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**THE THIRD AND FINAL EVALUATION REPORT ON SECOND  
UNITED NATIONS TRANSPORT AND COMMUNICATIONS DECADE  
IN AFRICA (UNTACDA II), 1991-2000**

**THE EVALUATION REPORT  
ON  
RAIL AND RAILWAY TRANSPORT SUB-SECTOR**

September 2001

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## **UNTACDA II FINAL EVALUATION REPORT**

### **RAILWAY SUB-SECTOR**

#### **EXECUTIVE SUMMARY**

Rail transport has been the most important mode of transport that has contributed a lot to the development of African countries for over 100 years. Because of their strategic importance, their economic role, the number of employees, and the importance of their assets, railways have remained under public ownership and management all these years.

Recently these public owned and managed railways have witnessed a decline of their financial performance and share of traffic due to the spectacular development of road transport.

As public enterprises managed by government appointed officials with public service mentality African railways are overstaffed inefficient and expensive mode of transport.

Their institutional and legal status hindered them from functioning as profit oriented commercial entities that could compete with other modes effectively.

Consequently governments could no longer bear the financial burden to cover the deficits arising from poor management of railways. So they took measures to revise their policies and restructure the railway enterprises in such a way as to make them commercially oriented, competitive, and financially viable.

In effect, during the Decade, most African governments have taken measures to liberalize the transport market and make the railways compete with other modes by lifting government intervention in the management of the enterprises to the extent of even creating conducive environment for private sector participation.

Now restructured railways are free to streamline their manpower, fix their tariff, and improve their service to satisfy the need of their customers. They have to improve the availability of rolling stock by improving the quality of maintenance of equipment, infrastructure, and signaling and communications equipment in order to improve availability, safety and reliability of rail transport.

Utilization of rolling stock has improved by the application of modern computerized information management systems like RailTracker and Rolling Stock Information Systems (RSIS) that provide information on the location and status of rolling stock at any given time.

The participation of the private sector in the railway sub-sector is a new phenomenon registered during the Decade programme. This participation took different forms such as:

- Management contract
- Lease
- Concession
- Build Operate Transfer (BOT)
- Build Operate and Own (BOO)

So far concessions are the most popular form of private sector involvement in Africa south of the Sahara. For example Cameroon, Gabon, Mali, Senegal, Ghana, Malawi, Zambia, Burkina Faso Cote d'Ivoire etc... have signed concession agreements with the private sector to operate the whole or part of railway activities and to invest in the rehabilitation of equipment and infrastructure.

Another positive development is the interest of Sub-regional organizations and their involvement in the development of transport and communications sector in their respective sub-regions.

For example, in SADC Protocol on Transport, Communications, and Meteorology article 7.1 defines the objectives of the railway sub-sector in these general terms

*Member states shall facilitate the provision of a seamless, efficient, predictable, cost effective, safe and environmentally friendly railway service, which is responsive to market, needs and provides access to major centers of population and economic activity*

In application of the provisions of the Protocol, the sub-region is taking measures towards:

- The standardization and harmonization of operation procedures, maintenance standards, safety standards, standardization of technical characteristics of equipment and infrastructure,
- Interconnection of the countries in the sub-region by rail in order to open up landlocked countries and promote intra- regional trade exchanges
- Elimination of all barriers that impede the free movement of goods and services including railway equipment.
- Encourage investments in the railway sub-sector.

In the future these organizations should play a leading role in the pursuit of the goals and objectives of the Decade programme, because it falls under their mandate and they are supposed to have the necessary resources in terms of organization, budget and manpower.

Cooperation between the Union of African Railways, ECA, and the sub-regional organizations is the key to the future growth of the railway sub-sector in Africa.

One of the crucial problems of African railways is the lack of trained manpower in the commercial and technical fields. This problem should be given top priority if the restructured railways should succeed to bring about the expected results. During the coming years national and regional training institutions should be strengthened and be in a position to produce the necessary qualified manpower both in number and quality.

At least one training center should be established in every sub-region for high and middle level management staff, and for training of trainers.

African governments should pull their resources and establish railway equipment manufacturing plants in every sub-region with different and complementing equipment in each region. In this way every sub-region will create its own industrial base and at the same time benefit from economy of scale by supplying throughout the continent.

The implementation of projects in the railway sub-sector is satisfactory despite the inadequacy of the implementation mechanism of the Decade programme, that was cumbersome and not provided with the necessary organization and resources of its own.

Structural adjustment programmes carried out in many African countries during the Decade programme have indirectly contributed to this result.

In the future sub-regional organizations, along with member countries, should take the lead in strengthening the Transport and Communication sector in order to optimize its contribution to the physical integration of the region, and its support to the development of the other sectors of the economy.

