Kenya

Tana River Basin Road Construction Projects (I) and (II)

Report Date: October 2002

Field Survey: July-August 2001

1. Project Profile and Japan's ODA Loan

Site Map

Project Site (Near Garsen)

1.1. Background

Kenya's economy remains largely dependent on exports of its main agricultural products such as coffee and tea . The largest constraint on the country's agricultural sector was insufficient rain, making land less productive. It was therefore necessary to develop an irrigation system using water resources from the Tana River, the longest river in Kenya. The Tana River Development Agency was founded in 1974 to promote the Tana River Area Development Program, with a focus on irrigation. Especially, in downstream of Tana River, large scaled irrigation plan had been implemented. For the successful development of Tana River area including the irrigation plan, the development of road network was inevitable. The conditions of roads in downstream areas deteriorated so badly that the roads were inaccessible during the rainy season, and even during the dry season, the road traffic was not easy. Given this situation, the Government of Kenya decided to implement the Tana River Basin Road Construction Project (hereinafter referred to as "Project I") and requested for Japan's ODA Loan in 1980. During the implementation of Project I, however, financial constraints of the Government of Kenya in appropriating local-cost materials caused significant delays in the road construction. The situation in Kenya at that time, attributed to various factors including deterioration of its economy, caused such financial constraints, which had not been foreseeable at the time of appraisal. As a result, large sections of the originally-planned roads were left incomplete. In

order to remedy the situation, the government requested another Japan's ODA Loan in 1989 and resumed construction work mainly under contract out base while utilizing equipment and machinery which had been supplied under Project I. This portion of the project covered by the second Yen Loan will be hereinafter referred to as "Project II".

1.2. Objectives

Project I : To supply construction equipment and machinery necessary for the development of the road network in the Tana River downstream area.

Project II : To construct the Garissa-Hola-Garsen-Malindi road in order to promote the development of the Tana River downstream area

1.3. Project Scope

Project I:

(a) Procurement of road construction and rehabilitation machinery and equipment for the following roads:

(1) Garissa-Garsen (223 km), (2) Garsen-Malindi (105 km), and (3) Garsen-Lamu (100 km).

(b) Consulting services

Tendering Assistance/Maintenance of machinery/Training of NYS staff supervision

Project II:

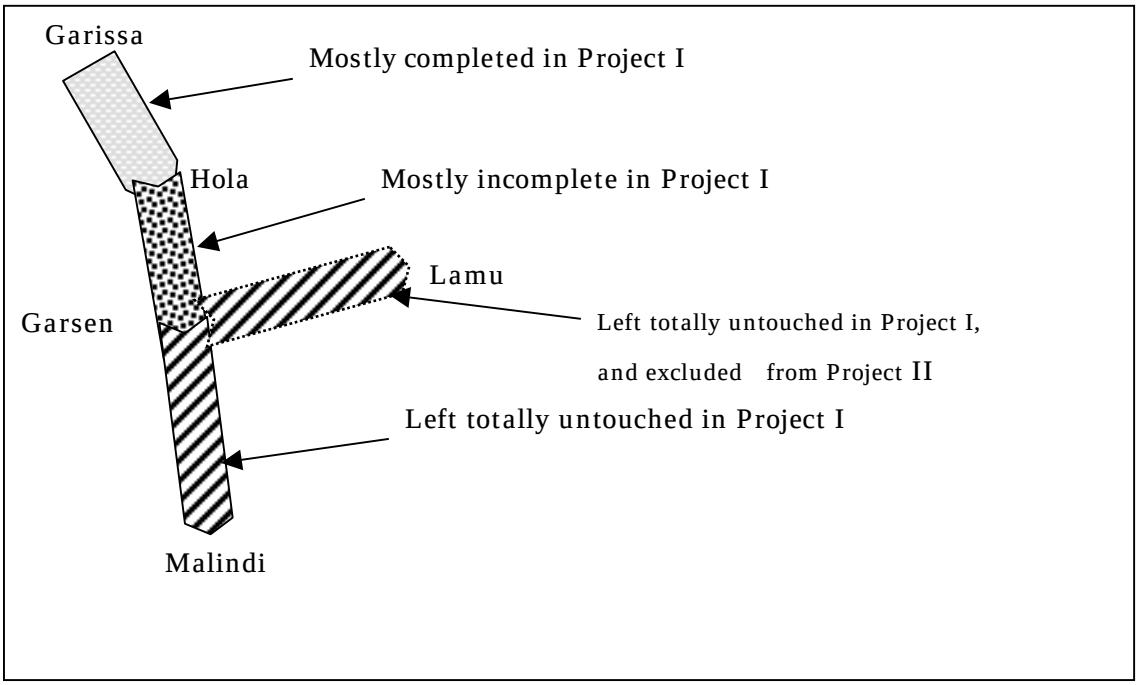
(a) Construction of two-lane, bituminous-surfaced road for the following sections:

(i) Garissa-Hola (129 km), (ii) Hola-Garsen (94 km) (iii) Garsen-Malindi (105 km)

(b) Consulting services

Supervision/Technical Assistance/Tendering Assistance, etc

Sections Covered by Projects I and II and Work Status at Project II Appraisal



1.4. Borrower / Executing Agency

The Government of the Republic of Kenya / National Youth Services (NYS[1])

1.5. Outline of Loan Agreement

	Project I	Project II
Loan Amount Loan Disbursement Amount	6,100 million yen 6,051 million yen	6,523 million yen 6,519 million yen
Exchange of Notes Loan Agreement	June 1981 April 1982	March 1990 March 1990
Terms and Conditions Interest Rate Repayment Period (Grace Period) Procurement	 3.0 % p.a. 30 years (10years) Partially Untied	 2.5% p.a. 30years (10 years) Partially Untied
Final Disbursement Date	April 1987	June 2000

[1] The NYS is a voluntary program for 2000 unemployed high school graduates each year, ages 18 – 22, who serve for 2-3 years on projects that address national development needs and contribute to the personal and professional development of the participants. In the current year there were no new participants due to lack of funds.

2. Results and Evaluation

2.1. Relevance

The agriculture in Kenya has been regarded as the important sector in the country, accounting for approximately 30% of its GDP and agricultural products such as coffee and tea have been occupying the substantial share of its export. The Government of Kenya therefore placed a high priority on the development of agriculture and in fact the development of the agriculture sector was the most important issue in the Forth Five-Year Development Plan of the government. The population engaged in the agricultural sector accounts for approximately 70% of the entire labor population and the sector is still the most important in the country. Under such circumstances, the success of agricultural development in Kenya and subsequent distribution of goods for more activated economy of the country depended on the successful development of irrigation plan in downstream of Tana River. However, undeveloped roads in the area prevented the smooth implementation of the irrigation plan and, therefore, the implementation of Project I was quite relevant.

The civil work between Garissa and Hola section was almost completed in Project I. It was envisaged that, if the section left unpaved, the completed civil work section would be damaged and a huge amount of maintenance cost would be required to avoid such damage. In addition, considering the service life of equipment and machinery supplied under Project I, it was recognized that the earliest development of the section was imperative.

The development of remaining two sections, namely Hola-Garsen, Garsen-Malindi, was also regarded as imperative, seeing them as integral part of the overall road project, in order to enhance effectiveness of the project. The importance of the project remained unchanged for the development of Tana River area, however, the Government of Kenya had been in a position to keep relying on foreign aid to implement this kind of the aggressive development project due to sluggish economic situation at that time. Therefore, the implementation of Project II was indispensable.

