

Guinea

Kindia-Kankan Road Project

Report Date: October, 2002

Field Survey: July, 2001

1. Project Profile and Japan's ODA Loan



Project Site



Site Picture (Bridge and Road)

1.1. Background

At the time of appraisal in 1989, Guinea had only 1,164 km of paved roads over 12,753 km of road surface. As a result of poor road maintenance, major trunk roads had been left deteriorated or unpaved, making it difficult for the road transportation system to operate without interruption during the rainy season. The Government of the Republic of Guinea (GOG) implemented a five-year road rehabilitation plan (1988-92) to build trunk roads. The Kindia-Kankan Road, unpaved at the time of appraisal, was not accessible during the rainy season, requiring a major detour in the south near Sierra Leone. Moreover, rail transportation was not functional, which made rehabilitating the Kindia-Kankan Road an urgent necessity. International donors (AfDB, World Bank, EU and JBIC) agreed to finance the rehabilitation of respective portions of Kindia-Kankan Road, the principal national trunk road.

1.2. Objectives

Rehabilitation and pavement of a part of the national road between Kindia and Kankan in order to improve the links between the large economic centers of the country.

1.3. Project Scope

Upgrading the national road between Kindia and Kankan (538 km) to a paved two lane road with a width of 6 meters including shoulders (1.5 meters each). The Project shall be divided into 6 sections; one section between Kindia and Mamou, 2 sections between Mamou and Dabola, and 3 sections between Dabola and Kankan. (The proceeds of Japan’s ODA Loan are available for the 146-km section between Mamou and Dabola.) Consulting services, which have greatly helped the project, were financed by the AfDB and consequently are outside of the JBIC-financed project scope.

	(Kindia)	(Mamou)	(Dabola)			(Kankan)
Lot		1	2	3	4	5
Length (km)	136 km	73 km	73 km	73 km	89 km	94 km
Civil Works	AfDB	JBIC	JBIC	IDA	EU	EU
Consulting	IDA	AfDB	AfDB	IDA	EU	EU



1.4. Borrower / Executing Agency

The Government of the Republic of Guinea/Ministry of Transport and Public Works (MTTP)

1.5. Outline of Loan Agreement

Loan Amount	3,858 million yen
Loan Disbursed Amount	3,858 million yen
Exchange of Notes	March, 1990
Loan Agreement	April, 1990
Terms and Conditions	
Interest Rate	1.0 % p.a.
Repayment Period (Grace Period)	30 years (10 years)
Procurement	General Untied
Final Disbursement Date	August, 1995

2. Results and Evaluation

2.1. Relevance

The Kindia-Kankan Road constitutes the largest trunk road in the country. As of the time of appraisal, the project objective was consistent with the GOG's Road Sector Strategy (1987-1996), a national priority. The project was also co-financed by the World Bank (IDA), the African Development Bank (AfDB) and the European Union (EU).

Since 2000, Guinea has been implementing its Poverty Reduction Strategy Paper (PRSP) as a fundamental macroeconomic guideline. It covers fiscal policy, institution building, social development and infrastructure improvement. PRSP explicitly recognizes the importance of both urban and rural road networks in attacking poverty in the country. Hence, the project objective is still quite relevant to GOG 's economic development plan.

2.2. Efficiency

(2.2.1) Project Scope

Almost all civil works were conducted as planned, except for two existing bridges (BAFING I & II) in Lot 1, which were replaced instead of being rehabilitated. This modification was made mainly because unexpected structural deterioration of the existing two bridges was progressing, and because there was more heavy vehicle traffic on the bridges than expected at the time of appraisal.

(2.2.2) Implementation Schedule

The project was completed with a three-year delay caused by administrative approval procedures and heavy rain in 1994.

(2.2.3) Project Cost

The total project cost increased, from the original estimate of 4,539 million yen to 4,770 million yen. It is presumed that the increase in project cost reflects exchange rate fluctuation and the additional construction of two bridges mentioned above.