## **ACRONYMS**

<b>BOO</b>	<b>Build, Own, Operate</b>
<b>BOT</b>	<b>Build, Operate and Transfer</b>
<b>CEAO</b>	<b>Communaute Economique d’Afrique Occidentale</b>
<b>COMESA</b>	<b>Common Market for East and Southern Africa</b>
<b>ECA</b>	<b>Economic Commission for Africa</b>
<b>ECOWAS</b>	<b>Economic Community of West African States</b>
<b>ESACC</b>	<b>Ecole Supérieure Africaine des Cadres de Chemin de fer</b>
<b>RMC</b>	<b>Resource mobilization Committee</b>
<b>UAR</b>	<b>Union of African Railways</b>
<b>UMA</b>	<b>Union du Maghreb Arabe</b>
<b>UNDP</b>	<b>United Nations Development Programme</b>
<b>UNTACDA</b>	<b>United Nations Transport and Communications Decade for Africa</b>

## **UNTACDA II EVALUATION REPORT**

### **RAILWAY SUB-SECTOR**

#### **INTRODUCTION**

##### **Background**

Rail technology was the first advanced mode of transport introduced in Africa towards the end of the 19<sup>th</sup> and the beginning of the 20<sup>th</sup> centuries.

At the beginning railways have made enormous contributions to the economic development of African countries particularly in supporting the foreign trade exchange with the outside world and the exploitation of natural resources.

African railway networks were constructed by the European colonial powers according to their respective standards and technical characteristics, which is reflected in the heterogeneous nature of African railways. They have different gauges, couplings, brake systems, and buffers inherited from the past. Since independence African countries (with few exceptions) have undertaken no major modernization measures to change the technical characteristics of the rolling stock or the infrastructure in order to facilitate interconnection with neighboring networks

Upgrading and modernizing the existing railway lines would involve major investments in track realignment, signaling, safety systems and rolling stock, which is beyond the capacity of the African states.

Since the beginning railways have enjoyed a monopoly for long and medium distance transport of goods and passengers along the railway line. This state of monopoly has been put into question in many countries following the spectacular development of road transport that transformed the market profoundly.

Railway enterprises have not been able to adapt in time the form of services and their means of production to the changes brought about by road transport development. Their share of the market as well as their financial performance continued to decline.

This situation forced African governments to review their policies and the economic role of the railways in light of the new competitive transport market.

It is against this background and the poor performance of the transport and communication sector as a whole that African governments requested the General Assembly to proclaim a United Nations Transport and Communications Decade in Africa in order to focus attention on the special needs of transport and communications in Africa. This request was endorsed by the Economic and Social Council at its meeting in July 1977 and the United Nations Transport and communications Decade in Africa covering the period 1978-1988 was officially proclaimed by the General Assembly of the United Nations in December 1977.

At the end of the Decade program a thorough evaluation was made and many lessons learnt regarding the overall development of the sector and the constraints which continue to hamper

the achievement of its goals. The evaluation of the implementation of the entire program showed that, despite the efforts made by African Governments and donors, the existing transport and communications systems in Africa are still far from adequate to promote African economic development and will continue to constitute major constraints on the overall economic integration and development of the region. This prompted the African governments once again, to request the United Nations General Assembly to proclaim a second United Nations Transport and Communication Decade in Africa (UNTACDA II) to continue focusing African as well as international attention on the needs for development of this sector in Africa. Thus, by its resolution 43/179 of 20 December 1988, the General assembly proclaimed UNTACDA II for the period 1991-2000. Two years -1989 and 1990 - were set aside for a thorough and more careful preparation of this program.

The objectives of UNTACDA were to establish an integrated transport and communications system throughout the continent, for the purpose of supporting the development of key sectors such as agriculture, mining, energy, industry and trade. In this connection the necessary mechanisms of implementation at national, sub-regional and regional levels were created. The bottom-up approach was retained.

To ensure the flexibility of the Decade programme it was provided that periodic evaluations take place within the ten years in order to take in time, the necessary corrective measures. Three evaluations, one in 1994 another in 1997 and a third and final evaluation in 2000 were provided for.

This is the third and final report on the evaluation of the Decade program as stipulated in the mechanisms of implementation, regarding railway transport sub-sector.

### **Methodology**

1. The report is based on desk studies of:
  - The third evaluation national reports
  - Review of relevant data available at ECA such as: UAR year book, railway conferences and seminar documents, World Bank documents...etc
  - Various reports and documents of different origins
2. Discussion with knowledgeable people in the field



## **Presentation of the report**

The report is presented as follows:

Executive Summary

Acronyms

Introduction

Chapter I	Current status of African railways
Chapter II	Status of implementation of railway projects
Chapter III	Problems and difficulties experienced
Chapter IV	Implementation of sub-sectoral objectives and targets
Chapter V	Impact of UNTACDA II in the development of transport
Chapter VI	Implementation of the framework approved by the Conference of Ministers in 1997
Chapter VII	Proposals for future actions
Chapter VIII	Conclusions and Recommendations

Annexes

# CHAPTER I

## CURRENT STATUS OF AFRICAN RAILWAYS

### A Coverage

The aggregate network of African railways is estimated at 89,380 km for an area of 29.6 million sq.km. This represents an average density of 3.1 km/ 1,000 sq.km. Compared to 400km/ 1,000 sq.km for Europe the railway density of Africa is insignificant.

The sub-regional distribution of the railway network is as follows:

North Africa –19931 km  
West Africa - 9717 km  
Central Africa –2526 km  
East Africa 6687 km  
Southern Africa 51119 km

16 African countries do not have either a national railway line or a section of international railway line.

The national railway networks in Sub Saharan Africa are mostly independent of each other except the eastern and southern African rail systems, Burkina Faso/ Cote D'Ivoire, Senegal/ Mali and Ethiopia/Djibouti networks.