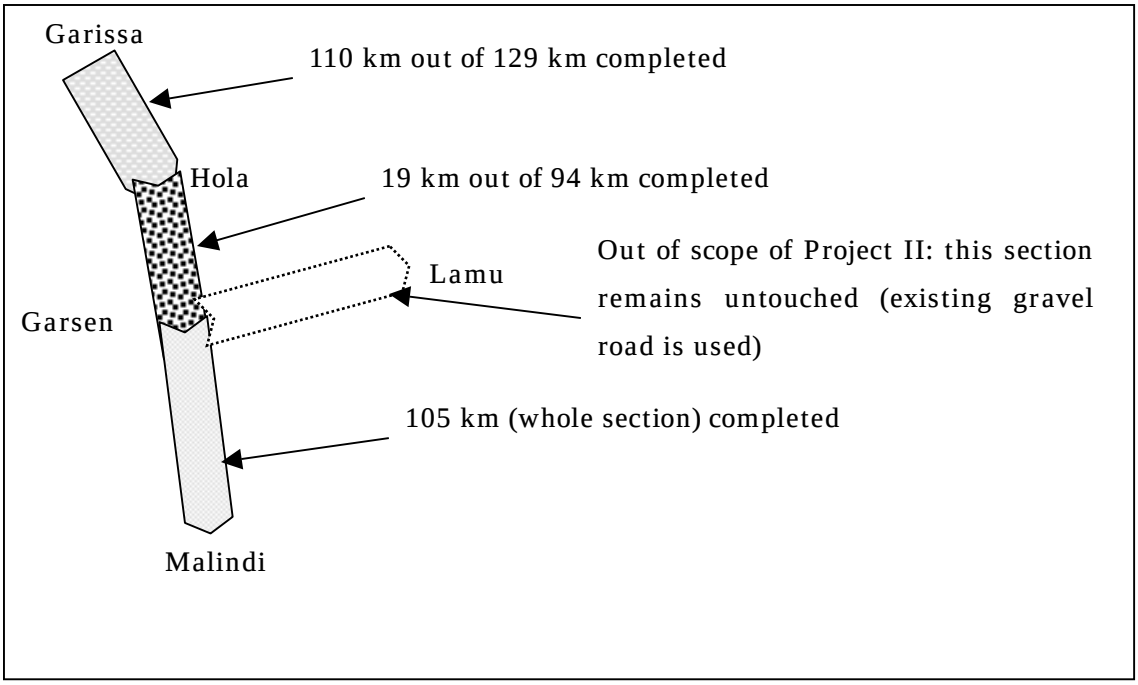
The Tana River Basin region has great potential in agriculture, livestock and tourism sectors, despite some uncertainties recently created by natural disaster and local security situation. Hence, the original project objective of improving the road network in the Tana River area to promote agricultural products production is still relevant.

2.2. Efficiency

Project I—All equipment under the Japan's ODA loan (6,100 million yen) was procured as planned. However, owing to insufficient local currency appropriation (equivalent to 10,160 million yen), procurement of the local currency portion of the project, including fuel, asphalt, cement, and spare parts, could not be achieved. Consequently, only half of the Garissa-Garsen (223 km) road was completed.

Project II – The Garsen-Lamu section in Project I was to be taken over by KfW (German Financial Institution) and JBIC finance was available for the remainder of the Garissa-Malindi road. The project is still incomplete in the Garissa-Hola and Hola-Garsen sections. The KfW did not finance the pledged section after all and the section remains incomplete to date. The Garisa-Hola-Garsen Sections have not been completed mainly due to the unexpected natural disaster occurred in 1997.

Status of Road Work at the Completion of Project II



There was a substantive delay in implementation of Project I. In Project II, civil works for Hola-Garsen-Malindi Sections were contracted out in order to avoid delay, whereas Garissa-Hola Secion was done by NYS staff and trainees as originally planned for the whole

section. However, Project II was also delayed because of slow administrative procedures in Kenya and disruption of construction work in the wake of El Nino in 1997.

During the months of April to July and October to December in 1997, the rainfall in the project site caused serious floods and damages to road construction sites. The damages in Garissa-Hola-Garsen Sections were particularly serious, and contractor's camps and construction equipments were completely inundated, and the government issued a suspension order for construction works during this period. The natural disaster had not been expected at the time of appraisal and the suspension of the project was inevitable.

In essence, both Project I and Project II failed to complete the planned road construction works because of lack of local currency appropriation. Project II was intended to cover large portion of local currency but could not deliver the intended outcome as the macroeconomic conditions started to deteriorate since 1997. However, needless to say, it was the unexpected natural disaster that was the most fatal for Project II. The international donor community's growing concerns over public administrational transparency and governance of Kenya until 2000, when Kenya finally accepted to collaborate with the World Bank and IMF to draft the macroeconomic framework based on the Poverty Reduction Strategy Paper (PRSP), prevented Kenya from getting adjustment loans and allegedly accelerated the economic downturn.

2.3. Effectiveness

(2.3.1)

Improved road accessibility: There has been a significant improvement in road conditions from the Garissa-Hola and Garsen-Malindi sections of the road in terms of accessibility, except for some northern sections which were destroyed by El Nino in 1997. These sections were previously largely inaccessible during rainy season. According to NYS, road users have benefited from shortened time and operating costs saved by increased accessibility. However, the Hola-Garsen section is unpaved and remains largely inaccessible during rainy season.