2.3 Effectiveness

At the time of appraisal, Economic Internal Rate of Return (EIRR) for Mamou-Dabola section was calculated to be 7.7% (cf. 14.9% for Kindia-Kankan section) based on the following assumptions:

(Main Assumptions):	Project Life	:	20 years
	Benefits	:	Savings in Vehicle Operating Costs (VOC) and O&M Costs on the assumption of annual traffic growth of 10% from 1989 O-D survey data and inclusion of alternative traffic in the southern region
	Costs	:	Investment Costs and O&M Costs

Since enough data was not available in the survey on the actual traffic volume, recalculation of Economic Internal Rate of Return (EIRR) was not conducted based on the above assumptions. However, when World Bank, a co-financier for the project, evaluated the project in 1997 in its Implementation Completion Report, its recalculated EIRR for the Mamou-Kankan section was more than 40% (cf. 11% estimated at appraisal). As shown in Table 1, the recalculation was based on a 300% increase in average daily traffic, from the volume forecast at appraisal to actual traffic. World Bank overall evaluation of the project is that the project met most of its objectives and has had a large and positive economic impact.

Table 1 Economic Costs and Benefits

Road	Appraisal Estimates 1988		Actual Estimate 1997	
	Traffic ADT ¹	EIRR %	Traffic ADT	EIRR %
<u>Dubreka-Boffa-Kolaboui</u>		13		>20
Dubreka-Boffa	171		782	
Boffa-Kolaboui	118		502	
<u>Mamou Kankan</u>		11		>40
Mamou-Dabola	75		221	
Dabola-Kankan			108	
Spot Improvement	15 cars/day	12 to 32	>30 cars/day	>12

Source: World Bank

2.4 Impacts

(2.4.1) Urbanization

The Kindia-Kankan Road runs through major towns and cities in Guinea. Markets and commercial activities have flourished along the road network. People have migrated to urban areas for more lucrative earning opportunities, and, as a consequence, the urban population has increased significantly since the project began, though it is not clear to what extent the project accelerated the urbanization. However, by comparing data before and after the project, we can see that, in 1980, the urban population, mostly concentrated in the cities of Conakry, Kindia and Kankan and their surrounding “communes,” was 19% of the total population. It had increased to 31% in 1998.

(2.4.2) Socioeconomic Impacts and Poverty Alleviation

In addition to overall economic impacts, improved access to roads makes it easier for rural residents to use public services, including education and health, which are often located in city centers. It also allows residents to commute to urban areas to earn higher wages. According to MTTP, the project had positive social impacts, in the forms of jobs created during the period of construction and economic activities developed along the road on the outskirts of towns. The improvement of the road network seems to have had a multiplier effect in alleviating poverty, as shown in selected development indicators in Table 2.

¹ ADT: Average Daily Traffic

Table 2: Evolution of Development Indicators Before and After the Project

	Before (Year)	After (Year)
Per capita GDP (\$)	1,446 (1995)	1,785 (1997)
Life expectancy at birth	45.1 (1983)	54 (1999)
Infant mortality rate per thousand	136.3 (1992)	98 (1999)
Primary enrollment ratio (girls)	20 (1991)	40 (1998)
Primary enrollment ratio (boys)	45 (1991)	68 (1998)
Access to safe water (%)	29 (1989)	49 (1999)

Source: Interim Poverty Reduction Strategy Paper

(2.4.3) Traffic Accidents and Safety

According to MTTP, the improved road conditions reduced the volume of fatal accidents on the Kindia-Kankan Road, which is mountainous, and increased road safety in general. Figures on traffic accidents have not been made available to date.

