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# REVIEW OF THE IMPLEMENTATION STATUS OF THE TRANS AFRICAN HIGHWAYS AND THE MISSING LINKS

## VOLUME 3: THE WAY FORWARD

*Final Report*

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In Association With:  
**BNETD, Ivory Coast  
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## **REPORT LAYOUT**

The amount of information collected under this project is quite large. Major efforts have been made to concentrate the presentation in this Final Report to the most relevant aspects but the volume remains substantial. In order to make the material as accessible as possible we have opted to organize the presentation in four separate volumes as follows:

### **Volume 1, Main Report**

In this volume the major aspects of the TAH scheme are presented, divided into subject matters rather than geographic corridors (although corridor information in summary form is included in Volume 1).

### **Volume 2, Description of Corridors**

This volume contains the detailed description of the 9 TAH corridors, based on information collected at country, REC and regional levels.

### **Volume 3, Way Forward**

This volume contains the background and presentation of what needs to be done to the Trans African Highways and the conditions for the road traffic and transport using the network. It also formulates a vision for the future and suggests a Work Programme for the coming years.

### **Volume 4, Appendices**

In this volume background information, detail survey data, etc are presented.

It is only thanks to the kind co-operation and support from a great number of people in Ministries, Highway Administrations, RECs, ECA and last but not least the African Development Bank that it has been possible to produce this report within the short time-span available for the field work activities. For that the Team is most grateful.

The study has been carried out by an international group of consulting firms comprising SWECO and NCG of Sweden, Uniconsult of Kenya and BNETD of the Ivory Coast. The work was carried out by two teams. The members of the Anglophone team were Messrs Kisslig, Mbau, and Sedin. The francophone team comprised Messrs Biagone, Meyer, and Vasur. Mr Sedin has been the Team Leader.

## VOLUME 3 - TABLE OF CONTENT

<b>ACRONYMS .....</b>	<b>6</b>
<b>1 INTRODUCTION .....</b>	<b>7</b>
<b>2 TAH NETWORK.....</b>	<b>8</b>
2.1 Definition of the TAH network.....	8
2.2 Missing links .....	8
2.2.1 Definition of Missing Links .....	8
2.2.2 Funding Requirements .....	9
2.3 Alternative Alignments .....	9
2.4 Road Standards .....	9
2.4.1 Design Standard .....	10
2.4.2 Axle Load .....	10
2.5 Funding Issue.....	10
2.5.1 Internal Country Links .....	10
2.5.2 Linking Countries .....	10
2.6 Way Forward.....	11
<b>3 TRANSIT TRANSPORT FACILITATION .....</b>	<b>12</b>
3.1 Bilateral and Multilateral Agreements.....	12
3.1.1 Type and Scope of Agreements .....	12
3.1.2 New Approaches.....	12
3.2 Non-Physical barriers .....	13
3.2.1 Border Crossings.....	14
3.2.2 Road Blocks.....	14
3.2.3 Transport Facilitation Measures.....	14
3.3 Way Forward.....	15
<b>4 INSTITUTIONAL ISSUES .....</b>	<b>16</b>
4.1 Distribution of Responsibilities .....	16
4.1.1 Prerogative of the National State .....	17
4.1.2 Role of the Regional Economic Communities.....	17
4.1.3 Regional Level Activities.....	17
4.2 “TAH Bureau”.....	18
4.3 TAH Road Data Bank.....	18
4.4 Way Forward.....	19
<b>5 THE TAH VISION .....</b>	<b>20</b>

**Volume 3 – The Way Forward**

<b>6</b>	<b>ACTION PLANS</b> .....	<b>21</b>
<b>6.1</b>	<b>Overall Plan</b> .....	<b>21</b>
6.1.1	TAH Network .....	22
6.1.2	Transit and Transport Facilitation.....	23
6.1.3	Institutional Issues .....	24
<b>6.2</b>	<b>Corridor Plans</b> .....	<b>25</b>
6.2.1	TAH 1: Cairo – Dakar Corridor.....	25
6.2.2	TAH 2: Algiers – Lagos Corridor .....	25
6.2.3	TAH 3: Tripoli-Windhoek .....	26
6.2.4	TAH 4: Cairo-Gaborone .....	27
6.2.5	TAH 5: Dakar – N’djamena.....	28
6.2.6	TAH 6: N’djamena –Djibouti .....	29
6.2.7	TAH 7: Dakar – Lagos.....	31
6.2.8	TAH 8: Lagos-Mombasa .....	32
6.2.9	TAH 9: Beira-Lobito.....	34

**ACRONYMS**

ADB	African Development Bank
CEMAC	Communauté Economique et Monétaire d'Afrique Centrale
CEN-SAD	Community of Sahel and Saharan States
CLRT	Comité de Liaison de la Route Transsaharienne
COMESA	Common Market for Eastern and Southern Africa
EAC	East African Cooperation
ECA	Economic Commission for Africa
CEEAC / ECCAS	Communauté Économique des États de l'Afrique Centrale / Economic Community of Central African States
ECOWAS	Economic Community of West African States
GIS	Geographic Information System
NEPAD	New Partnership for Africa's Development
OAU	Organization of African Unity
REC	Regional Economic Community
SADC	Southern Africa Development Committee
SATCC	Southern Africa Transport and Communications Commission
Sida	Swedish International Development Agency
TAH	Trans African Highways
TRLC	Trans Saharan Road Liaison Committee
UEMOA	Union Economique et Monetaire Ouest-Africaine
UMA	Union du Maghreb Arabe
UNTACDA	United Nations Transport and Communications Decade

## 1 INTRODUCTION

Volume 1 and Volume 2 provide a fairly detailed description of the existing physical condition of the TAH network, problems and prospects in the field of non-physical barriers to road transport operations as well as the institutional framework for the development and harmonization of the network.