### B Technical characteristics

Here below some technical characteristics of African railways:

#### *Gauges*

There are 9 different gauges in use in Africa out of which three are commonly used:

1.067m representing 61.3 % of the African networks  
1.000m representing 19.2 % of the African networks  
1.435m representing 14.5% of the African net works

The 1.067 m gauge has been adopted by UAR as standard gauge for Africa in order to facilitate the interconnection of railway networks in the continent. Currently in 23 networks out of 38, this African standard gauge is in use.

#### *Brake systems*

Two brake systems are currently in use in Africa: the vacuum brake and the compressed air brake.

The vacuum brake system is commonly used on railways of West, Central, and East Africa.

The compressed air brake system is used on Northern African railways and in some Southern African railways.

### ***Traction***

Only 6500 km of rail are electrified in the whole of Africa. This electrification is limited to the sections with high density of traffic and the urban areas essentially with commuter service. This concerns the following railways: Egyptian, Algerian, Moroccan railways in North Africa, and South African railways.

The rest of African railways use mainly diesel electric traction.

Steam traction is being progressively abandoned. In some countries it is used for tourism purposes.

### **C Institutional and legal framework of railways**

African railways are state owned enterprises that enjoyed a state of monopoly for a long time for medium and long distance transportation of passengers and goods.

Since the 1970s this state of monopoly has been put in to question because of the development of the road transport mode and the continued decline of rail traffic both in volume and modal share of surface traffic. In most cases railways have not been able to adapt in time the form of services offered and their means of production to the profound changes in the transport market structure brought about by road transport development. Despite increasing competition railway enterprises still behaved like cumbersome and bureaucratic administrations in their relation with customers, which aggravated their financial situations. Hence lack of revenue, low productivity, and over abundant staff led railways to huge deficits that, in the state of crisis facing African economies, public finances could no longer bear. Thus African governments had to adopt strategies to restructure their railway enterprises with the objective to make them more efficient and financially viable.

In most African countries the legal status of the railway companies is being revised within the framework of liberalization measures and State divestiture thus clearing the way for free competition among different modes of transport and creating conducive environment for private sector participation.

The following countries have concessioned their railways: Cameroon, Gabon, Ghana, Malawi, Zambia, Burkina Faso, Cote d'Ivoire (the list is not exhaustive)

The role of governments should be limited to regulatory functions so as to create a level field for competition of the different modes of transport.

In the broadest sense, the mission of the restructured and revitalized railways will be to provide adequate and efficient rail services of goods and passengers by replicating the behavior of a commercial profit-oriented railway enterprise operating under conditions of competition. This means that the railway's approach to services must be demand-driven, customer oriented, market determined, and results-led.

This implies that the railway management is autonomous, free from government intervention in fixing tariffs, adopting personnel policies based on legislation applied to the private sector, free to give commercially profitable services, and to be compensated for public obligation services.

The restructuring programmes have to be combined with an upgrade of infrastructure and equipment to enable the net works to improve quality and reliability of their services.

Though there has not been much improvement in the infrastructure and the equipment, the result of the restructured railway enterprises that have carried out institutional reforms is encouraging, but it is too early to conclude.

## **D Performance of railway enterprises**

### **Rolling stock**

One of the major causes of the decline of railway traffic is the low availability of the rolling stock and particularly of motive power, which causes a drop in transport capacity as well as substantial increase in unit price.

In order to redress this situation the problem of the quality of maintenance and that of the availability of spare parts which is closely related to the situation of foreign currency availability should be given prior consideration.

Another field of improving the productivity of the rolling stock is through the traffic organization particularly the routing by block trains and the monitoring of the turn round of wagons.

In countries that are applying the Advance Cargo Information System (RailTracker) relation with customers and utilization of the rolling stock have improved drastically because of the possibility of tracing cargo and rolling stock position at any given time which addresses the need of customers to know of the whereabouts of their cargo live.

### **Infrastructure**

The vertical and horizontal geometry of the track are factors that limit the speed and the carrying capacity of trains.

Most railway lines are characterized by steep gradients of over 10% and sharp curves of less than 400m.

The rails are old and the weights are light mostly between 25 and 36 kg/m usually not welded. The bridges constructed before World War II were designed for low axle loads.

Signaling and communications equipment are old and unreliable most of the time.

All these characteristics of the infrastructure constitute major constraints on the performance and reliability of rail transport and impede the utilization of modern performing rolling stock that are faster and more powerful.

### **Accidents**

Every year a number of derailments and accidents take place in African railways, due to the poor maintenance of the tracks and rolling stock; causing loss of life and material damage. Cases of Kenya, Ethiopia and Congo could be cited as examples.

## CHAPTER II

### STATUS OF IMPLEMENTATION OF RAILWAY PROJECTS

#### **A Originators**

The number of railway projects updated in 1997 was 89 submitted by nineteen countries and three sub-regional institutions.

