some of the countries from which the technical assistants originated. Paragraph 12.01 of Part I reflects the own doubts of the PCR on the technical assistance issues.

8. Financial Performance
(Part I, paragraphs 7.07 and 7.08)

8.01 The borrower considers that "the inadequate performance for which SNCZ is blamed should be shared with the Bank, since it asked for the appointment of a Financial Director, which it recruited itself".

Staff Comment

8.02 The Bank did not recruit itself a Financial Director.

9. Project Documentation

9.01 The borrower mentions that reports were abundant under Cr. 1475-ZR because of the new style of supervision of the Bank team assigned to the project. It also mentions that the technical assistants worked mainly on preparation of the Transport Rehabilitation Project, with "a major logistical support".

Staff Comment

9.02 There is no disagreement on this point, except that obviously, SNCZ found that ... reading of the paragraph highlighted the role of consultants, which is apparently a sensitive subject.

PROJECT COMPLETION REPORT

ZAIRE
FIRST RAILWAY PROJECT (CREDIT 902-ZR)
AND
SECOND RAILWAY PROJECT (CREDIT 1475-ZR)

PART III: STATISTICAL INFORMATION

Table 1. RELATED BANK LOANS AND IDA CREDITS

<u>Loan/Credit Title</u>	<u>Purpose</u>	<u>Year of Approval</u>	<u>Status</u>	<u>Comments</u>
River Transport Project Cr. 255-ZR (US\$ 7.0 million)	Rehabilitation of river transport infrastructure and fleet institution building of autonomous river management agencies.	1971	Completed	Final RoR 19%
Rail/River Transport Project Cr. 571-ZR (US\$ 26.0 million)	Rehabilitation of Matadi-Kinshasa Railway. River transport equipment institution building at ONATRA.	1975	Completed	Final RoR 19% Slow execution
ONATRA Modernization Cr. 1180-ZR (US\$ 26.0 million)	River transport and railway equipment. Track renewal. Institution building at ONATRA. Studies.	1981	Closing date 03.31.90	Physical implementation satisfactory but major management problems remain.
Matadi-Kinshasa Port Rehabilitation Cr. 2027-ZR (US\$ 75.0 million)	Reconstruction of quays at Matadi and Kinshasa. Cargo handling equipment. Studies.	1983	Closing date 12.31.90	Physical implementation satisfactory but major management problems remain.
Transport Rehabilitation I Cr. 2027-ZR (US\$ 75.0 million)	Continuing physical rehabilitation and institution building at ONATRA and SNCZ.	1989	In progress	Major financial problems at SNCZ

Table 2. PROJECTS TIMETABLES

I. RAILWAYS I (CREDIT 902-ZR)

<u>Item</u>	<u>Date Planned</u>	<u>Date Revised</u>	<u>Date Actual</u>
Identification (Project Brief)	none	none	June 1977
Preparation	August 1977	--	--
Appraisal Mission	October 1977	--	November 1977
Credit Negotiation	--	--	February 1979
Board Approval	June 1978	--	May 1979
Credit Signature	July 1978	--	June 1979
Credit Effectiveness	July 1978	September 1979 December 1979 June 1980 September 1980 January 1981	January 1987
Credit Closing	March 1982	December 1982 December 1983 December 1984 December 1985 June 1986 June 1987	December 1987
Project Completion	September 1981	--	December 1987

II. RAILWAYS II (Credit 1475-ZR)

<u>Item</u>	<u>Date Planned</u>	<u>Date Revised</u>	<u>Date Actual</u>
Identification (Project Brief)	December 1982	--	May 1983
Preparation			
Appraisal Mission	March 1983	--	June 1983
Credit Negotiation	September 1983	January 1984	March 1984
Board Approval	December 1983	April 1984	May 1984
Credit Signature			
Credit Effectiveness	--	November 1984	June 1985
Credit Closing	--	December 1987 December 1989 December 1990	December 1990
Project Completion	--	June 1986	December 1990