Major problems and shortcomings have been identified and discussed both in this report as well as during the workshop in Addis-Abeba in early 2003 together with possible remedies and alternative solutions to these problems.

The identification and discussion of problems as well as the search for remedies are discussed in various sections of the two main parts of the report (this in order to present them in their proper context). This mode of presentation facilitates the understanding of the individual problems and shortcomings but makes it difficult to get a clear overview of all the problems and their interconnection. Similarly, the different actions needed to resolve the problems tend to be seen in isolation.

In order to provide a better overview of the situation and what needs to be done in the future an attempt has been done in this Volume 3 to summarize the situation in the fields that need action together with a presentation of the proposed measures that constitute a possible way forward.

Furthermore, the different activities forming part of the way forward proposals have been arranged in coherent action plans which do not only identify what needs to be done, but also at when at what level and by which organization. Action Plans have been prepared

- a) On a more general level basically dealing with actions to be taken at regional and sub-regional level.
- b) For each of the TAH corridors that covers country level actions (both by individual countries and bilaterally) independently or in co-operation with the respective RECs.

## **2 TAH NETWORK**

The Trans African Highway concept as originally formulated in the early 1970s, aim at the establishment of a network of all weather roads of good quality, which would a) provide as direct routes as possible between the capitals of the continent, b) contribute to the political, economic and social integration and cohesion of Africa and c) ensure road transport facilities between important areas of production and consumption.

The physical lay out of the TAH network has turned out to be a compromise between these objectives. The financial resources made available to the road sector have over the years basically been used to improve the roads serving important population and production centres at national and sub-regional levels, while roads providing the most direct route between capitals have in a number of case been neglected.

### **2.1 DEFINITION OF THE TAH NETWORK**

During the course of the study it has not been possible to locate an official or commonly accepted document defining the TAH network as well as what body or decision designates a road section as being part of a TAH and what it actually means. As the study has identified a possible need for adjustments in the alignment and extensions of the network clarity must be established as to what agreements and provisions shall govern such changes in the network.

### **2.2 MISSING LINKS**

As mentioned above a quarter of the foreseen TAH network is not yet in place.

#### **2.2.1 Definition of Missing Links**

In the context of this study the following definitions have been used in effort to find a practical way of identifying missing links.

- A section for which a contract has been signed to be paved is not considered as missing, and the expected completion year is indicated.
- A section for which financing has been secured but no contract signed, is considered as missing with indication of the existing nature and amount of financing and the expected year of completion.
- All other sections that are not paved all weather roads are considered as missing.

### **2.2.2 Funding Requirements**

Using the above definition of the missing links the costs of completing the Trans African Highways are estimated at about 4.3 billion USD. What is needed in a next step are financial and technical feasibility studies of the sections which are deemed to be in need of improvement. It is only in such a way that a program and cost estimates of the improvement of the TAH network could be established.

## **2.3 ALTERNATIVE ALIGNMENTS**

The RECs have over the years worked on identifying sub-regional road networks that are of importance for the economic and social development and the political integration of the sub-region. These sub-regional networks together with developments initiated at national level coincide, support and supplement quite well the TAH network. However, as a result of these developments there are sections of the TAH network, which do not coincide with the sub-regional priorities and where therefore the existing alignment is being contested and alternative alignments promoted<sup>1</sup>.

Furthermore, the TAH concept was developed during the apartheid period of the Republic of South Africa and the country was therefor not included in the scheme. With majority rule in South Africa it could be argued that the Cairo-Gaborone TAH should be extended to Pretoria and the Tripoli-Windhoek TAH to Cape Town.

## **2.4 ROAD STANDARDS**

The present situation in Africa shows a variation in both the width of the carriageway and the width and type of the shoulders. However, for main international roads, uniformity of cross-sections should be aimed at. The minimum standards should be decided taking into account various parameters, e.g. a) the composition and volume of traffic, especially the amount of heavy vehicles and the occurrence and amount of pedestrians and cyclists, b) the speed limit and the type of terrain;

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<sup>1</sup> Such possible realignments are found along the following TAH: a) Lagos- Mombasa (Cameroon, Central African Republic) and; b) Tripoli-Windhoek (in Chad, Central African Republic and Congo)

### **2.4.1 Design Standard**

As international road links normally support high-speed traffic and are used by many heavy vehicles, a certain minimum standard for carriageway widths should be considered, and reference is made to the SATCC-standard for southern Africa, which corresponds quite well to international practices.

### **2.4.2 Axle Load**

The most important parameter for the life expectancy of a road is the axle load allowed. Each road structure is designed for a maximum number of axle passages. If the real axle load is higher than foreseen, the damage factor increases exponentially and the life expectancy of the road decreases. If different countries allow different axle loads, this will lead to complications at border crossings. Early steps to harmonisation in this area, starting within the RECs, are strongly recommended.

## **2.5 FUNDING ISSUE**

In principle there are two types of missing links from a funding point of view.

### **2.5.1 Internal Country Links**

There are a number of missing links, located inside a country and not extending to a border. In such a situation the priorities of the government must prevail. What the RECs can do is basically to keep the issue alive and actively review the possible funding options available to the national government.

