



International Conference on the Great Lakes Region

Regional Programme of Action for Economic Development and Regional Integration

Project No. 3.3.2

Trans-African Highway: Mombasa - Lagos

October 2005
As amended 30 August 2006
Original Version: French

Background

Africa is poorly serviced with roads. The road density is on the average 5 km per 100 square km, which is low when compared with other developing regions, such as Latin America and Asia with 12 km and 18 km respectively. This difference is partly the result of different levels of development in general, but it also reflects the basic geographic fact that Africa is a very large continent, often with vast distances between the main population and production centres. Connecting the different parts of Africa through road networks is thus, in the best of circumstances, a Herculean task.

Decades of under capitalization, poor management and general neglect of the railways have propelled road transport to the most important means of transport in Africa, by far. Road transport accounts for over 80% of all freight and passenger movements in Africa and there are no signs that this position will be threatened during a foreseeable future.

At the time of independence, Africa inherited transport and communication structures that were outward looking rather than geared to improved trade and transport with neighbouring African countries. One of the early goals of the independent African nations was to break this pattern of dependence and create new, closer African ties. The formulation of the Trans African highways programme (TAH) concept in 1970 forms an integral part of this political vision of closer pan-African integration and co-operation.

The work on integration and increased co-operation in Africa has in many ways been a slow and painful process. However, the establishment by the African Union of the NEPAD have provided new encouragement as well as concrete proposals for actions in the fields of African integration and co-operation. African countries are expected to focus on the expansion of roads and road transport in the future, both at national and sub-regional levels as a basis for regional co-operation and integration.

Situation Analysis

The Lagos-Mombasa Trans African Highway, provides a road connection between the East African port of Mombasa with the ports of Nigeria and Cameroon in West and Central Africa. Thus, it provides access to most of the landlocked countries of Central Africa. The flow of traffic along this highway and the condition of different sections of the road reflects the limited trade between East and West Africa.

The Highway consists for all intents and purposes of two separately functioning sections :

- One connecting the landlocked countries around the Great Lakes with the East African Coast;
- The other providing access from the Atlantic Coast to north-western DR Congo and the Central African Republic.



The highway has a total length of about 6260 km of which about 53% are paved, in various conditions (38% in good condition), with the remainder as either gravel or earth (see table below).

**MOMBASA-LAGOS TRANSAFRICAN HIGHWAY
Distances in Km**

	Total length	Paved	Gravel	Earth
Kenya	902	902	0	0
Uganda	696	696	0	0
D R Congo	1561	0	0	1561
CAR	1319	465	502	352
Sub-Total (within GLR)	4478	2063	502	1913

Nigeria	737	737	0	0
Cameroun	1044	513	0	531
TOTAL	6259	3313	502	2444

The main importance of the Highway is that it provides the most direct connection to Mombasa for Uganda and the most convenient road connection to that port for Rwanda, Burundi and eastern DR Congo. One of the underlying visions of the TAH network was that it would act as an integrating and cohesive force between the countries, on a continental scale. This has partially been achieved, but primarily on national and sub regional levels.

Physical Conditions

The Lagos-Mombasa Corridor starts in Nigeria and passes Cameroon, Republic of Central Africa, Democratic Republic of Congo, Uganda, and ends in Mombasa in Kenya. Nigeria and Cameroon are, however, not part of the Great Lakes area. The different sections of this corridor is characterised by paved roads in a good or fair conditions in the Eastern and Western sections of the Corridor, with poor or non-existing sections in the centre.

Nigeria

The TAH-link within Nigeria starts in Lagos, following the Algiers-Lagos Corridor for approximately 60 km. From Lagos to Enugu, a section of 550 km, the highway consists of a dual carriageway with 2 times 7,3 m carriageway and shoulders of 2,75 + 1,0 m along each carriageway. The remaining link to the Cameroon border consists of a single 7,3 m wide carriageway with 2,75 shoulders.