Table 3. CREDIT DISBURSEMENTS
Cumulative Estimated and Actual Disbursements

A. CREDIT 902-ZR (US \$'000)

<u>Quarter Ending</u>	<u>Appraisal Estimate</u>	<u>Actual</u>	<u>Actual as % of Estimates</u>	<u>Actual as % of Credit Amount</u>
December 31, 1979	100		0.00	0.00%
March 31, 1980	250		0.00	0.00%
June 30, 1980	500		0.00	0.00%
September 30, 1980	1000		0.00	0.00%
December 31, 1980	1500		0.00	0.00%
March 31, 1981	2000		0.00	0.00%
June 30, 1981	3000	200	6.67%	1.00%
September 30, 1981	5000	500	10.00%	2.50%
December 31, 1981	7000	2300	32.86%	11.50%
March 31, 1982	9000	4000	44.44%	20.00%
June 30, 1982	12000	6500	54.17%	32.50%
September 30, 1982	14000	8300	59.29%	41.50%
December 31, 1982	16000	10000	62.50%	50.00%
March 31, 1983	18000	12000	66.67%	60.00%
June 30, 1983	20000	13000	65.00%	65.00%
September 30, 1983	20000	13200	66.00%	66.00%
December 31, 1983	20000	13400	67.00%	67.00%
March 31, 1984	20000	13600	68.00%	68.00%
June 30, 1984	20000	13800	69.00%	69.00%
September 30, 1984	20000	14200	71.00%	71.00%
December 31, 1984	20000	14500	72.50%	72.50%
March 31, 1985	20000			72.50%
June 30, 1985	20000			72.50%
September 30, 1985	20000			72.50%
December 31, 1985	20000			72.50%
March 31, 1986	20000	15150	75.75%	75.75%
June 30, 1986	20000	16000	80.00%	80.00%
September 30, 1986	20000			80.00%
December 31, 1986	20000			80.00%
March 31, 1987	20000			80.00%
May 31, 1987	20000	19410	97.05%	97.05%

B. CREDIT 1475-ZR (SDRs)

<u>Quarter Ending</u>	<u>Appraisal Estimate</u>	<u>Actual</u>	<u>Actual as % of Estimates</u>	<u>Actual as % of Credit Amount</u>
December 31, 1984	500.00		0.00%	0.00%
March 31, 1985	2500.00		0.00%	0.00%
June 30, 1985	5000.00		0.00%	0.00%
September 30, 1985	8000.00		0.00%	0.00%
December 31, 1985	12000.00		0.00%	0.00%
March 31, 1986	16000.00		0.00%	0.00%
June 30, 1986	19000.00	100.00	0.53%	0.38%
September 30, 1986	21000.00	400.00	1.90%	1.54%
December 31, 1986	23000.00	900.00	3.91%	3.46%
March 31, 1987	24500.00	1000.00	4.08%	3.85%
June 30, 1987	26000.00	1500.00	5.77%	5.77%
September 30, 1987	26000.00	2200.00	8.46%	8.46%
December 31, 1987	26000.00	6900.00	26.54%	26.54%
March 31, 1988	26000.00	9000.00	34.62%	34.62%
June 30, 1988	26000.00	11600.00	44.62%	44.62%
September 30, 1988	26000.00	13900.00	53.46%	53.46%
December 31, 1988	26000.00	19200.00	73.85%	73.85%

March 31, 1989	26000.00	20200.00	77.69%	77.69%
June 30, 1989	26000.00	21600.00	83.08%	83.08%
September 30, 1989	26000.00	22300.00	85.77%	85.77%
December 31, 1989	26000.00	24100.00	92.69%	92.69%
March 31, 1990	26000.00	24200.00	93.08%	93.08%
June 30, 1990	26000.00			93.08%
September 30, 1990	26000.00			93.08%
December 31, 1990	26000.00	24940.00	95.77%	93.08%
March 31, 1990	26000.00	24963.00	99.06%	99.06%

Table 4. PROJECT IMPLEMENTATION
(1980 to 1984 targets agreed under 902-ZR)