Fifteen countries and two sub-regional organisations reported on the implementation status of sixty-three out of a total of 88 projects though not in the format demanded by ECA. This represented 77% of the originators.

For those countries that did not report at all and those that did not reply according to the requested format an effort has been made to find out the status of the projects from different sources and from personal knowledge based on the information of 1997 status in order to give a general picture of the implementation of the Decade program.

#### **B Project implementation**

##### **1 National projects**

**Table 1**

**Status of implementation of railway projects**

Status	Number	Percentage
Fully implemented	36	<b>46</b>
Partially implemented	15	<b>19</b>
Not implemented	28	<b>35</b>
Total	79	<b>100</b>

#### **Project implementation rate**

If the number of abandoned projects is taken out the total number of projects retained in 1997 the number of valid country projects will be 79. Out of these:

Number of fully implemented projects	46%
Number of partially implemented projects	19%
Number of projects not implemented	35%

Assuming that the partially implemented projects are projects that could be completed in time one can assume that the implementation rate of the sub-sector is roughly 65%

Considering the fact that the countries did not get any support from the RMC in the form of resource mobilisation, the prevailing economic conditions and shortage of funds, the level of implementation of the railway sub-sector is satisfactory.

**Table 2**

**Implementation of railway projects by type**

TYPE OF PROJECT	FI	PI	NI	TOTAL
Construction	4	1	3	8
Upgrading	8	4	9	21
Rehabilitation	7	2	1	10
Acquisition of rolling stock	8	3	4	15
Acquisition of other items	2	2	4	8
Management support	2	1	3	6
Studies	6	1	4	11
Total	37	14	28	79

Key      FI fully implemented      PI partially implemented      NI not implemented

The percentage of implementation of rehabilitation projects is 70 % followed by studies 55 % acquisition of rolling stock 53 % and 50 % for construction projects.

This shows that the projects that have direct impact on the improvement of railway services have been better implemented.

Rehabilitation of infrastructure and acquisition of rolling stock improve availability and consequently improve the efficiency of rail transport

On the other hand percentage of implementation of management support projects (33%) is rather low.

**Funding of railway projects**

Total fund required for completion of 79 projects	3723.44 m USD
Total fund mobilised	1898.88 m USD

Percentage of implementation	51.02
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**External fund**

External fund required	2552.24 m USD
Total fund required	3723.44 m USD

Percentage of external fund required	68.5
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The implementation rate of the funding (51.02 %) is low. One of the reasons of this low performance is the dependency on external fund (68.5%) to finance the projects  
Partially implemented projects have been financed up to 63% of their total cost.

In light of the prevailing difficult economic conditions and the failure of the Resource Mobilisation Committee to mobilise funds, the effort of some countries that fully implemented their projects should be appreciated.

**Table 3**

**Implementation of railway projects by sub-region**

Sub-Region	Valid projects	Completed	Partial	Not executed	Abandoned
North Africa	4	1	1	2	1
West Africa	23	9	6	8	2
Central Africa	7	3	2	2	1
East & south Africa	45	24	5	16	3
TOTAOL	79	37	14	28	7
Percentage	100	47	18	35	-----

Eastern and Southern Africa sub-region represented 57% of all the projects and its implementation rate is 53% (fully implemented projects).

It is by far the best implementor of all the sub-regions.

## **2 Sub-regional projects**

Three sub-regional projects were retained for implementation. Out of the three one project presented by UMA has been fully implemented. The other two presented by COMESA and CEAO were not implemented due to lack of funds.

The completed project in UMA countries was funded by own funds of member countries themselves.



## CHAPTER III

### PROBLEMS AND DIFFICULTIES EXPERIENCED

Problems identified by most railways enterprises concerning the implementation of the Decade programme, other than operational, technical, managerial and institutional and financial problems treated elsewhere in this paper are:

#### **Inadequacy of implementation mechanisms**

The implementation of the Decade programme was left on the hands of over 100 committee members who belonged to various organizations with their own attributions and responsibilities for which they are engaged.

This gives the impression that the implementation work is a voluntary service that could be done whenever time is available.

Taking into consideration, the fact that nowadays most institutions are short of funds and the number of their employees reduced to the minimum, one can not expect to relieve people from their regular work and be engaged on some other business out side their organization because of financial and time constraints.

Even at the lead agency (ECA) no additional staff was employed, for the Decade programme which is followed up by the regular staff as supplementary work.

All countries in their reports blamed the Resource Mobilization Committee, for not being able to raise any fund for projects included in the Decade programme. It is true it did not deliver as expected.

UNDP country offices that were supposed to provide ECA with information on projects, national plans and funding secured for implementing national projects, did not fulfil their responsibilities.

At the national level National Coordinating Committees were not created in every country. Even where they were established, they were not given the necessary resources to effectively carry out their activities.

The Decade programme was launched because it was recognized that the transport and communications sector constituted a major constraint on the overall economic integration and development of the continent

Under these circumstances every effort should have been made by African governments to ensure the implementation of such an important programme that has an impact on the economic development and integration of the region.

A full-fledged office endowed with the necessary resources such as budget allocation and manpower should have been established to carry out the implementation of the programmes with the cooperation of relevant institutions.