### **2.5.2 Linking Countries**

The situation is a bit different when it comes to missing links that directly hinder regional development by making traffic between two countries difficult or impossible. Provided the up-grading of such a link could offer reasonable economic returns, there are external assistance organizations, like EU and the African Development Bank, that pay special attention to projects with specific regional development profiles. Projects of this type are normally strongly supported by the respective REC(s) and in such cases the REC(s) could play an important role in assisting the concerned country(s) with the application for funding, agreement on common standards, procurement of design, construction and supervisory services, etc. This being said, it should still be remembered that the “ownership” of this type of project remains firmly with the individual country(s).

As a general rule the RECs are acutely aware of both these types of missing links and also working hard to convince the individual countries to do something about the problem. However, their possibilities to influence developments differ between different types of missing links as further discussed below. Alternative type of funding e.g. private sector capital would not be available for this type of project for a foreseeable future.

## **2.6 WAY FORWARD**

- ECA in co-operation with the countries concerned should work out a document defining the TAH network including authority and procedures for its modification. This would provide suitable forum and procedures for the handling of alternative alignments (within a general policy of limiting adjustment of existing links) and a possible/desirable extension of the TAH concept into South Africa.
- Although the standard of the different sections of the TAH network must be adopted to the actual road traffic load and financial possibilities it could be useful to initiate a discussion at RECs level of a minimum standard for TAH. The outcome of such discussions at sub-regional level could be followed by deliberations at regional level. A similar process of gradually harmonizing the axle load and total weight regulations between the RECs should be initiated
- The very large amounts of money needed to complete the TAH and the relative lack of investment funds for major infrastructure investment, makes many of the missing links impossible to fund in the short and medium term (irrespective of the potential source of funding). This combination of limited resources and large requirements clearly indicates that priority must be given to least cost solutions and projects with a limited total cost. Therefore it is necessary to carry out feasibility studies of possible improvements before any serious discussions on priorities could take place.
- The role of the private sector in the funding of the TAH network needs to be given more attention. Such private sector involvement could also include concessions in the maintenance field. A first step in this direction would be to organize workshops/seminar at sub-regional and regional levels to create awareness of how best to encourage private initiatives in the road sector

### **3 TRANSIT TRANSPORT FACILITATION**

#### **3.1 BILATERAL AND MULTILATERAL AGREEMENTS**

##### **3.1.1 Type and Scope of Agreements**

There are numerous sub regional agreements in a number of areas related to the TAH network and its functioning. These agreements are generally considered as quite reasonable but their application varies considerably from area to area. While more technical issues related to e.g. design and construction standards of roads have been both accepted and introduced in many sub-regions, other agreements like axle load control, transit charges etc may have been accepted but less commonly introduced.

The lowest level of implementation of sub-regional and regional agreements is found in the trade facilitation area. Instead of functioning multilateral agreement, this area has seen the development of a number of bilateral and national rules, which in reality govern e.g. the activities in the road transport sector. Their numbers have grown over the years so much that it has become uncertain which agreements really are applied. Such a situation obviously does not lead to unified and coordinated activities but rather contributes to confusion with many rules covering the same areas with ensuing uncertainty and a multiplication of forms and procedures.

The fact that there are problems with the implementation of the different regional and sub-regional agreements does not mean that nothing is done in this area. Efforts have been made to resolve the problems with poor application and a number of concrete measures have been tried. They range from additional studies to tackle specific problem areas (reduction of controls) or to up-date old studies (unified transit charges) to the introduction of concrete measures on a pilot basis (construction unified border control facilities).

##### **3.1.2 New Approaches**

A major factor explaining the shortcomings outlined above is the fact that the problems to be resolved and their solutions have relatively little to do with technical and legislative improvements. Rather it appears that improvements have to be based on a strong and concerted political will expressed through political agreements and interventions from the highest government levels. Furthermore, the fact that all countries are members of two or more RECs requires a high level

of agreement and co-operation between these Communities to ensure that all actors pull in the same direction.

#### *Competition among the Transit Corridors*

One of the more effective means for broad-based improvements in the field of adherents to regional and sub-regional agreement would be to foster competition among the different corridors connecting the land-locked areas of the continent to the sea.

#### *Lending Conditionalities*

One proposal for how to mobilize political interest and intervention is for the financing institutions to extend existing conditionalities<sup>2</sup> also to include commitments for the reduction of the non-physical barriers. As most of the countries finance all the rehabilitation activities and new construction from loans and grants from international lending institutions this could be an efficient method. The issue of non physical barriers is of such importance to the functioning of not only the Trans African Highways but of the whole transport system that it seems to be fully justified for the financing institutions to introduce such a conditionality for all operations in the road sector.

#### *“Bottom –Up” Approach and Private Sector Involvement*

The difficulties experienced in translating protocols and decisions into consistent laws, regulation and procedures at country level has made SADC try to approach the problems in the trade and transport facilitation field in a “bottom-up” fashion. Instead of starting with a decision at a ministerial meeting the approach has been to start at the working levels with an identification and analysis of the problems encountered. Only when agreements of a concrete nature have been arrived at working level would the proposals be codified at ministerial level.

### **3.2 NON-PHYSICAL BARRIERS**

The situation with respect to trade and transport facilitation constitutes a major problem in the whole of Africa. The problems are not uniform across the sub regions with West and Central Africa having the most pronounced difficulties, but in one form or another all the African countries are affected.

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<sup>2</sup> Such as environmental protection measures, AIDS prevention, adequate routine maintenance funding, and others.

### **3.2.1 Border Crossings**

Border crossings are another time consuming difficulty. That it takes more than 24 hours to pass a boarder appears to be the norm rather than the exception. An even more severe problem than the long delays when crossing a border is the situation when the border or an area is closed to traffic.