	1976 <u>Actual</u>	1980 <u>Actual</u>	1982 <u>Object</u>	1982 <u>Actual</u>	1983 <u>Actual</u>	1984 <u>Object</u>	1984 <u>Actual</u>
1. Average locomotive availability (%)							
(a) Main line electric	85	72	85	75	78	85	68
(b) Main line diesel	56	51	75	40	46	75	46
(c) Shunting diesel	64	67	72	49	50	75	45
2. Productivity per available locomotive per year (locomotive-km '000)							
(a) Main line electric	68	77	90	91	93	100	91
(b) Main line diesel	85	73	90	110	114	90	112
3. Average wagon availability							
(b) ore	53	58	71				
(c) General goods	80	72	71				
4. Average turn-round time (in days)							
(a) General freight	14	7	12	24	12		
(b) ore	3.7	4	3.1	4	4.6	3	4.5
5. Average wagon load	25	24	26	24	29	28	29
6. Productivity per available wagon per year (ton-km '000)							
(a) all	345	361	400	334	392	450	359
7. Staff productivity ('000 traffic units per employee)	104	91	160	81	91	180	88

(1985/1987 targets agreed under 1475-ZR)

	1985 <u>Object</u>	1985 <u>Actual</u>	1986 <u>Object</u>	1986 <u>Actual</u>	1987 <u>Object</u>	1987 <u>Actual</u>	1988 <u>Actual</u>
1. Average locomotive availability (%)							
(a) Main line electric	75	68	80	40	70	79	76
(b) Main line diesel	55	50	65	77	70	45	41
(c) Shunting diesel	60	49	65	37	70	38	41
2. Productivity per available locomotive per year (locomotive-km '000)							
(a) Main line electric	90	88	95	82	95	76	77
(b) Main line diesel	105	88	110	82	110	79	79
3. Average wagon availability							
(a) all							
(b) ore	80	70	80	72	85	66	77
(c) General goods	70	67	75	72	80	72	79
4. Average turn-round time (in days)							
(a) General freight							
(b) ore	3.8	4.5	3.6	4.4	3.5	n.a.	n.a.
5. Average wagon load	n.a.	27	27	29	27	28	31
6. Productivity per available wagon per year (ton-km '000)							
(a) all	389						
(b) ore wagons	825	542	865	246	885		
7. Staff productivity ('000 traffic units per employee)	100	94	106	84	112		

Table 5. PROJECT COSTS AND FINANCING

Item	Appraisal Estimates						Actual
	Local	Foreign	Total	Local	Foreign	Total	
A. TRACK							
1. Relaying	23100	15700	38800	32850	21900	54750	
2. Concrete sleeper plant	200	3800	4000	0	0	0	
3. Quarry Equipment	100	2200	2300	46	1110	1156	
4. Track Maintenance Equipment	200	7500	7700	70	2270	2340	
5. Service Equipment	50	3050	3100	157	7713	7870	
• SUB-TOTAL	23650	32250	55900	33123	32993	66116	
B. LOCOMOTIVES & ROLLING STOCK							
1. 9 Diesel shunters	200	4300	4500	30	710	740	
2. 100 hopper wagons	300	5600	5900	0	0	0	
3. 12 passenger coaches	100	3000	3100	0	0	0	
• SUB-TOTAL	600	12900	13500	30	710	740	
C. SPARE PARTS							
1. Rehabilitation	1800	20000	21800	552	17860	18412	
2. Maintenance	400	8000	8400	0	0	0	
• SUB-TOTAL	2200	28000	30200	552	17860	18412	
D. WORKSHOP AND SERVICE EQUIPMENT							
1. Likasi depot extension	600	600	1200	0	0	0	
2. Machine tools	100	1700	1800	172	2700	2872	
3. Oxygen plant	150	500	650	0	0	0	
4. Handling equipment	100	2100	2200	50	940	990	
5. Workshop equipment	100	1250	1350	42	550	592	
6. Telecommunications, etc	200	650	850	401	1270	1671	
7. Data processing Center	200	3200	3400	250	3920	4170	
• SUB-TOTAL	1450	10000	11450	915	9380	10295	
E. ILEBO PORT							
1. Equipment	300	1100	1400	0	0	0	
2. Civil works	2000	2000	4000	0	0	0	
• SUB-TOTAL	2300	3100	5400	0	0	0	
F. STAFF HOUSING, MEDICAL							
	5000	2100	7100	0	0	0	
G. TRAINING AND CONSULTANT SERVICES							
	1500	2500	4000	1415	2410	3825	
H. LOCAL TAXES							
	3700	0	3700	2985	0	2985	
• TOTAL WITHOUT CONTINGENCIES	40400	90850	131250	39020	63353	102373	
J. PHYSICAL CONTINGENCIES							
	400	400	800	0	0	0	
K. PRICE CONTINGENCIES							
	14750	14700	29450	0	0	0	
• TOTAL WITH CONTINGENCIES	55550	105950	161500	39020	63353	102373	