The organs that were entrusted for the implementation of the Decade programme did not discharge their responsibilities effectively, due to lack of human and financial resources. Committee members belonged to different organizations geographically dispersed, which makes it difficult for committee members to meet, because of time and financial constraints.

### **Lack of financial resource**

All the countries have mentioned lack of financial resource as principal cause for none implementation of projects.

All country reports unjustly blame ECA for not being able to mobilise funds for the implementation of projects included in the Decade programme because of the failure of the Resource Mobilisation Committee to discharge its responsibility to mobilise funds for projects.

### **Lack of security**

The situation of conflict in many countries has adversely affected not only the realization of the Decade programmes, but also led to the destruction of existing infrastructure and equipment.

### **Floods:**

In some countries of southern Africa heavy rains and floods have resulted in the deterioration of the infrastructure and the interruption of transport activity.

## CHAPTER IV

### IMPLEMENTATION OF SUB-SECTORAL OBJECTIVES AND TARGETS

#### A Sub-sectoral objectives

**Long term objective:** Improvement of the operational efficiency of railways so as to increase their financial viability and reduce their burden on national budgets, achievement of acceptable levels of locomotives, rolling stock and infrastructure availability and utilisation rates on the basis of phased programmes agreed for the major national railway systems and also on the basis of contract and corporate plans.

#### **Areas of immediate concentration:**

- a) Restructuring of the railways through appropriate time-phased programmes and ensuring a balance between the number of employees and activities in African railways;

Many African countries have restructured their railways and rationalised the strength of their manpower (see list in I)

- b) Review of technical, operational and commercial studies which have been conducted by inter-governmental organisations UAR and sub-regional organisations in order to ascertain their validity and relevance to the development of railways in Africa, during UNTACDA II and beyond;

Not implemented

- c) Strengthening of existing national and sub-regional institutions for training railway personnel by improving their statutes, reviewing their curricula, training of trainers and by developing their training equipment and facilities, etc.;

Only one sub-regional training centre ESAC is functioning. It has been restructured during the Decade and it has become ESAC-G thus including management courses in its curriculum. The national railway Institute of Kenya has been privatised in order to improve its service.

- d) Establishment, in various railways, of UAR costing model to be derived from recommendations of the sub-Saharan Africa Transport programme (SSATP) costing study;

Some countries have adopted the costing model of UAR

- e) Establishment of management information and data bank systems for railways which do not have them, on the basis of the results and recommendations of SSATP studies;

Some countries are applying management information systems for the use of rolling stock and their utilisation that are giving good results. For example countries like Cameroon, Malawi, Mozambique, Zambia, Tanzania, Kenya, Senegal, Mali, Sudan etc... are applying the Advance Cargo Information System (ACIS)

- f) Increasing the shares of both domestic and long-haul transit traffic through highly competitive marketing systems and service quality measures;

The construction and operation of the private Bitbridge Bulawayo Railway line is contributing to improve the share of international traffic and effectively competing with road hauliers.

- g) Revision of existing railway legislation where appropriate to improve government/railway relationships and allow greater managerial autonomy and accountability;

Many African counties have reformed their railway legislation to make them autonomous and commercially managed. Private sector involvement has also resulted in improvement of operations and accountability.

- h) Promotion of inter-railway working agreements to facilitate the smooth operations of international traffic;

Arrangements exist among interconnected countries in East and Southern Africa and West Africa to facilitate smooth movement of international traffic.

- i) Survey of railway equipment manufacturing in Africa and establishment of regional workshops;

Not implemented

- j) Strengthening of UAR.

No concrete steps have been taken in this area.

## **B    Targets**

As a measure of the success of implementation of the Decade Programmes the following targeted goals and parameters were set.

Unfortunately none of the country evaluation reports, except Malawi and Sudan, included this section in their reports. As much as possible we will try to give some indicators from other sources other than national reports, when ever available.

- a) Rail traffic to increase by 3% for freight and 2% for passengers

In Malawi: International freight traffic increased by	303 %
Domestic freight traffic decreased by	43 %
Passenger traffic decreased	76 %

In Zambia: freight traffic increased by 30 % over budgeted

In Kenya: freight traffic increased by 48 % between 1997 and 2000  
Passenger traffic increased by 101 % during the same period

- b) Availability of locomotives should be at least 70% of projected total fleet. Number of breakdowns per 100,000km should be reduced by 50% and average run per day should be increased by 30%

In Malawi: Locomotive availability 92 %  
In Zambia: Locomotive availability 92 %  
In Sudan: Main line locomotive availability 30 % in 1999

- c) wagon and passenger car productivity should be increased by 30 %

In Malawi: Wagon availability 84 %  
Passenger coach availability 56 %  
In Zambia: wagon availability increased by 22 %  
In Tanzania: wagon productivity increased by 40 %  
In Sudan: freight wagon availability 55 %  
Passenger coach availability 30 %  
Tank wagon availability 90 %

- d) average cost per unit/km should be reduced by 30%

Information not available

- e) human resources productivity expressed in unit/km per staff should be raised by at least 40%

Information not available

- f) at least 25% of the existing track should be either partially or totally renovated

Information not available

- g) By the end of the Decade every railway corporation should seek to establish formal relationship with governments through contract plan.