The entire section from the junction with the Alger-Lagos highway to the Cameroon border, 577 km, represents all three levels of pavement conditions. 139 km (21%) are in good condition, 352 km (52%) are in fair condition and 186 km (27%) are in poor condition. Most of the sections are planned for periodic maintenance on a yearly basis, if funds are available.

Cameroon

The Highway transverses Cameroon from Ekok in the west to Garoua Boulai in the east via Mamfé, Bamenda, Bafoussam, Banyo, Tibati and Meidougou. According to CEEAC/CEMAC, an alternative route going from Bafoussam down south to the capital Yaoundé and connecting to the Tripoli-Windhoek Corridor in Bertoua, south of Garoua Boulai is considered more advantageous. It links the Lagos-Mombasa Highway with Yaoundé, Cameroon's capital, and approaches Douala, the most important port in the subregion. Moreover, this road is already entirely paved.

CEMAC's first priority road network includes the link Douala-Yaoundé-Bertoua-Garoua Boulai, but not the link Bafoussam-Banyo-Tibati.

Central African Republic (CAR)

The CAR has adopted CEMAC's first priority road network as its first national priority.

The link from Garoua Boulai on the border with Cameroon to Bouar-Baoro-Bossemptélé-Yaloké-Bossembélé to Bangui and further east to Bangassou is considered as first priority road according to CEMAC. It is the major route from the port of Douala in Cameroon to the CAR, and it constitutes a main link even in a national context, as it transverses the country from west to east.

The section from Garoua Boulai to Baoro (215 km) is not paved yet and in poor condition. The rehabilitation of the first section Garoua Boulai-Bouar will soon be executed, as the studies are accomplished and tendering for the construction works have been completed. Financing has been obtained for the feasibility study of the section Bouar-Baoro, and rehabilitation and paving should be completed soon. The section Baoro-Bossemptélé (89 km) is not paved but reported to be in good condition. Paving is planned for 2006. The section Bossemptélé-Yaloké-Bossembélé-Gangui (291 km) is entirely paved and was recently rehabilitated in 1999. However, degradation has already severely affected the section, and routine maintenance is required in order to avoid complete deterioration. The works are estimated to 150 million FCFA , equivalent to some US \$ 220,000.

The continuation from Bangui to Sibut (186 km) is paved and in good condition. The section Sibut-Bambari (198 km) is a gravel road, and funding for the paving of this section has been sourced since 2002.

The road from Bambari to Bangassou is an earth track in poor condition. No works are currently planned.

The CAR has also 2 feeders to this road, one on the north (N'djamena – Sarh – Sido – Kaga Bandora – Sibut), and in the south (Baoro – Carnot – Berberati). The feeders are not paved.

Democratic Republic of Congo

The section in DRC starts in Ndu, at the river Mbomou, opposite of the town of Bangassou (CAR). The river is crossed by ferry. An earth track goes from Ndu to Monga-Bondo-Dulia, reaching a more travelled road heading to Buta and Kisangani. The earth track from Ndu to Dulia has a length of 330 km and is interrupted by two rivers that have to be traversed by ferry. The distance from Dulia to Kisangani is 395 km. The administration in charge of the management of that road was not in a position to give further details on the physical section of it.

Due to the virtual inexistence of a practicable road link between Bangassou and Dulia, there is no long distance traffic between the CAR and Kisangani.

The road administration in Kinshasa has indicated that the earth track from Ndu to Dulia has no function as it transverses a sparsely settled area and they have proposed an alternative alignment for the Lagos-Mombasa Highway. It would start opposite Bangui in Zongo and lead to Bemena-Lisala-Bumba and join the original alignment in Dulia. The alternative has the advantage that it goes through an area with intense agricultural activity, that the road is in a better condition than the earth track and that only one ferry service would remain.

From Kisangani the road continues eastwards to Beni (756 km) and further on 80 km to Katwe, which is the border station with Uganda.

The entire section of the Highway in the DRC is an earth road, except a few kilometres around Kisangani. The physical condition of the road in 1990, when the administration in Kinshasa still had control over the area, was poor, and it is unlikely that the situation has improved.