Another contributing factor is the variety of regulations and forms that each country applies and which is often not coordinated with those in effect in the neighboring states. This leads to long waiting times at the borders, with the border posts and customs offices being physically separated and in effect meaning two complete sets of controls for each border, a multitude of forms and documents to be filled and checked, and additional costs for required escorts and convoys.

### **3.2.2 Road Blocks**

The frequent roadblocks, some of which are formally and legally established, while others, the majority, are not amount to a major non-physical barrier. Police, customs officers, gendarmes and other officials are all involved.

The checks are numerous, for example between Abidjan and Ouagadougou, a distance of about 1 000 km, a recent count found some 65 such controls. The required payments vary with the type of vehicle, type of goods transported, nationality of the transporter etc. These payments cover the whole spectrum from legal to illegal, without a clear demarcation but rather a continuum and thus a most serious aspect is that it involves corruption and is therefore difficult to come to grips with. Not only are these payments heavy for each trip, but their overall effect is even more important. Assuming 100 trucks/day on 7 major West African roads on the average, the total annual cost on these roads from the various roadblocks amounts to about 80 MUS\$.

### **3.2.3 Transport Facilitation Measures**

The problems of the non-physical barriers are thus extensive, deep-rooted and inherently difficult to come to grips with. They have been observed since a long time and new approaches are clearly required.

The TAH (individually or as a network) could be used as focal point for the fight against the non-physical barriers. By concentrating the efforts to the TAH and supported by the financing institutions requiring the elimination of the non physical barriers a fresh start could be made in this long and arduous process. If this were to be achieved, an added benefit would be that the Trans African Highway concept would gain relevance.

### **3.3 WAY FORWARD**

New approaches are required in order to ensure that discussions taken at regional and sub-regional are translated into effective action in member countries.

- Competition among the transit corridors should be encouraged through the improvement of existing roads, the construction of alternative routes, improvement in the number and quality of border harbour facilities, specific action programmes against non-physical barriers, etc. This work has already been initiated by the RECs and they should continue to shoulder the main responsibility for moving this process forward.
- The inclusion of commitments for the reduction of the non-physical barriers among the loan conditions to be met for new loans and grants from international lending institutions and aid organizations. For this to be possible it is important that at least the most important lending institutions and donors agree on how to design and implement such a scheme. The African Development Bank should take a leading role in this work.
- An increased use of the “bottom–up approach” in translating protocols and decisions into consistent laws, regulation and procedures at country level. Each of the RECs in a dialogue with their member countries should determine the usefulness and applicability of this approach in their respective sub-region, drawing fully upon the experience of SADC.
- Use of the TAH (individually or as a network) as focal points for the fight against the non-physical barriers. These activities could at least initially be organised as pilot activities within one or more countries.
- There is a need to establish a basic policy guiding the harmonisation work in the trade and transport facilitation field. Such a policy should in principle be based on a suitable UN resolution or similar international agreements.

## **4 INSTITUTIONAL ISSUES**

As a part of the efforts in the early 1990s to re-establish the Trans-African Highway Bureau ECA proposed in 1993 statutes for a new Bureau. These statutes covered basically organizational and administrative provisions but contained also a description of the aims and objectives of the Bureau.

In determining the need for such a Bureau it is important to determine what tasks and responsibilities could and should be handled at the country, sub-regional and regional levels. Over the years (and in the absence of a TAH Bureau) a number of the co-ordinating, harmonisation and funding issues have been taken over by the countries themselves and the RECs. A fairly natural division of work and responsibilities has been developed between these two groups of actors leaving relatively few unresolved issues to the regional level.

Against this background it seems impractical to centralise the co-ordination and management, whatever the meaning and content of it, to one bureau. As to standards, most of the work should be done on a sub regional basis. The existing Transport Departments of the RECs are in contact with the countries and know the situation. There are thus considerable economies and a better contact with the realities on the ground in continuing these arrangements.

In other words, many of the tasks originally included among the aims and objectives of the proposed re-established Bureau are to day adequately handled by the individual countries and the RECs. There are, however, certain functions that are best handled at regional level, which are further discussed below.

### **4.1 DISTRIBUTION OF RESPONSIBILITIES**

The ambitious institutional structures established at regional and corridor levels in the 1970s and 1980s for the management and administration of the Trans-African Highways ceased to exist, except for the Trans Sahara Highway, for all intents and purposes in the late 1980s. Major efforts were made in the early 1990s to re-establish the Trans-African Highway Bureau but without success. The main reason for this failure has been the lack of support among member states for such a re-establishment of the Bureau.

The cost involved in setting up and running a TAH Bureau has certainly been a factor in the rejection of the concept, but also other factors that have played a role in this case. Prominent among these was that it was considered that the tasks were not closely defined and that much of the co-ordination and planning needs which were advanced could be better handled on a sub regional level. This could be

done in together with some body on the sub regional level, e.g. the transport division of the relevant REC.

#### **4.1.1 Prerogative of the National State**

The Governments of Africa, through their relevant ministries and responsible road authorities consider decisions regarding what road to build, rehabilitate and maintain and at what time a purely national issue. These prerogatives extend to the part of the TAH that falls within the borders of the individual country.

This does not imply isolation from the ideas and views of neighbouring states and regional and sub-regional bodies. On the contrary, the road authorities in the individual countries tend to be open to ideas brought forward by e.g. the RECs about design standards, maximum vehicle, weights, axle loads, etc. even though they tend to reserve the right to take unilateral decision in these areas.