(2.3.2)

Increased traffic volume: The section extending northward to Garsen has not been as heavily utilized as expected, partly because the incomplete section of Garsen-Hola has become an obstacle to accessing the northern paved section of Hola-Garissa, and partly because the whole northern area has become insecure since the border confrontation with Somalia: vehicles have been looted by local armed guerillas. Currently the section extending northward to Garsen

remains inaccessible for security reasons, and reliable traffic data are not available.

On the other hand, road traffic in the southern section to Garsen is busier, because there are more towns and villages along the road and land is cultivated for agricultural production. The traffic volume increases as the road goes south to Malindi, a major intersection with the coastal trunk road leading to Mombasa, the second largest town in Kenya.

Table 1: Volume of Traffic/ Garsen-Malindi (vehicle /day)

	Passenger Car	Light Truck	Medium Truck	Heavy Truck	Bus	Total
1985	169	306	131	16	42	664
1987	40	221	157	24	36	479
1989	154	221	138	22	39	574
1991	146	192	193	14	39	585
1997	575 (62)	750 (237)	132 (121)	99 (124)	30 (18)	1,586 (562)

Source : NYS
Note : All traffic is reported from a point 1km north of Malindi, except figures within parenthesis reporting traffic volume in northern point of Malindi.

(2.3.3)

Economic Performance: The re-calculated EIRR was 3.6 %, lower than the original EIRR at the time of appraisal of 9.9% (Project I) and 8.6% (Project II). The re-calculation was made based on the costs and benefits of both projects as per assumptions below. The reduction in EIRR is largely attributable to the incompletion and delay of originally planned sections of the project.

(Main Assumptions):

Project Life : 20 years.
Benefits : Savings in Vehicle Operations Costs (VOC) as reported by NYS
Costs : Investment Costs for Projects I and II and O&M Costs (estimates) as reported by NYS

2.4. Impacts

(2.4.1)

Increased Economic Activities: It is reported by NYS that the project opened up the market centers along the road, which caused the local population move to the centers seeking for better earning opportunities and social services. Agricultural products reach the major markets such as

Malindi and Nairobi much faster than before. The quarries along the road are used by pastoralists as watering points. Also the project trained workers in construction related sectors.

(2.4.2)

Improved Traffic Safety: It is reported by NYS that the improved level of road services reduced the volume of frequent fatal accidents on the road, and thereby increased road safety.

(2.4.3)

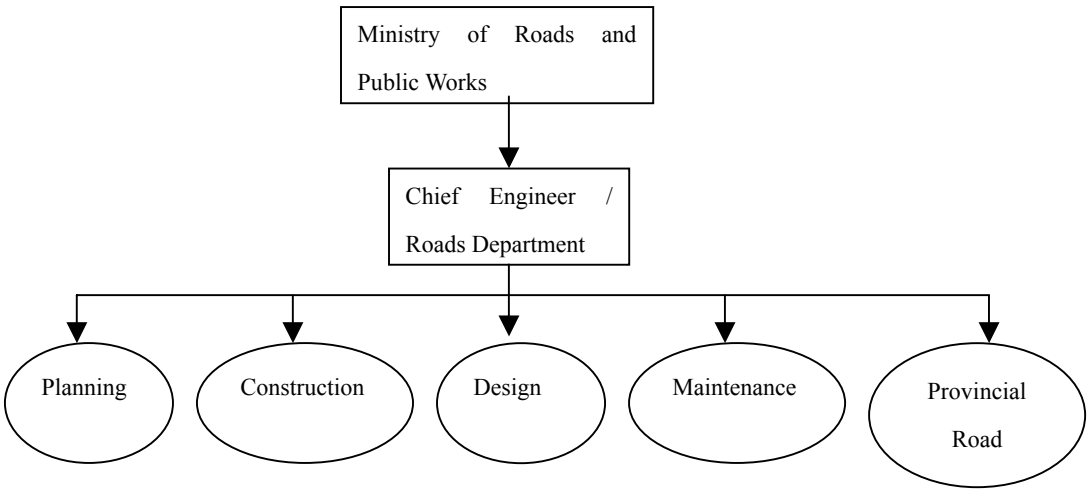
Environmental Impacts: Since the project was implemented largely on the existing road, and the traffic volume, though it showed an increase, was not big enough to have a serious influence on the environment, the negative impacts on the environment were reportedly considered to be low.