Uganda

The entire road link from the border crossing to DRC at Kasindi to the border crossing to Kenya at Malaba, consists of 696 km paved road. The pavement is recorded as 98 km in good condition, 141 km in fair condition and 457 km in poor condition. The information about the pavement condition is from the year 1998.

Kenya

The Kenyan part of the TAH-link passes developed areas and supports 900 to 4000 vehicles per day. The amount of heavy vehicles is very high with a lowest figure of 34%, and reaching up to 70%.

The entire section of 902 km is paved, but shows much varying pavement conditions. 25 km of this link follows the Cairo-Gaborone link. From the remaining section of 877 km, only 171 km (20%) are in good condition, whereas 389 km (44%) are in fair condition and 317 km (36%) are in poor condition. Many parts of the link are subject to proposed feasibility studies. Rehabilitation work is going on in most sections.

Considering the high heavy vehicles traffic, the width of the carriageway of 6,5 m represents a rather low standard.

Responsibility for and Management of the Highway

The management and coordination of this corridor at a multinational level is that provided for by the REC's of the sub region, i.e. ECOWAS, COMESA, EAC and the Northern Corridor. The Lagos-Mombasa Highway also had its own multi-lateral Highway Authority established at Bangui in the early 1980s. This Authority was given substantial powers, but functioned only for a limited period and was disbanded at the end of the 1980s.

The REC's have taken an active role in the planning and programming of the road networks of the member countries. Each of the RECs, as well as the individual

member countries, have their own set of high priority roads. These priorities have however, not been established in isolation but rather after consultations and discussions with all parties involved at both national and sub-regional levels. There is thus a high degree of agreement as to the network of main international road links of importance in each of the sub-regions. It is apparent that the work on determining the core network of road connections has involved the whole of the main networks and has not in any way been directed exclusively towards the Trans African Highways.

Although the work done by RECs provides the framework for the development and investments in the road sector, it is the responsibility of each country to manage the implementation, including funding, contracting, supervision and maintenance. The very high degree of dependence on outside funding, with the exception of the Highway sections in Nigeria and to some extent in Kenya, the donors have had an important, if indirect, influence on the condition and future development of the Lagos-Mombasa Highway.

Axle Load Control

The main problem in the road sector is poor maintenance standards, a fact aggravated by high axle-loads resulting from the common over-loading of trucks. This inability of the countries to properly control the total weight and axle-load of heavy vehicles has serious consequences for the whole road transport industry

Other Modes of Transport

The Eastern section of the Lagos-Mombasa Corridor is provided with both railway and oil pipeline transport services. These supplementary modes of transport lessens to some degree the load on the roads by heavy vehicles with considerable damaging effect on the road network.

Pipeline

The oil pipeline extends from Mombasa to Eldoret and Kisumu (on Lake Victoria) and has a throughput of 4-5 million tons a year. Distribution from Eldoret and Kisumu to many locations in Uganda, Rwanda, Burundi and DRC is basically by road.

Kenya-Uganda Railway

Over the last few years about 2 million tons/year have been transported by rail. There has been considerable problems increasing the transport volumes, partly because of a poor state of repair of the rails and inadequate availability of motive power and rolling stock. The railway is also in an urgent need for organisational and managerial reform, and a concessioning effort is on going for the two railways. However, the Corridor has encouraged operational improvements, like the introduction of block trains that have considerably improved the utilisation of the railway for Ugandan goods, albeit from a very low level. As a consequence the railway carries a relatively modest portion of the total transport volumes of the Corridor (some 16% of the total Kenyan export and import and 33% of the Ugandan cargo through the port of Mombasa).

Road Sector Operations

As mentioned above the actual road operations are handled by the road administrations of the respective countries. The systems for road management varies somewhat from country to country with some countries, like Nigeria, retaining the more traditional set up, with a Department of Roads forming an integral part of a ministry (Ministry of Works) and with funding provided under the consolidated central government budget. Other countries have started the process of creating semi-independent organisations for the management of roads and the funding of at least parts of the road activities. This reform process is strongly supported by the RECs but not fully implemented in most countries. A case in point is Kenya which has an independent Road Fund, while the road management operations remain within the Ministry of Roads.