#### **4.1.2 Role of the Regional Economic Communities**

The RECs play an important role in the sub-regional road sector. Their close contacts with the individual countries, interest and competence in technical matters in the road infrastructure and the road transport fields are generally appreciated by the member Governments. The fact that the RECs also provide a natural basis for discussions on common sub-regional issues adds to their usefulness. The practical outcome is e.g. the designation of sub-regional networks of high priority roads knitting together the countries of the sub-region. However, there are also natural areas of disagreement. A case in point are cases where the sub-regional body promotes the improvement of a road, with a long term regional development potential but which is of limited, immediate national interest to the concerned government(s).

The RECs do not only work closely with their member governments. They also try to keep each other informed, organize joint working group, borrow worthwhile ideas and concept from each other. This means that they also ensure a certain degree of co-operation and harmonization across sub-regional borders.

#### **4.1.3 Regional Level Activities**

The analysis above indicate a few areas where it would be useful with some kind of a regional capacity to monitor the activities of the RECs and promote measures of harmonization and integration between the different organizations operating on a sub-regional basis. The functions would also include activities like the promotion of Africa wide exchange of experience and contacts in the road sector. Such activities could be arranged through gatherings such as the African

Highway Congresses. There is also a need to determine procedures for how to change the alignment of sections of the TAH and/or expand the network. This would include decisions on who does officially designate a road as being part of an TAH and what it actually means.

#### **4.2 “TAH BUREAU”**

The above outlined, fairly modest set of activities would not require an elaborate institutional structure as a Trans-African Highway Bureau, but could most likely be part of shared responsibilities involving only a few people, with other tasks as their main responsibilities.

#### **4.3 TAH ROAD DATA BANK**

The traditional way of presenting information about the physical condition of a road network and its traffic is to produce tables containing figures from inventories, condition surveys, traffic counts etc. supplemented with maps illustrating the geographic conditions along the roads. With access to modern software a more sophisticated co-ordination between the information and its presentation could be achieved. The advantage of such a modern system, once established, is an automatic updating of the whole presentation when recorded figures are revised.

It is possible to use information generated by the TAH study to establish such a modern, GIS map presentation system for the Trans African Highway network. A relatively simple GIS map presentation system for the TAH network only could be a most useful monitoring tool for the institution and staff responsible for the regional functions. The cost of setting up and operating this system once established would not be very demanding, with the exception of the data collection needed for up-dating.

The establishment of a GIS based data bank for the TAH network is a relatively straightforward task. The problem is basically to keep such a system up dated once established. Before a decision is taken to go ahead (or not) with such a system the whole issue of up dating the data base must be carefully considered (what information would be needed, how often to report, how to finance the up-dating work, etc).

#### **4.4 WAY FORWARD**

In the institutional field and regarding the management of the TAH the experience of the last few decades should be fully taken into account.

- The Governments of Africa, through their relevant ministries and responsible road authorities consider decisions regarding what road to build, rehabilitate and maintain and at what time a purely national issue. These prerogatives extend to the part of the TAH that falls within the borders of the individual country.
- The RECs play an important role in the sub-regional road sector. Their close contacts with the individual countries, interest and competence in technical matters make the RECs a natural focal point for discussions on common sub-regional issues and agreements.
- The RECs are also proving a certain degree of co-ordination between the different sub-regions. These activities are handled in a more informal manner. The activities in this field are organized to disseminate information about developments of common interest, organization of joint working groups, borrowing of worthwhile ideas and concept from each other, etc. These activities do not, however, amount to a system of fully fledged regional co-operation. Consistent and effective regional co-ordination would require a capacity at regional level to monitor the activities of the RECs and promote measures of harmonization and integration between the different organizations operating on a sub-regional basis. There is furthermore the function to officially designate alternative alignments and/or extensions of the TAH network. ECA is well placed to fill such a role.
- There is a need to establish a simple institutional structure to handle the fairly modest set of activities at regional level. ECA and ADB should determine the best institutional format for such activities, which could most likely be part of shared responsibilities involving only a few people, with other tasks as their main responsibilities.
- The need for and organization of a GIS based data base road data bank should be determined by the ADB (in view of its new role under NEPAD). These tasks must include a careful assessment of the costs and possibilities of building a dependable future system for up-dating of road and road traffic data.

## **5 THE TAH VISION**

The Trans African Highway concept goes back a number of decades and could be seen as a physical representation of a strongly felt African vision of a dynamic continent striving to focus and direct its natural and human resources into a process of sustained growth, development and regional co-operation.

The creation of NEPAD and AU has rekindled these African ambitions and provide the basis upon which the old vision could be realized. This being said it must also be realized that a revitalization of the TAH concept must take into account developments and experiences gained over the decades since the creation of the TAH concept.

- The sovereignty of the African countries and their growing competence and capacity to handle their national road networks means that the ownership and management of the national road networks, including TAH links, are functions best handled at national level.
- The RECs have proven capable to handle sub-regional issues dealing with technical standards, transport requirements, etc.
- The replacement of the apartheid regime with one based on majority rule has made South Africa an integral part of modern Africa.

The TAH concept must be a dynamic one, capable to adjust to social, economic and political development of the continent but without losing the vision upon which the concept is based.

For the future this will require a constructive dialogue between the Region, the RECs and the individual countries where local and national interests are balanced against the interests of integration and co-operation at sub-regional and regional levels. The extent and alignment of the TAH network must be reviewed and changes introduced to the network if required. This is of particular importance in the southernmost part of the network where the network must be extended into South Africa.