Table 6. **PROJECT RESULTS**
Financial Impact (in million Zaire)

	Without Project	Projected Project with	Actual	
Net Operating Result 1979 1/	-17.5		-9	Projections made in 1979 (Cr 902-ZR) &
Net Operating Result 1980	3.2		105	Actuals from Appraisal Report Cr 1475-ZR
Net Operating Result 1981		10.30	-64	in 1984
Net Operating Result 1982		16.20	17	same
Net Operating Result 1983		24.10	-511	same
Net Operating Result 1984		0.00	-545	Projections made in 1984 (Cr 1475-ZR) &
Net Operating Result 1985		0.00	-931	Actuals from Appraisal Report Cr 2027-ZR
Net Operating Result 1986		0.00	-1723	in 1989
Net Operating Result 1987		818.00	-1061	same
Net Operating Result 1988		907.00	-9550	Projections as above. Actuals from SNCZ
Net Operating Result 1989		999.00	-1715	same
Net Operating Result 1990		1075.00		
Net Income 1979 2/	-15.5		-19	Projections made in 1979 (Cr 902-ZR) &
Net Income 1980	3.8		-5	Actuals from Appraisal Report Cr 1475-ZR
Net Income 1981		6.90	-54	in 1984
Net Income 1982		16.20	2	same
Net Income 1983		24.20	-85	same
Net Income 1984		-84.00	-2446	Projections made in 1984 (Cr 1475-ZR) &
Net Income 1985		-119.00	-913	Actuals from Appraisal Report Cr 2027-ZR
Net Income 1986		-153.00	-4475	in 1989
Net Income 1987		624.00	-6204	same
Net Income 1988		665.00	-4973	Projections as above. Actuals from SNCZ
Net Income 1989		696.00	-36665	same
Net Income 1990		716.00		same
Operating Ratio 1979 3/		112.00	104.0	Projections made in 1979 (Cr 902-ZR)
Operating Ratio 1980		98.00	79.0	Actuals from Appraisal Report Cr 1475-ZR
Operating Ratio 1981		94.00	111.0	in 1984
Operating Ratio 1982		88.00	98.0	same
Operating Ratio 1983		85.00	102.0	same
Operating Ratio 1984		100.00	119.6	Projections made in 1984 (Cr 1475-ZR) &
Operating Ratio 1985		100.00	110.2	Actuals from Appraisal Report Cr 2027-ZR
Operating Ratio 1986		100.00	110.0	in 1989
Operating Ratio 1987		91.00	121.1	same
Operating Ratio 1988		92.00	148.8	Projections as above. Actuals from SNCZ
Operating Ratio 1989		93.00	102.1	same
Operating Ratio 1990		93.00		same
Current Ratio 1979 4/		2.19	1.36	Projections made in 1979 (Cr 902-ZR)
Current Ratio 1980		2.79	1.81	Actuals from Appraisal Report Cr 1475-ZR
Current Ratio 1981		3.23	1.87	in 1984
Current Ratio 1982		3.75	1.87	same
Current Ratio 1983		4.37	1.46	same
Current Ratio 1984		3.10	1.60	Projections made in 1984 (Cr 1475-ZR) &
Current Ratio 1985		2.21	2.02	Actuals from Appraisal Report Cr 2027-ZR
Current Ratio 1986		2.74	1.81	in 1989
Current Ratio 1987		2.75	1.20	same
Current Ratio 1988		3.00		Projections as above. Actuals from SNCZ
Current Ratio 1989		3.90	0.70	same
Current Ratio 1990		4.00	0.75	same, but at 6/30/90
Quick Ratio 1979 5/		0.74	0.85	Projections made in 1979 (Cr 902-ZR)
Quick Ratio 1980		1.27	1.20	Actuals from Appraisal Report Cr 1475-ZR
Quick Ratio 1981		1.71	1.08	in 1984
Quick Ratio 1982		2.20	0.98	same
Quick Ratio 1983		2.89	0.69	same
Quick Ratio 1984		1.34	0.93	Projections made in 1984 (Cr 1475-ZR) &