The trends in the operational field (road design, construction and supervision) are a bit more consistent in the sense that in most counties there is a clear move to employ the services provided by the private sector, through consultants and contractors for the design, construction, rehabilitation and maintenance activities. There is still some force account activities going on but the trend is towards a steady increase in the private sector involvement in this field.

Strategy and priorities

The strategies employed and priorities established for the TAH network of highways amounts to a combination of strategies and priorities established at both national and REC levels. In the case of the Lagos-Mombasa Highway this means the positions taken by COMESA, EAC and the Northern Corridor as far as the Eastern sections of the road are concerned (Mombasa to eastern DR Congo) and ECOWAS and CEEAC for the Western sections (from DR Congo to Lagos). The national priorities tend to coincide or to be closely related to those formulated by the RECs, which is also the case for this Highway.

Funding

Corridor programming

ECOWAS includes the western sections of the Lagos-Mombasa Highway in its sub-regional network of high priority roads. COMESA, EAC and Northern Corridor has in a similar fashion included the eastern sections of the Highway in their long term plans for key roads in the development of the sub-regional road network.

Sources of financing

In the countries of the Lagos-Mombasa Highway the funding of road sector activities is arranged along the following main lines :

- a) External assistance sources for road construction, rehabilitation (and to some degree also for period maintenance purposes);

- b) Central government financing of counterpart funds and the construction, rehabilitation and period maintenance work not covered under the different external assistance programmes; and
- c) Road Fund for road maintenance in general and a routine maintenance in particular.

Although these three main sources of funding are all employed in the countries concerned their actual importance and availability varies greatly from country to country. The road sector activities in Nigeria and Kenya are highly depending on locally generated funds, with the Nigerian roads fully funded under the federal consolidated budget, while the Road Fund plays an important role for the upkeep for the Kenyan road network (the level of external assistance to improvement and rehabilitation projects is far below requirements). For countries like Uganda, DR Congo and the Central African Republic external funding sources play a central role in the road sector.

A common condition in all countries is the fact that the funds made available for the road sector is inadequate to meet maintenance and rehabilitation requirements. Very limited funds are at present made available for the maintenance of the federal road network of Nigeria, 259 million Naira (USD 2,2) compared to the 70 billion Naira set aside for development purposes annually during the last few years. This means that no periodic maintenance is possible shortening the life span of roads and increasing the demand on road rehabilitation measures. In Kenya some USD 110 million are collected each year. It is estimated that this amount is adequate to cover the annual road maintenance requirements. However, with a USD 1 billion rehabilitation backlog, some of the Road Fund resources are set aside for the most pressing rehabilitation needs (avoiding asphalt roads to deteriorate beyond repair). The result has been a shift in the funding deficit to the area of periodic maintenance, particular the periodic maintenance of gravel roads.

Missing links

To be considered a missing link should fulfil the following criteria: being non-existent as a road with all-weather standard or with standard far below the minimum standard for the current traffic flow. Neglected road maintenance does not qualify for being a missing link. Thus poor sections with acceptable, yet too narrow road width are not listed as missing links. Gravel roads are included in the list of missing links, as they are meant to be upgraded sooner or later to fulfil the requirements of an international road.

In this regard the total length of the missing links on the Lagos –Mombasa road is some 2946 km of which 531 of earth tracks are in Cameroun and 2415 km are in the two countries of the Great Lakes area, as follows:

- Central Africa Republic -- 854 km of Gravel sections or earth tracks; and
- Democratic Republic of Congo—1561 km of earth tracks or improved roads impassable in bad weather (entire link except for a few kilometers around Kisangani).