Many railways have signed concession agreements with the private sector. Contract plan arrangement seems to be outdated at this stage except in North Africa.

- h) Training courses for railway managers should be established in the four African sub-regions

Only the Brazzaville school (ESAC-G) is functioning and giving courses for railway managers at this time.

- i) Greater attention should be given to the environment impact of railways

No information available

- j) Railway safety should be increased by at least 10%

In Zambia derailments decreased by 50%

- k) Development of African manufacturing capability should be accelerated

Not much has been done on this subject.

## **CHAPTER V**

### **IMPACT OF UNTACDA II IN THE DEVELOPMENT OF TRANSPORT**

#### **Awareness:**

The most important impact of the Decade programme is the awareness of African governments of the alarming situation of the railway enterprises and the heavy burden they exert on public finance, which led them to revise their policies and adjust their institutional and legal framework to the changed reality of the transport market following the spectacular development of other modes of transport.

#### **Transport services:**

The structural reforms, the introduction of new information systems, the participation of the private sector and the implementation of railway projects have resulted in the improvement of the performance of railway enterprises. Kenya Railways corporation, Tanzania Railways Corporation, Malawi Railways could be cited as examples among many others.

#### **Reforms:**

Many Sub-Saharan African governments have reformed their transport policies, by allowing their railway enterprises to operate as commercial enterprises managed along business principles and rules, in active competition with other transport modes. This enhanced the freedom of customers to freely choose among the different transport modes without any mandatory allocation of traffic. This in turn paves the way to the rationalization of traffic distribution and consequently the rational allocation of scarce economic resources.

#### **Rationalisation of staff:**

During the Decade programme some African railways have taken measures to reduce the strength of their manpower in order to adjust it to the volume of work, but much remains to be done.

#### **International co-operation:**

Sub-regional organisations are actively involved in the development of rational transport system within the sub-regions. They are adopting measures to eliminate the non-physical barriers that impede the free flow of international traffic between interconnected networks. (The SADC Protocol on Transport, Communications and Meteorology can be cited as an example)

Also sub-regional organisations are also actively involved in the interconnection process of their member countries by rail in order to facilitate intra-regional trade exchange and to open up land locked countries. The involvement of ECOWAS in the study and implementation of the master plan of interconnection of the countries of the region is a good example of this trend.

### **Private sector participation**

Following institutional and structural reforms making the railway enterprises function as commercial entities exercising their activities in a deregulated competitive transport market. Private sector is actively involved in the operation and investment in rail transport sub-sector. Many Sub Saharan African countries have entered into agreement with the private sector for at least one form of private participation. (For example Zambia, Malawi, Zimbabwe, Gabon, Cameroon, Burkina Faso, Ivory Coast, Ghana etc...)

The different forms of private sector involvement so far experienced are: management contract, leasing contract, concession contract, Build Operate Transfer (BOT),

From the above it could be concluded that on the whole the implementation of the Decade programme has laid the foundation to a rational development of rail transport sub-sector and its contribution to the over all economic development of Africa.

It should be noted that all this result is not attributable to the Decade programme only, but also to the structural adjustment programmes carried out at the same period in many African countries which has concurrently contributed to the implementation of the Decade programme.



## CHAPTER VI

### IMPLEMENTATION OF THE FRAMEWORK APPROVED BY CONFERENCE OF MINISTERS IN 1997

A framework for Accelerating the implementation of UNTACDA II regarding railway transport sub-sector was approved by the Conference of Ministers responsible for railways, in 1997.

Though no comprehensive report does exist, from information collected otherwise, we present here below implementation status on each action plan regarding the first phase 1998-2000 which is covered by the Decade programme.

#### **Phase I: 1998-2000**

- (a) *Retaining the performance indicators defined in paragraph 61 of the progress report*

Performance indicators have been retained for the rest of the Decade period.

- (b) *Supporting the UAR proposal to convene, for 1998, a meeting of railway experts to evaluate the performance goals achieved since 1991;*

Not implemented

- (c) *Follow-up and improvement of the railway administration and enterprise restructuring process (1997-1999)*

The process of restructuring of railways is being carried out in a satisfactory manner. So far Senegal, Mali, Burkina Faso, Cote d'Ivoire, Cameroon, Gabon, Malawi, Mozambique, Zambia, Zimbabwe, R.D.of Congo, Kenya, Tanzania, Sudan, Namibia, etc... have restructured their railway enterprises.

- (d) *Implementation of specific evaluative studies covering each sub-region, in co-ordination with the sub-regional groupings (1998-2000)*

Not implemented

- (e) *Highlighting and evaluating the different experiences with operations under concession (1998-2000)*

Not implemented

- (f) *Evaluating implementation of contractual /planning instruments and adherence by contracting parties to their obligations (1999);*

Not implemented

- (g) *Convening, for 1998, a conference of transport ministers responsible for railways, for a comprehensive evaluation of the sub-sector and issuance of guidelines to improve and sustain the restructuring process(1998)*

Not implemented

- (h) *Developing railway-equipment manufacturing industries (including joint manufacture of wagons by member States of regional groupings), creating sub-regional maintenance units, and establishing centres for co-ordinating, centralising and channelling the supply of equipment (1998-2000);*

An effort has been made by ECA along with UNIDO on this subject. Preliminary studies were made and some locations for the plant were identified but it did not materialise.