Last but not least urgent and efficient measures are needed to facilitate the trade and transport moving along the TAH network (as well as along other international, national, provincial and local roads). Without substantial improvements in the conditions for trade and transport it may be difficult to secure the funds needed to improve and complete the TAH network.

## **6 ACTION PLANS**

The different activities for future implementation identified above need to be arranged in a coherent action plan which does not only identifies what needs to be done, but also at what level and by which organization. Two types of action plans have been prepared: a) one dealing with the overall questions to be handled at regional and sub-regional basis, and; b) corridor specific plans

### **6.1 OVERALL PLAN**

This plan provides a basic description of the required activities divided into three main groups of activities:

1. Activities aimed at defining the TAH Network, procedures for adjustments and extension to the network as well as questions of minimum standards.
2. Ways and means to promote trade and transport facilitation.
3. Institutional measures

This Action Plan identifies the main areas of activities needed to consolidate and develop the Trans African Highway network. For each of the identified activities preparatory and planning work will be required. This work will be the responsibility of the organization identified below. It will only be possible to determine the more exact timing of the actual implementation activities during the preparatory work. The timing specified in the Action Plan is only a rough estimate.

The Action Plans are shown on the pages below.

**6.1.1 TAH Network**

<b>Activity</b>	<b>Responsible Organization</b>	<b>Time</b>
1. Preparation document defining the TAH network including authority and procedures for its modification.	ECA in co-operation with AU and ADB.	2004
2. Discussion and determination of a suitable level of a minimum standard for TAH. The work to start at sub-regional level.	RECs	2004-2005
3. Based on the outcome of the activities outlined under point 3 above a minimum standard shall be developed for adoption at regional level.	ECA in co-operation with ADB and the RECs	2004-2005
4. The harmonizing the axle load and total weight regulations between the RECs should be initiated.	ECA	2004
5. The role of the private sector in the funding of the TAH network needs to be given more attention. To that end workshops/seminar should be organised at sub-regional and regional levels to create awareness of how best to encourage private initiatives in the road sector	ECA and the RECs	2004-2005

**6.1.2 Transit and Transport Facilitation**

<b>Activity</b>	<b>Responsible Organization</b>	<b>Time</b>
6. The ongoing work to establish a basic policy guiding the harmonisation work in the trade and transport facilitation field shall be speeded up. To the extent possible such policies shall in principle be based on relevant UN resolution or similar international agreements.	ECA and the RECs	2004
7. Individual RECs may have limited capacity to handle the added responsibilities outlined under 7 above (as well as an anticipated need to prepare regional TAH projects) and would therefore require additional resources. It is expected that such additional resources could be provided under NEPAD.	Concerned RECs to prepare request for additional funding to be considered by NEPAD	2004-2005
8. Concrete measures to increase the competition among the transit corridors to be encouraged. The required actions programmes to be developed on sub-regional level.	RECs	First Half of 2004
9. The inclusion of reduction of the non-physical barriers among the loan conditions international lending institutions and aid organizations to be reviewed.	ADB.	2004
10. Measures to increase the use of the “bottom-up approach” in translating regional and sub-regional protocols and decisions into consistent laws, regulation and procedures at country level.	RECs in close co-operation with member countries drawing fully upon the experience of SADC.	First Half of 2004
11. Use of the TAH (individually or as a network) as focal points for the fight against the non-physical barriers. These activities could at least initially be organised as pilot activities within one or more countries.	RECs	Second Half of 2004

**6.1.3 Institutional Issues**

<b>Activity</b>	<b>Responsible Organization</b>	<b>Time</b>
12. The basic division of roles and responsibilities for the TAH network between the individual countries, the RECs and the regional levels to be reviewed and codified.	ECA and the RECs	2004
13. Capacity needs to be established at regional level to monitor the activities of the RECs and promote measures of harmonization and integration.	ECA	2004
14. The function to officially designate alternative alignments and/or extensions of the TAH network shall be established.		2004
15. A simple institutional structure shall be established at regional level to administrate the task mentioned under points 13 and 14 above.	ECA	2004
16. The need for and organization of a GIS based data base road data bank to be determined, include a careful assessment of the costs and possibilities of building a dependable future system for up dating of road and road traffic data.	ADB (in view of its new role under NEPAD).	2004

**6.2 CORRIDOR PLANS**

The Corridor Plans are basically concerned with possible changes/extensions of the existing alignment as well as the concrete measure needed to gradually improve missing links and improve road the conditions for road transporters through the reduction/removal of non-physical barriers.

**6.2.1 TAH 1: Cairo – Dakar Corridor**

With the remaining missing links currently being constructed, no specific activities need to be initiated on this corridor.

**6.2.2 TAH 2: Algiers – Lagos Corridor**

The main activities required along the Algiers - Lagos Corridor are located in Algeria and Niger and could be summarized as follows. Details about the individual missing links are available in Volume 2.

Activity	Responsible Organisation	Time
<b>Missing Links</b>		
<p>The terrain and traffic conditions are such that a gradual improvement appears preferable. The alignments go through desert terrain, which is partly flat and hard, providing excellent driving conditions, and thus investments would not be needed along the whole alignment but be limited to certain difficult sections. Such an option is considered fully feasible but has to be made subject to feasibility studies</p> <ul style="list-style-type: none"> <li>• Tamanrasset-In Guezzam</li> <li>• In Guezzam-Assamaka</li> <li>• Assamaka – Arlit (200 km)</li> <li>• Agadez – Zinder (130 km)</li> </ul>	<p>Government of Algeria, supported by CLRT. -"</p> <p>Government of Niger, supported by CLRT -"</p>	2004 – 2006

**Volume 3 – The Way Forward****6.2.3 TAH 3: Tripoli-Windhoek**

There are considerable sections of this corridor both in the Sahara desert as well as in Central Africa that are either entirely missing or in need of major improvements. There is also a question of shifting the alignment of the corridor in a number of countries and as well as extending this corridor into South Africa. Details about the individual missing links and the concrete proposals for changes in the alignment both within and between countries are available in Volume 2.