The details of the missing links are given in the table below :

Section	Length	Type of pavement			Condition of Pavement			Upgrading	
		Gravel	Paved	Earth	Good	Fair	Poor	Up to minimum recommended standard	
								Description	Cost
	Km	km	km	km	km	Km	km		USD Million
Cameroon									
Ekok-Mamfé	82			82				New road	35
Mamfé-Bamenda	123			123				New road	
Foumban-Tibati	326			326				New road	
Summary	531	0	0	531	0	0	0		215
CAR									
Garoua Boulai-Bouar*	155		155				155	Improvement	30
Bouar-Baoro*	60		60				60	Improvement	12
Baoro-Bossemptélé*	89		89	89				Improvement	18
Sibut-Bambari	198		198			198		Improvement	40
Bambari-Bangassou	352			352			352	Improvement	140
Summary	854	0	502	352	89	198	567		240
DR Congo									
Bangassou-Bondo	200			200			200	New road	80
Bondo-Dulia	130			130			130	New road	50
Dulia-Buta	74			74			74	New road	30
Buta-Kisangani	321			331			321	New road	130
Kisangani-Nia Nia	342			342			342	New road	135
Nia Nia-Mambasa-Komanda	289			289			289	New road	115
Komanda-Beni	125			125			125	New road	50
Beni-Katwe (Uganda)	80			80			80	New road	30
Summary	1561	0	0	1561	0	0	1561		620
Total Lagos-Mombasa	2946	0	502	2444	89	198	2128		1075

In addition to these, the roads linking Republic of Congo and Chad to Central African Republic respectively (not part of the Northern Corridor) should be added to fully link the GLR countries in Central Africa.

* Financing secured from Japan and other sources-work delayed because of conflicts.

The main activities required along the Lagos-Mombasa Corridor are thus concentrated to the countries of Cameroon, CAR and DR Congo outlined below.

Activity	Responsible Organization	Time
<p>I Missing Links (within country)</p> <p>The requirement for rehabilitation and development along the existing alignment are massive in this corridor. Economic conditions in the short and medium term will not make it possible to rehabilitate/improve all or even most of the missing links in the short and medium terms (even with considerably increased external assistance funding). The main task must be that within established priorities for the development of the road networks determine the role and urgency of the different links of this TAH corridor (taking into account the proposals for alternative alignments discussed under III below)</p>		2004-05
<ul style="list-style-type: none"> • Mamfé-Bamenda (123 km) • Fouban-Tibati (326 km) 	Government of Cameroon	
<ul style="list-style-type: none"> • Bondo-Dulia (130 km) • Dulia-Buta (74 km) • Buta-Kisangani (321 km) • Kinsangani-Nia Nia (342 km) • Nia Nia-Mambasa-Komanda (287 km) • Komanda-Beni (125 km) 	Government of DR Congo	
<p>II Missing Links (Border Connection)</p>		
<p>The missing links mentioned below are located on either side of the border and should be included in the process mentioned under I above, preferably as a joint effort</p> <ul style="list-style-type: none"> • Bambari-Bangassou (352 km) • Bangassou-Bondo (200 km) 	Governments of CAR and DR Congo	2004-05

<p>The missing links mentioned below should be included in the process mentioned under I above.</p> <ul style="list-style-type: none"> • Ekok-Mamfé (82 km) • Garoua-Boulaï-Bouar (155 km) • Beni-Katwe (80 km) 	<p>Government of Cameroon</p> <p>Government of CAR</p> <p>Government of DR Congo</p>	<p>2004-05</p>
<p>III. Changes / Extension of Alignment</p>		
<p>Alternative alignments are being discussed for the location of the corridor in Cameroon, CAR and PR Congo. The questions about how to handle these alternatives alignments should be initiated at Regional and Sub-Regional levels.</p>	<p>ECA and concerned RECs in co-operation with the Governments of Cameroon, CAR and DR Congo</p>	<p>2004-05</p>

General observations

The very large amounts of funds required to complete the Highway and the relative lack of investment funds for major infrastructure development initiatives makes it difficult to source funds for the missing links. Priority at the country, subregional and regional basis must be given to least cost solutions and projects with limited total costs. And there is need for workshops to be convened by various Governments to create awareness for the private sector on the new PPP funding arrangements such as BOT and BOOT in order to achieve greater private sector participation. There is however, a need for common definition of routine and periodic maintenance as well as for rehabilitation and new construction.