(2.4.4) Environmental Impacts

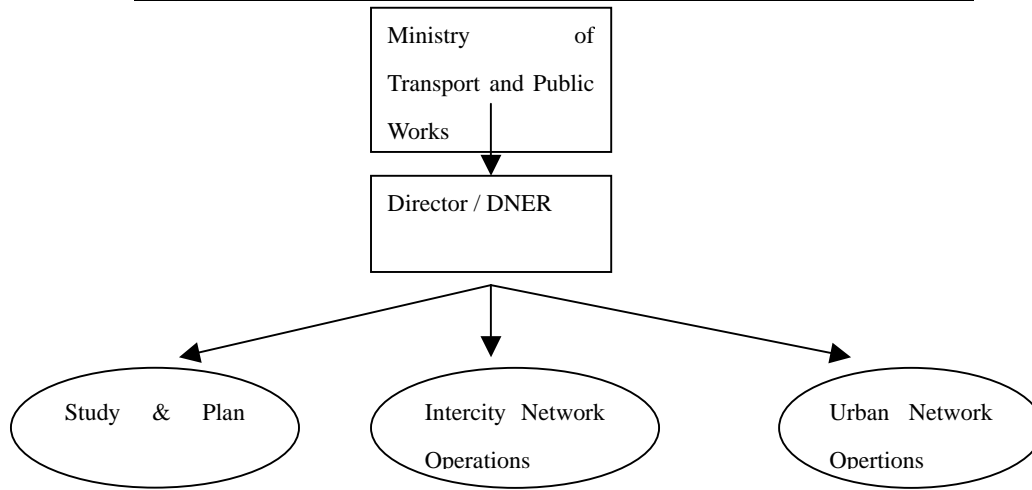
Since the project was implemented on existing road, no resettlement was required, and negative impacts on the environment were considered to be low. No quantitative data on environmental monitoring is available, however.

2.5 Sustainability

(2.5.1) Operation and Maintenance

The National Department of Road Maintenance (DNER) under the Ministry of Public Works and Transport assumed responsibility for maintenance of the Kindia-Kankan Road. Since 1989, DNER has planned road maintenance. Also since that time, the actual implementation of road maintenance has been handled by private interests in order to promote small and medium enterprise (SME) and employment opportunities on the local level. The budget for maintenance work is allocated to such private SME partially from the Road Fund mentioned below.

Organization Structure of Ministry of Transport and Public Works



(2.5.2) Road fund

In order to achieve efficiency in road maintenance, the GOG initiated a road fund in 1989; major sources of funds are fuel taxes and vehicle registration fees. Although the fund was established to finance road maintenance, occasionally, government agencies have tapped the fund for other purposes, making it difficult to keep the fund financially sound. As a consequence, demand for road maintenance cannot be fully met each year (See Table 3). In order to improve this situation, the GOG has taken initiatives to restructure the fund to reflect the true interests of the road users. The Board of the Road Fund, which includes local SMEs, truck drivers and other stakeholders, was established to oversee the fund. In exchange, SMEs give their profits to the Road Fund to consolidate its finances.

Table 3: Road Maintenance Expenditure from Road Fund (in million Guinea francs)

Year	Demand	Budget allocated	Budget executed
1990	3,700	2,100	1,033
1991	6,300	2,700	1,690
1992	6,500	2,800	1,400
1993	8,000	2,500	2,175
1994	10,000	2,500	1,000
1995	11,300	4,581	4,431
1996	12,070	4,725	2,962
1997	12,000	7,000	7,000
1998	10,550	8,600	7,511
1999	n.a.	11,475	11,097
2000	n.a.	12,800	n.a.

Source: National Plan of Transport (2001)

Comparison of Original and Actual Scope

	Plan	Actual
Construction of Mamou-Dabola	146 km	As planned
Lot 1		
Construction of a two lane road	73km	As planned
Bridge (Repair)	8	6
(Replacement)	1	3
Others (Culvert Pipe)	2,496 m	As planned
(Traffic Signs)	172	As planned
(Sidewalk Guard)	11,095 m	As planned
(Road Planting)	99,550 m ²	As planned
Lot 2		
Construction of a two lane road	73km	As planned
Bridge (Repair)	3	As planned
(Replacement)	1	As planned
Others (Culvert Pipe)	2,551 m	As planned
(Traffic Signs)	147	As planned
(Sidewalk Guard)	3,572 m	As planned
(Road Planting)	48,200 m ²	As planned
(2) Implementation Schedule		
Civil Works		
Contract Award and Signing	October 1990	April 1992
Construction	November 1990-June 1993	October 1993-June 1996
(3) Project Cost		
Foreign currency	3,034 million Yen	4,213 million Yen
Local Currency	6,297 million G.F	5,143 million G.F.
Total	4,539 million Yen	4,770 million Yen
ODA Loan Portion	3,858 million Yen	3,858 million Yen
Exchange Rate	1 G.F. = 0.239 Yen (as of 1989)	1 G.F. = 0.108 Yen (as of 1996)