<b>Activity</b>	<b>Responsible Organization</b>	<b>Time</b>
<b>I Missing Links (within and between countries)</b>		
<p>The major efforts required to up-grade existing roads or build new ones in order to remove existing missing links needs to be approached in a long-term and phased manner. Each country must determine the priority of the different links and plans be prepared for how and when to prepare the required feasibility studies. Such plans should take into account the results of the discussions and negotiations mentioned under II below.</p> <ul style="list-style-type: none"> <li>• Libya (180 km)</li> <li>• Chad (1842 km)</li> <li>• Cameroon (212 km)</li> <li>• Central African Republic (447 km)</li> <li>• Congo (557 km)</li> <li>• Angola (433 km)</li> </ul>	<p>Government of Lybia Government of Chad Government of Cameroon Government of CAR Government of Congo Government of Angola</p>	2004-2005
<b>II. Changes/Extension of Alignment</b>		
<ul style="list-style-type: none"> <li>• Alternative alignments are being discussed, influencing the location of the corridor in Niger, Chad, Cameroon, CAR, Gabon and Congo. The questions about how to handle these alternatives alignments should be initiated at Regional and Sub-Regional levels.</li> <li>• The Corridor to be extended from Windhoek to Cape Town</li> </ul>	<p>ECA together with concerned RECs and Governments.</p> <p style="text-align: center;">-"</p>	2004-2005

**Volume 3 – The Way Forward****6.2.4 TAH 4: Cairo-Gaborone**

The main activities required along the Cairo-Gaborone Corridor could be summarized as follows. Details about the individual missing links are available in Volume 2.

<b>Activity</b>	<b>Responsible Organization</b>	<b>Time</b>
<b>I Missing Links (within country)</b>		
New or up-dating of feasibility studies for the following link:  Minjingu-Iringa (535 km)	Government of Tanzania	2004
<b>II Missing Links (border connection)</b>		
Priority setting and possible inclusion (confirmation) of the following missing links in investment plans, which may require supplementary or new feasibility studies. <ul style="list-style-type: none"> <li>• Arkeen-Wadi Halfa (5 km)</li> <li>• Wadi Halfa-Ghaba, (433 km)</li> <li>• Sudan frontier-Azèzo (185)</li> <li>• Moyale – Isiolo (519 km)</li> </ul>	Government of Egypt Government of Sudan Government of Ethiopia Government of Kenya	2004
<b>III. Changes/Extension of Alignment</b>		
Extension of the Corridor into South Africa through the addition of a Gaborone-Pretoria link	ECA in cooperation with SATCC and the Government of South Africa	First half of 2004

**6.2.5 TAH 5: Dakar – N’djamena**

As the missing link between Saraya in Senegal and Kita in Mali can soon be bypassed on the north via Kidira – Kayes – Didjeni, the only remaining missing link is a small section in Cameroon, Fotokol – Maltam. This section links Nigeria to Chad. As Cameroon attributes a low interest for rehabilitation of this section, a joint effort between Cameroon, Nigeria and Chad may be necessary. For further details, see Volume 2.

Activity	Responsible Organization	Time
<b>Missing Link</b>		
Initiation of discussion between the governments of Cameroon, Nigeria and Chad concerning a feasibility study of possible improvements of the missing link: <ul style="list-style-type: none"> <li>• Fotokol - Maltam (85 km)</li> </ul>	Government of Cameroon, together with governments in Nigeria and Chad.	2004

**Volume 3 – The Way Forward****6.2.6 TAH 6: N’djamena –Djibouti**

The main activities required along the N’djamena –Djibouti Corridor could be summarized as follows. Details about the individual missing links are available in Volume 2.

<b>Activity</b>	<b>Responsible Organization</b>	<b>Time</b>
<p><b>I Missing Links (within country)</b></p> <p>There are rather extensive road rehabilitation and improvement programmes ongoing in the countries concerned. This means a certain capacity to include the missing links in future road improvement efforts, which would require the establishment of priorities for these links and a programme of feasibility studies for the links with the highest priority.</p>		2004-2005
<ul style="list-style-type: none"> <li>• Massaguet-Ngoura (125 km)</li> <li>• Ngoura-Bokoro (166 km)</li> <li>• Bokoro-Oum Hadjer (441 km)</li> <li>• Oum Hadjer-Abéché (145 km)</li> </ul>	Government of Chad	
<ul style="list-style-type: none"> <li>• El Geneina-Zalingei (150 km)</li> <li>• Nyala-En Nouhud (436 km)</li> </ul>	Government of Sudan	
<ul style="list-style-type: none"> <li>• Werota-Weldiya (300 km)</li> <li>• Weldiya-Dese (120 km)</li> <li>• Dese-Kembolcha (25 km)</li> <li>• Kembolcha-Bati (42 km)</li> <li>• Bati-Mille (78 km)</li> </ul>	Government of Ethiopia	