1/ Operating Revenue less working Expenses including Depreciation
Should always be positive as per Credit Agreement

2/ Net Operating Revenue less Interest Charges and Other Expenses
and other revenue

3/ Operating Expenses + Depreciation/Operating Revenue

4/ Current Assets/Current Liabilities

5/ Cash + receivables/Current liabilities

Quick Ratio 1985	1.38	1.09	Actuals from Appraisal Report Cr 2027-ZR
Quick Ratio 1986	1.71	1.07	in 1989
Quick Ratio 1987	1.77	0.60	same
Quick Ratio 1988	1.92		Projections as above. Actuals from SNCZ
Quick Ratio 1989	2.22	0.44	same
Quick Ratio 1990	2.52	0.49	same, but at 6/30/90
Debt to Equity % 1979	19.05 %	12.00 %	Projections made in 1979 (Cr 902-ZR)
Debt to Equity % 1980	20.48 %	16.00 %	Actuals from Appraisal Report Cr 1475-ZR
Debt to Equity % 1981	31.58 %	58.00 %	in 1984
Debt to Equity % 1982	38.89 %	45.00 %	same
Debt to Equity % 1983	36.99 %	4.40 %	same
Debt to Equity % 1984	5.00 %	4.30 %	Projections made in 1984 (Cr 1475-ZR) &
Debt to Equity % 1985	5.00 %	5.00 %	Actuals from Appraisal Report Cr 2027-ZR
Debt to Equity % 1986	5.00 %	7.30 %	in 1989
Debt to Equity % 1987	5.00 %	10.60 %	same
Debt to Equity % 1988	6.00 %	13.20 %	Projections as above. Actuals from SNCZ
Debt to Equity % 1989	6.00 %	21.00 %	same
Debt to Equity % 1990	6.00 %	35.00 %	same, but at 6/30/90
Debt Service Coverage 1979 6/	2.86	1.00	Projections made in 1979 (Cr 902-ZR)
Debt Service Coverage 1980	4.41	2.16	Actuals from Appraisal Report Cr 1475-ZR
Debt Service Coverage 1981	3.94	0.71	in 1984
Debt Service Coverage 1982	4.01	2.60	same
Debt Service Coverage 1983	3.59	-1.72	Same. Actual from APR 2027-ZR, 1989
Debt Service Coverage 1984	7.72	2.78	Projections made in 1984 (Cr 1475-ZR) &
Debt Service Coverage 1985	7.78	0.04	Actuals from Appraisal Report Cr 2027-ZR
Debt Service Coverage 1986	7.55	-0.92	in 1989
Debt Service Coverage 1987	10.61	1.01	same
Debt Service Coverage 1988	1.01		Projections as above. Actuals from SNCZ
Debt Service Coverage 1989	1.55		same
Debt Service Coverage 1990	9.41		same, but at 6/30/90

6/ Operating surplus for the year should be greater than 1.5 times the debt service requirements of any succeeding fiscal year. In fact, the Appraisal report uses the Cash Surplus (p. 46) to compute the debt/service coverage ratio.