- (i) *Embarking on the actualisation of study projects relating to the implementation of the UAR master plan and sub-regional interconnection plans (1998-2000);*

The proposed master plan of interconnection based on existing sub-regional plans has been distributed to all delegates at the Cairo conference in 1997, for comments and proposals. But to date ECA has received no replies.

- (j) *Sustaining programmes focused on improved railway operations management through cost reduction and enhancement of staff productivity as well as equipment (1998-2000);*

As a result of the restructuring of railways measures to improve productivity like rationalisation of staff, introduction of management information systems, private sector involvement, rehabilitation of equipment and infrastructure, have been implemented.

- (k) *Streamlining flow of traffic, particularly international traffic (1998-2000);*

This applies to interconnected railway systems, particularly Eastern and Southern African railways. In this regard steps taken by the SADC member states is worth mentioning. They have signed the SADC Protocol on Transport, Communications, and Meteorology with stated objective that " Member States shall facilitate the provision of a seamless, efficient, predictable cost effective, safe and environmentally friendly railway service..."

- (l) *Improving maintenance techniques (1998-1999-2000);*

Some railways like Kenya have signed contracts with private firms for the maintenance of rolling stock in order to improve availability and reliability of equipment.

- (m) *Sustaining human resources development initiatives and those concerned with the co-ordination of training programmes in various institutions. Solving the problem of the WARDAN and KABWE centres (1998-2000);*

In addition to ESAC other national training facilities are ready to take staff from other railways for training. Egypt and Kenya could be mentioned as examples.

- (n) *Carrying out a study on the UAR databank and harmonising this with other ongoing projects, taking into account the progress so far achieved by organisations such as ECA and the World Bank.*

No implementation

The low level of implementation of the plan of action indicates the inadequacy of mechanisms of implementation and the defused nature of responsibility among the different institutions involved in the Decade programme.

## CHAPTER VII

### PROPOSALS FOR FUTURE ACTIONS

#### **A      At national level**

- a) Retain and implement the Global Objectives of the Decade programme
- b) Restructure railway enterprises
- c) Improve productivity of manpower, equipment and infrastructure;
- d) Sub-contract relevant activities and concentrate on core activities;
- e) Strengthen training facilities to permanently upgrade skill of staff;
- f) Introduce management information systems;
- g) Create conducive environment for private sector participation;
- h) Upgrade equipment, and infrastructure.

#### **B      At the sub-regional level**

- a) Establish sub-regional equipment manufacturing capabilities along with sub-regional specialisation, in order to benefit from the economy of scale,
- b) Create sub-regional purchasing units to ensure the availability of spare parts at reasonable
- c) prices,
- d) Establish sub-regional training centres
- e) Accelerate interconnection of member states by rail
- f) Facilitate international traffic within the sub-region
- g) Adopt common policy geared towards promoting the transport sector in such a way as to optimise its contributions to the harmonised and balanced economic and social development of the continent
- h) Establish sub-regional transport data banks
- i) Mobilise funds for projects that have sub-regional impact
- j) Proceed to the standardisation and harmonisation of the technical characteristics of equipment and infrastructure, operational methods, maintenance procedures, and safety standards.

## **CHAPTER VIII**

### **CONCLUSION AND RECOMMENDATION**

#### **CONCLUSIONS**

Despite the development of competing modes of transport, railways remain the most efficient mode for handling dense movements of people and freight and are critical for the industries and exports of many African countries. Rail transport of goods over long distances offers important advantages from the viewpoint of quality of service and environmental sustainability.

Current economic and technological developments, notably the increase in energy prices, are opening new opportunities for railway services and increasing the importance of improving railway performance and their response to evolving market conditions. Railways need to improve their service levels to those available in other transport modes in order to benefit from their comparative advantage.

Many African countries have carried out policy reforms, restructuring of railway organisations, and redefined the economic role of the railways in order to make them efficient and competitive with the other modes.

Though it is too early to evaluate the consequences of the recent reforms it could at least be said that the ground work, for a rational and liberalised transport market where customers could choose carriers based on quality of service and price, is laid. In principle a customer-oriented rail system offers shippers a competitive alternative in price, speed, and reliability.

The private sector is showing interest not only in the operation and upgrading of the infrastructure and rolling stock but also in the construction and operation of new railway lines. The interest manifested by the private sector is an indication of confidence that financiers have in railway transport, provided it is managed as an efficient customer driven business.

## **RECOMMENDATIONS**

### **1. Continuation of Decade programmes**

#### *Global Objectives*

The global objectives will remain valid for a long time to come. Every country should try to implement these objectives in their entirety whenever applicable.

The realization of these objectives by every country will ensure the physical integration of the continent and the free movement of goods and passengers throughout the continent and facilitate the economic integration of Africa.

#### *Reforms*

All countries should carry out reforms of their institutions to give full management autonomy to make railways commercially oriented, efficient competitive and financially viable.

#### *Private sector participation*

African railways are in need of capital and know how in order to survive and play their newly defined economic role within the transformed market situation.