**Volume 3 – The Way Forward**

Activity	Responsible Organization	Time
<b>II Missing Links (border connection)</b>		
<p>The two missing links mentioned below are located on either side of the border and their improvement should preferably be handled jointly by the two governments.</p> <ul style="list-style-type: none"> <li>• Abéché-Adre (166 km)</li> <li>• Adre-El Geneina (25 km)</li> </ul>	Government of Chad and the Government of Sudan	2004-2005
<p>Plans for the improvement of this link (including feasibility work) to be initiated as soon as possible. Galafi-Dikhil</p>	Government of Djibouti	2004

**Volume 3 – The Way Forward****6.2.7 TAH 7: Dakar – Lagos**

The missing links along the Dakar-Lagos corridor are mostly sections close to the borders. The table below shows the missing links according to UEMOA and ECOWAS. More detailed information regarding the individual missing links are provided in Volume 2

<b>Activity</b>	<b>Responsible Organization</b>	<b>Time</b>
<b>I Missing Links</b>		
<p>New or up-dating of feasibility studies for the following links:</p> <ul style="list-style-type: none"> <li>• Karang–Barra (25 km)</li> <li>• Quebo-Border to Guinea (81 km)</li> <li>• Border to Guinea-Bissau–Boké (125 km)</li> <li>• PK36–Pamelap (84 km)</li> <li>• Pamelap–Porto Loko (70 km)</li> <li>• Bandajuma–MRU Bridge (82 km)</li> <li>• MRU Bridge–Klay (69 km)</li> <li>• Ganta–Blay (151 km)</li> <li>• Blay–Blolékin (60 km)</li> </ul>	<p>Government of Gambia</p> <p>Government of Guinea-Bissau Government of Guinea</p> <p>Government of Guinea</p> <p>Government of Sierra Leone</p> <p>Government of Sierra Leone</p> <p>Government of Liberia</p> <p>Government of Liberia</p> <p>Government of Ivory Coast</p>	<p>2004 – 2006</p>

**Volume 3 – The Way Forward****6.2.8 TAH 8: Lagos-Mombasa**

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. The main activities required along the Lagos-Mombasa Corridor are thus concentrated to the countries of Cameroon, CAR and DR Congo outlined below. Details about the individual missing links are available in Volume 2.

Activity	Responsible Organization	Time
<p><b>I Missing Links (within country)</b></p> <p>The requirement for rehabilitation and development along the existing alignment are massive in this corridor. Economic conditions in the short and medium terms will not make it possible to rehabilitate/improve all or even most of the missing link 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"> <li>• Mamfé-Bamenda (123 km)</li> <li>• Fouban-Tibati (326 km)</li> </ul>	Government of Cameroon	
<ul style="list-style-type: none"> <li>• Bondo-Dulia (130 km)</li> <li>• Dulia-Buta (74 km)</li> <li>• Buta-Kisangani (321 km)</li> <li>• Kinsangani-Nia Nia (342 km)</li> <li>• Nia Nia-Mambasa-Komanda (287 km)</li> <li>• Komanda-Beni (125 km)</li> </ul>	Government of DR Congo	

**Volume 3 – The Way Forward**

<b>Activity</b>	<b>Responsible Organization</b>	<b>Time</b>
<b>II Missing Links (Border Connection)</b>		
<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"> <li>• Bambari-Bangassou (352 km)</li> <li>• Bangassou-Bondo (200 km)</li> </ul>	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"> <li>• Ekok-Mamfé (82 km)</li> <li>• Garoua-Boulaï-Bouar (155 km)</li> <li>• Beni-Katwe (80 km)</li> </ul>	<p>Government of Cameroon Government of CAR Government of DR Congo</p>	2004-05
<b>III. Changes / Extension of Alignment</b>		
<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>	2004-05

**Volume 3 – The Way Forward****6.2.9 TAH 9: Beira-Lobito**

This corridor consists of a fairly well developed eastern section and a western one comprising DR Congo and Angola with a number of missing links. With the prolonged period of civil war now coming to an end there should be better possibilities to restart rehabilitation, upgrading and the construction of new roads.

However, the extent of destruction is such that major improvements of the western section of the corridor will take a long time to complete. In the short and medium terms efforts must be directed towards determining domestic priorities and what role the links of this TAH corridor are expected to play in a national reconstruction and development efforts.

<b>Activity</b>	<b>Responsible Organization</b>	<b>Time</b>
<p><b>I Missing Links (within country)</b></p> <p>Provided the missing links in Angola and DR Congo are given sufficient priority in the long term road planning (equivalent) process of the individual countries, efforts should be made to organise the necessary feasibility studies for the following links:</p>	.	2004-2006
<ul style="list-style-type: none"> <li>• Luena Kuito</li> </ul>	Government of Angola	
<ul style="list-style-type: none"> <li>• Nguba-Kolwezi (65 km)</li> <li>• Likasi-Nguba (120 km)</li> </ul>	Government of DR Congo	
<p><b>II Missing Links (border connection)</b></p>		
<p>Provided the two Governments are giving the two links mentioned below sufficient priority concerned RECs could assist in identifying suitable external assistance sources for both the feasibility work and possible future investment requirements.</p> <ul style="list-style-type: none"> <li>• Kolwezi-Dilolo (428 km)</li> <li>• Dilolo-Luena (334 km)</li> </ul>	Government of DR Congo Government of Angola	2004 – 2005

**Volume 3 – The Way Forward**

<b>Activity</b>	<b>Responsible Organization</b>	<b>Time</b>
<b>III. Changes / Extension of Alignment</b>		
An alternative, more southerly alignment of part of the corridor through DR Congo has been tentatively proposed by SATCC	SATCC to review this proposal with other concerned RECs and the Government of DR Congo	2004 – 2005