Table 7. STATUS OF COVENANTS

(a) CR. 902-ZR - CREDIT AGREEMENT	STATUS
Section 3.01 (a) The Borrower shall cause the SNCZ to perform in accordance with the provisions of the Development Credit Agreement and shall not take any action which would prevent such performance.	A foreign policy decision by Borrower triggered the de facto cancellation of OPEC and SDF loans and prevented SNCZ from implementing the project.
Section 3.01 (d) Borrower shall ensure that (i) the SNCZ's payments back to its suppliers be promptly submitted; (ii) the Company not incur charges arising from late transfers; and (iii) at least the equivalent of ten million dollars be made available to the SNCZ annually for purchases of spare parts following completion of the project.	(i) and (ii) not complied with: payments of bills to suppliers were held back and SNCZ incurred charges resulting from late payments. (iii) has been partially complied with; SNCZ can obtain foreign exchange through commercial banks, but basic regulations makes this long and costly and the objectives of the covenant are not met.
Section 3.02 (a) Borrower to take such steps to permit the SNCZ to earn the rate of return stipulated in Section 4.05 and to comply with the provisions of Section 4.06 thereof (tariffs to cover costs).	Condition not met.
Section 3.02 (b) Borrower to establish and maintain a Tariff Commission ... satisfactory to the Association.	Partly complied with. Tariff Commission was established. IDA reluctantly agreed to its powers and duties, even though they were not what was planned. Commission quickly became moot.
Section 3.03. Borrower to restrict its subsidies to the level required to cover losses arising from non-profit making services ...	Complied with. No subsidies granted. In fact, Borrower did not cover costs of non-profit making services.
Section 3.04. Borrower to establish and maintain an operations coordinating unit for coordinating operations	Complied with.
CR. 902-ZR - PROJECT AGREEMENT	
Section 2.04 (c) SNCZ to prepare Project Completion Report within six months of closing date.	Complied with.
Section 3.03. SNCZ to conduct a study of low density lines and exchange views with IDA ... no later than December 31, 1979.	Date was postponed to December 31, 1985. Otherwise complied with.
Section 3.04. SNCZ to take steps to achieve operational targets described in PA Schedule.	Steps taken. Targets not reached. Causes: targets too high; lack of spare parts; cancellation of Arab loans.
Section 3.05. Costing Unit to be established and maintained to determine and monitor costs of services.	Condition substantially met.
Section 4.02. Audited financial statements to be sent to IDA no later than six months after the end of each fiscal year.	Condition met eventually, more than six months after end of fiscal year.
Section 4.03. No investment in excess of \$ 1,000,000 equivalent in any one year, without prior approval of IDA.	Condition met.
Section 4.04. Debt limitation covenant (cash revenue to be no less than 1.5 times the maximum debt service requirement for the fiscal year).	Not met. See Section 4.04 (b) of Project Agreement 1475-ZR.
Section 4.05 (a). Rate of return covenant (3% on fixed assets from 1981 on).	Not met. See Section 4.04 (b) of Project Agreement 1475-ZR.
Section 4.06. Tariffs to be maintained at a level covering at least the cost of each of its services.	Tariffs are set by Government. Condition not met.

(b) CR. 1475-ZR - CREDIT AGREEMENT

STATUS

Section 3.01 (d). Borrower shall cause the SNCZ to obtain promptly as needed such foreign exchange required for its recurrent expenses in amounts not less than the equivalent of \$US 1.0 million per month.

Agreement with IMF in 1987 stipulated that the market should substitute Government for foreign exchange allocations. Unenforceable covenant.

Section 3.02. Borrower to act within 30 days on proposals for changes in SNCZ tariffs, after which any such proposal not acted upon shall be deemed approved by Borrower.

Condition not met.

Section 3.03 Consultation with IDA on the amounts of foreign exchange necessary to cover SNCZ requirements for the coming year.

No trace of formal consultations.

Section 3.04. Borrower not to permit to SNCZ to deviate from action plan for management reorganisation without IDA's prior approval.

Condition met.

CR. 1475-ZR - PROJECT AGREEMENT

STATUS

Section 2.04 (d). SNCZ to prepare Project Completion Report within six months of closing date.

In progress.

Section 3.01 (b). Planning Unit to be established by December 31, 1984. First five-year investment plan to be produced by September 30, 1985.

Condition met.

Section 3.01 (c). Employment of staff in specified positions, whose qualifications, experience and terms and conditions of employment should be satisfactory to the IDA.

Condition met.

Section 3.01(d). Changes in management structure of SNCZ affecting one of the above positions to be made only following an exchange of views with the IDA.

Condition met.

Section 3.04. SNCZ not to deviate from or modify staffing plan or action plan for management reorganisation approved by IDA without IDA's prior approval.

Targets not reached.

Section 3.05. SNCZ to take all steps to achieve defined operational targets.

Unsatisfactory accounting records until 1987.

Section 4.01 (b). Revaluation of fixed assets on the basis of replacement costs.

Complied with.

Section 4.02. Audited accounts to be sent to the IDA no later than six months after end of fiscal year.

All audited accounts received, at times later than six months after end of fiscal year.

Section 4.03. SNCZ to participate in exchange of views concerning its foreign exchange requirements.

Not complied with.

Section 4.04 (a). SNCZ to take promptly any action necessary to reach covenanted rate of return of 3% on current net value of fixed assets.

Action generally taken, but Government did not make proposals for tariff increases.

Section 4.04 (b) Gross revenue of SNCZ not to be less than operating expenses.