2.5. Sustainability

(2.5.1)

Operation and Maintenance: Once the road is completed, NYS is supposed to transfer O&M responsibilities to the Ministry of Roads and Public Works. So far, only the Garsen-Malindi section has been handed over to the Ministry. Garissa-Hola and Hola-Garsen are still under the auspices of NYS. They will be handed over to the Ministry once the Hola-Garsen section is completed.

Organization structure of Ministry of Roads and Public Works



Currently, the O&M works have not been handed over to the Ministry and some minimal level

of routine maintenance is conducted by NYS. However, NYS volunteers generally lack professional level of road maintenance skills. Once handed over, the Ministry, with organization structure as indicated above, is expected to provide O&M personnel with adequate qualification and training. As in other road sites, the Ministry is expected to use local private contractors for major routine and periodic maintenance once they are in charge of O&M. Since there is no data available, it is not confirmed if the Ministry allocates necessary budget for such O&M work by local private contractors.

(2.5.2)

Road Management Issues: The Government is taking measures to restore transparency, accountability and professionalism in the roads sector. The measures include: strict and transparent contracting procedures; quality inspections; prompt auditing and accounting for road maintenance funds; improved payment and disbursement systems; strict adherence to specified standards; strengthening the capacity of implementing agents; and blacklisting defaulters and non-performing contractors.

Comparison of Original and Actual Scope

[Project I]

Items/Activities	Original Scope (At time of Appraisal)	Actual Scope
(1) Project Scope		
1. Equipment and machinery for construction works for:		
Garissa-Garsen	223km	
-Civil work		110 km completed
-Subbase course		80km from Garissa completed
-Base course		14km from Garissa completed
Garsen-Malindi	105 km	0 km (0% completed)
Garsen-Lamu	100 km	0 km (0% completed)
2. Consulting Services		
Tendering Assistance Maintenance of machinery Training of NYS staff Supervision	n.a.	n.a.
(2) Implementation Schedule		
Construction / rehabilitation of		
Garissa-Bura	Jan 1983-Apr 1984	Oct 1983-June 1987
Bura-Garsen	Jan 1983-Oct 1984	July 1987-89
Garsen-Malindi	Oct 1984-Sep 1985	Never realized
Garsen-Lamu	Sep 1985-June 1986	Never realized
(3) Project Cost		
Foreign currency	6,100 million yen	6,057 million yen
Local currency	10,160 million yen	4,713 million yen
Total	16,260 million yen	10,770 million yen
ODA Loan Portion	6,100 million yen	6,051 million yen
Exchange Rate	1 K£ = 508 yen	

Comparison of Original and Actual Scope

[Project II]

Items/Activities	Original Scope (At time of Appraisal)	Actual Scope
(1) Project Scope		
1. Construction of two lane, bituminous surfaced road for the following sections:	6.5 meter each lane all weather simple surfacing	6.0 meter carriageway
(i) Garissa-Hola Section,	129 km	
-Civil work		118 km completed
-Subbase course		113km completed
-Pavement		110km completed
(ii) Hola-Garsen section	94 km	
-Civil work		26km completed
-Subbase course		24km completed
-Base course		25km completed
-Pavement		19km completed
(iii) Garsen-Malindi section	105 km	
-Pavement		105 km completed
2. Consulting services (Supervision, T/A, Tender Assistance, etc.)	382 M/M	n.a.
(2) Implementation Schedule		
Selection of Consultant	-Oct 1990	As planned
Procurement of Materials/Parts	July 1990-March 1991	As planned
Garissa-Hola -Construction	Oct 1990-Oct 1994	As planned
Hola-Garsen -Tendering	Oct 1990-Oct 1991	1991-1995
/Garsen-Malandi -Land Acquisition	April-Oct 1991	Jan 1994-July 1994
-Construction		
Hola-Garsen	April 1992-April 1995	Sept 1995-suspended
Garsen-Malindi	Oct 1991-Oct 1994	Sept 1995-March 1999
Consultancy	Oct 1990-April 1995	Oct 1990-suspended
(3) Project Cost		
Foreign currency	4,133 million yen	n.a.
Local currency	3,541 million yen	n.a.
Total	7,674 million yen	n.a.
ODA Loan Portion	6,523 million yen	6,519 million yen
Exchange Rate	1 Ksh = 7.11 yen	