Governments should create conducive environment for the participation of the private sector in rail transport.

In the long run operation of railway enterprises and the management of assets should be separated and operations management should be progressively transferred entirely to the private sector.

### **2. Role of sub-regional groupings**

Sub-regional organizations should take the responsibility for the development of the transport and communications sector and its contribution to the physical and economic integration of the African continent. As such they are responsible for the implementation of the UAR Master Plan of interconnection of Africa by rail, the expansion and modernization of equipment and infrastructure by mobilizing the necessary technological and financial resources

To summarize these institutions should be responsible for all aspects of the transport sector be it commercial, safety, operational and technical. Therefore they should take over the implementation of the objectives of the Decade programme because they fall under the mandate entrusted to them by their respective governments.

### **3. Cooperation**

ECA and UAR should work closely with the Sub-regional groupings to promote the development of the transport and communications sector in all its aspects.

Annex I	
TRACK LENGTH OF AFRICAN COUNTRIES	
COUNTRY	LENGTH
<b>NORTH AFRICA</b>	
Algeria	3945
Egypt	4750
Mauritanis	704
Moroco	1907
Sudan	6084
Tunisia	1941
S/TOTAL	19331
<b>CENTRAL AFRICA</b>	
Camerroon	1079
Congo (Rep)	798
Gabon	649
S/TOTAL	2526
<b>WEST AFRICA</b>	
Benin	458
Burkina Faso	622
Cote d'Ivoire	651
Ghana	953
Guinee	1045
Liberia	223
Mali	726
Nigeria	3557
Senegal	906
Sierra Leone	84
Togo	492
S/TOTAL	9717
<b>EAST &amp; SOUTHERN AFR.</b>	
Angola	2952
Botswana	971
Ethio/Djiboti	781
Kenya	2065
Lesoto	16
Madagascar	897
Malawi	815
Mozambique	3128
Namibia	2382
South Africa	22355
Swaziland	301
Tanzania	2600
TAZARA	1860
Uganda	1241
Zambia	1289
Zimbabwe	4304
Zaire(RDC)	9849
S/TOTAL	57806
<b>TOTAL GENERAL</b>	<b>89380</b>
Source: UAR Year Book, 1993	

				Annex II			
Total percentage of projects (36 RW projects)							
<b>RWT</b>							
Completed	36	46%		713.16	Total Fund	Funds Mobilized	Remarks
Partially Implemented	15	19%		981.14		1192.78	100
Not implemented	28	35%		857.94		707.1	63
Total	79	100%		2552.24		1899.88	51.02
Abandoned	7			249.00		247.41	
Total percentage of the Central African RW projects							
<b>CE</b>							
Completed	3	42%		22.33	Total Fund	Funds Mobilized	Remarks
Partially Implemented	2	29%		6.43		24.23	100%
Not implemented	2	29%		23.16		41.35	29%
Total	7	100%		51.92		12.00	
Abandoned	1			0.21		23.16	
Total percentage of the Eastern African RW projects							
<b>ES</b>							
Completed	23	51%		479.26	Total Fund	Funds Mobilized	Remarks
Partially Implemented	6	13%		459.80		636.67	100.00
Not implemented	16	36%		308.55		295.00	55.13
Total	45	100%		1247.61		931.67	60.34



Abandoned	3			15.60	17.20				
<b>NR</b>									
<b>Partial percentage of the Northern African RW projects</b>									
Completed	1	25%		75.00	284.00	2000	284.00	100.00	
Partially Implemented	1	25%		495.60	495.60		374.38		
Not implemented	2	50%		463.73	463.73				
<b>Total</b>	<b>4</b>	<b>100%</b>		<b>1712.33</b>	<b>1243.33</b>	<b>2000</b>	<b>658.38</b>	<b>52.05</b>	
Abandoned	1			230.00	230.00				
<b>WE</b>									
<b>Partial percentage of the Northern African RW projects</b>									
Completed	9	39%		158.08	247.80	2000	247.80	100.00	
Partially Implemented	6	26%		20.66	42.96		27.25	51.00	
Not implemented	8	35%		43.85	43.85				
<b>Total</b>	<b>23</b>	<b>100%</b>		<b>222.59</b>	<b>334.61</b>	<b>2000</b>	<b>275.05</b>	<b>82.20</b>	
Abandoned	2			3.19	4.80				

Total Percentage of Organizations Reported (2 RWT projects)						Annex III
<u>RWT</u>				External Fund	Total Fund	Funds Mobilized
Completed	1	50%			0.90	0.90
Partially Implemented						
Not implemented	1	50%		0.65	0.65	
<b>Abandoned</b>	<b>2</b>	<b>100%</b>		<b>0.65</b>	<b>1.55</b>	<b>0.90</b>
						<b>158106</b>
Total Percentage of Organizations not Reported (1 RWT project)						
<u>RWT</u>				External Fund	Total Fund	Funds Mobilized
Completed						
Partially Implemented						
Not implemented	1	100%		0.46	0.46	
<b>Abandoned</b>	<b>1</b>	<b>100%</b>		<b>0.46</b>	<b>0.46</b>	<b>0.46</b>