Not complied with.

Section 4.04 (d). No tariff to be insufficient to cover the long term variable cost of the service to which tariff is applied, including provision for depreciation of fixed assets.

Has become irrelevant given the financial crisis of SNCZ.

Section 4.04 (e). SNCZ to review its tariffs before October 1 of each year and to furnish to the IDA the results of such review.

Has become irrelevant given the financial crisis of SNCZ.

Section 4.05. Debt limitation covenant (cash revenue to be no less than 1.5 times the maximum debt service requirement of any fiscal year).

Has become irrelevant given the financial crisis of SNCZ.

Table 8. USE OF BANK RESOURCES
A. Staff Inputs

RAILWAYS I

FY	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	TOTAL
PREP		4.5	14.8													19.3
PREAP	1.8	8.9														10.7
APPR		47.5	6.3													53.8
NEGOT		10.8														10.8
PROC				0.6	1.2		0.7	0.2								2.7
SPN			4.8	13.7	16.5	15.0	29.6	7.3	20.1	10.7	5.6		1.3			124.6
PCR															3.0	3.0
TOTAL	1.8	60.9	36.7	14.3	17.7	15.0	30.3	7.5	20.1	10.7	5.6	0.0	1.3	0.0	3.0	224.9

RAILWAYS II

FY	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	TOTAL
PREP					0.2	6.8	12.2									19.2
PREAP					1.2	10.7										11.9
APPR							12.7	37.6								50.3
NEGOT								8.6								8.6
PROC							0.6	0.7	0.2	0.8	1.1	0.3				3.7
SPN							0.1		9.3	13.0	33.3	20.7	16.4	6.1		98.9
PCR										0.8					3.0	3.8
TOTAL	0.0	0.0	0.0	0.0	1.4	0.0	30.9	59.1	9.5	14.6	34.4	21.0	16.4	6.1	3.0	196.4
TOTAL	1.8	60.9	36.7	14.3	19.1	15.0	61.2	66.6	29.6	25.3	40.0	21.0	17.7	9.1	6.0	424.3

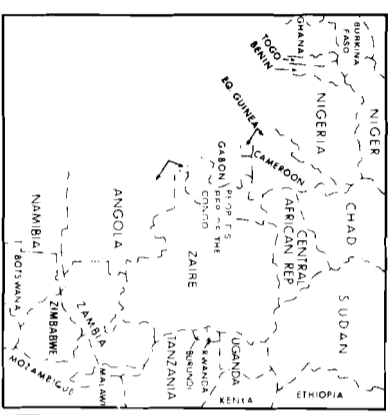
Table 8. USE OF BANK RESOURCES
B. Mission Data by Stage of Project

Mission	Month/Year	No. of Persons	Weeks in field
Identification	11/75	TE, FA, RE	6.0
Preparation			
Appraisal 902-ZR	11/77	TE (2), RE, FA	6.0
Appraisal 1475-ZR	5-6/83	TE, FA (2), RE	12.0
Prep	11/78	TE, LO	
• TOTAL			24.0
Supervision 1	6/79	RE (2)	2.0
Supervision 2	1/80	TE	1.0
Supervision 3	5/80	RE	0.5
Supervision 4	2/81	RE, DC	2.5
Supervision 5	6/81	TE, RE, FA	2.0
Supervision 6	2/82	RE, FA	2.0
Supervision 7	6/82	RE	1.5
Supervision 8/Prep. 1475	1/83	RE, FA, TE	6.0
Supervision 9	6/86	FA, TE, RE	5.0
Supervision 10	11/86	FA, TE	3.0
Supervision 11	1/87	TE, FA, RE	3.0
Supervision 12	6/87	TE, RE, FA	3.0
Supervision 13	11/87	DC, TE, TC, FA, RE, TE	8.0
Supervision 14	6/88	FA	1.5
Supervision 15	10/88	TE, FA, RE	3.0
Supervision 16	5/89	TE, FA, RE, TR SP	1.5
Supervision 17	11/89	TE	0.5
Supervision 18	5/90	TE, RE, FA	2.0
Supervision 19	10/90	TE, RE, FA	2.1
• TOTAL			50.1
PCR	7/91	TC	0.5
• TOTAL			74.6

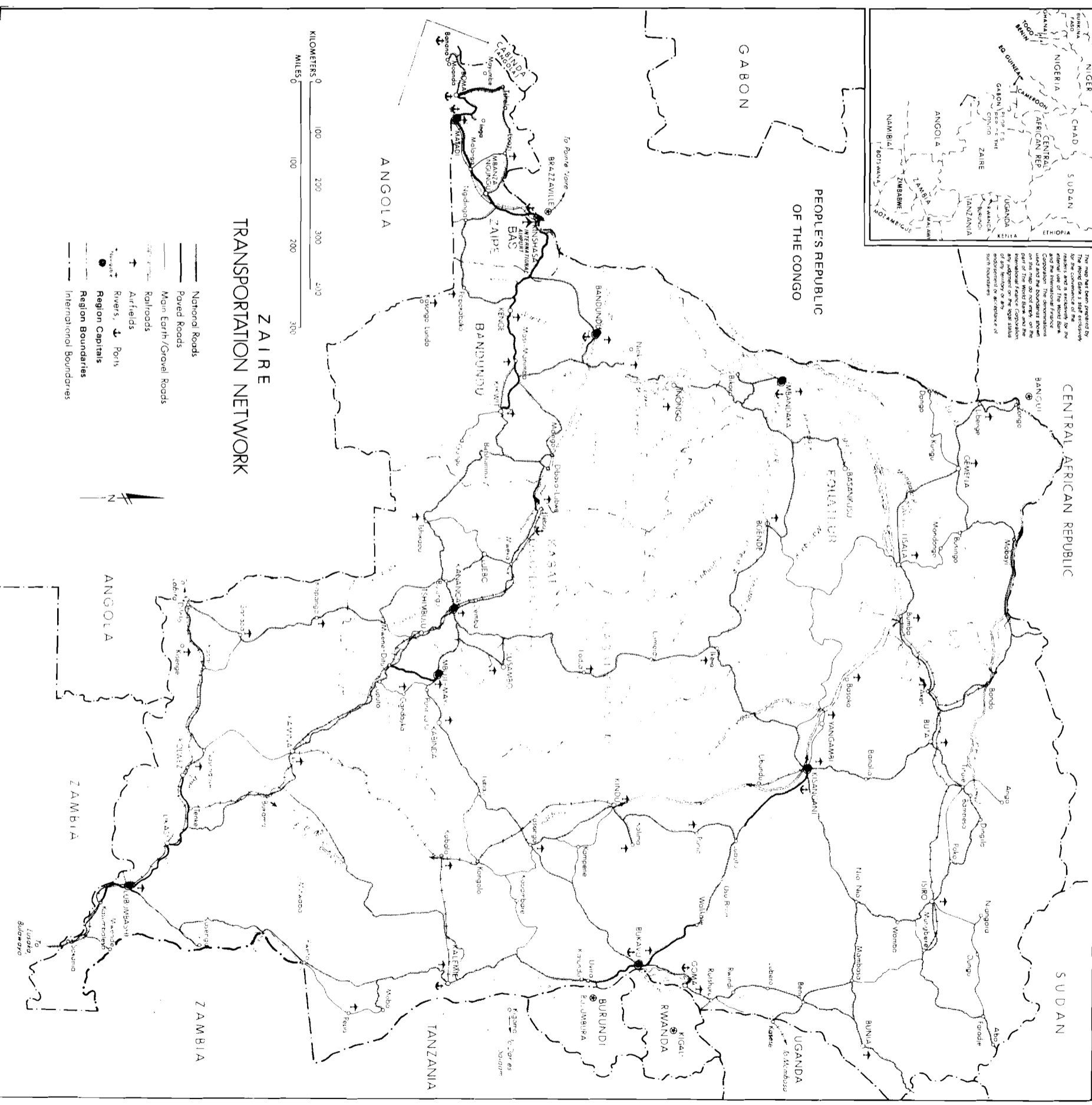
DC: Division Chief
FA: Financial Analyst
LO: Loan Officer

RE: Railway Engineer
TC: Transport Consultant
TE: Transport Economist

TR SP: Training Specialist



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ZAIRE
TRANSPORTATION NETWORK

- National Roads
- Paved Roads
- Main Earth/Gravel Roads
- Railroads
- Airfields
- Rivers, Ports
- Region Capitals
- International Boundaries
