NEPAD: THE TRANSPORT CHALLENGES

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ABSTRACT

The objective of the New Partnership for Africa’s Development (NEPAD) is to give impetus to Africa’s development by bridging existing gaps in priority sectors in order to enable the continent to catch up with developed parts of the world, to eradicate poverty in Africa and to place African countries on a path of sustainable growth and development and thus halt the marginalisation of Africa in the globalisation process.

The achievement of NEPAD’s political, security, economic, social, and environmental goals are dependent on certain enablers, one of these being the transport of people and goods. The National Department of Transport sees the essential role of transport in NEPAD as being that of an opportunity catalyst.

The paper looks at the current state of transport in Africa, current involvement by South African transport organisations in Africa, identifies transport-related issues constraining development, summarises actions to meet some of these challenges, and identifies the need for a focussed transport sector strategy in support of NEPAD.

1. INTRODUCTION


The New Partnership for Africa’s Development (NEPAD) is a pledge by African leaders, based on a common vision and a firm and shared conviction, that they have a pressing duty to eradicate poverty and to place their countries, both individually and collectively, on a path of sustainable growth and development and, at the same time, to participate actively in the world economy and body politic.

The objective of NEPAD is to give impetus to Africa’s development by bridging existing gaps in priority sectors in order to enable the continent to catch up with developed parts of the world, to eradicate poverty in Africa and to place African countries, both individually and collectively, on a path of sustainable growth and development and thus halt the marginalisation of Africa in the globalisation process, and to promote the role of women in all activities.

The strategy has the following expected outcomes:
- Economic growth and development and increased employment
- Reduction in poverty and inequality
- Diversification of productive activities, enhanced international competitiveness and increased exports
- Increased African integration

NEPAD has identified a number of proposed priority actions and interventions under the headings:
- Peace and security
- Democracy, political, economic and corporate governance
- Regional co-operation and integration
- Agriculture and market access
- Health
- Education
- Information and Communication
- Infrastructure development
- Increased capital flows - ODA reforms and debt reduction
- Supporting economic growth, investment and sustainable development
- Water resource development
- Management of the environment

The achievement of NEPAD’s political, security, economic, social, and environmental goals are all dependent on certain enablers. One of these is the transport of people and goods. Such transport, in the African context, includes transport by road, rail, air, water (rivers and lakes, ocean shipping), and pipelines, by both motorised (private and public) and non-motorised (pedestrian, cycle, head-borne and animal-drawn) means, as well as the infrastructure, vehicles, rolling stock, aircraft and ships, and related systems.

This document looks at the current state of transport in Africa, at transport-related constraints and issues, and then identifies needed priority improvements to transport systems in Africa. These proposals are at strategic rather than detailed or project level. The latter will require to be identified and planned by each region or even individual state. Finally, since this is a South African document, it lists objectives and action plans of the National Department of Transport in support of NEPAD.

2. THE CURRENT STATE OF TRANSPORT IN AFRICA

2.1 The African road network
Roads are the dominant mode of transport in Africa. Road transport accounts for 80 to 90% of inter-urban transport of goods in African countries, and for 80 to 99% of passenger movements (UNTACDA II).

<table>
<thead>
<tr>
<th>REGION</th>
<th>ROAD NETWORK (km)</th>
<th>SURFACED NETWORK (km)</th>
<th>UNSURFACED NETWORK (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Africa</td>
<td>115,677</td>
<td>18,531</td>
<td>97,146</td>
</tr>
<tr>
<td>East Africa</td>
<td>445,018</td>
<td>103,600</td>
<td>341,418</td>
</tr>
<tr>
<td>North Africa</td>
<td>292,790</td>
<td>161,825</td>
<td>130,965</td>
</tr>
<tr>
<td>Southern Africa</td>
<td>801,751</td>
<td>235,154</td>
<td>566,597</td>
</tr>
<tr>
<td>West Africa</td>
<td>409,377</td>
<td>91,660</td>
<td>317,717</td>
</tr>
<tr>
<td>TOTAL AFRICA</td>
<td>2,064,613</td>
<td>610,770</td>
<td>1,453,843</td>
</tr>
</tbody>
</table>

Source: UNTACDA II
2.2 The African rail network
Railways have played an important role in the development of Africa since the early 1900s. In some countries they remain the primary mode of freight transport, but in the more developed countries they are facing increasing competition from road freight transport, resulting in declining viability and pressures to close the lower volume lines.

There are 38 railway systems in Africa. Seventeen countries have neither national railway nor any section of an international railway.

Table 2. The African rail network.

<table>
<thead>
<tr>
<th>REGION</th>
<th>NETWORK (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Africa</td>
<td>19,931</td>
</tr>
<tr>
<td>West Africa</td>
<td>9,717</td>
</tr>
<tr>
<td>Central Africa</td>
<td>2,526</td>
</tr>
<tr>
<td>East Africa</td>
<td>19,293</td>
</tr>
<tr>
<td>Southern Africa</td>
<td>38,513</td>
</tr>
<tr>
<td>TOTAL AFRICA</td>
<td>89,380</td>
</tr>
</tbody>
</table>

Source: UNTACDA II

2.3 Air transport in Africa
Many countries have established their own government-owned national flag carrier airlines, but are moving away from this in the face of rising costs and competition. Deregulation and liberalisation of air transport since the 1990s has been implemented in many countries. Air transport in Africa is small in comparison with other continents:

Table 3. Africa’s share of global traffic in 1999.

<table>
<thead>
<tr>
<th>REGION</th>
<th>% OF PASSENGERS CARRIED</th>
<th>% OF PASSENGER-km CARRIED</th>
<th>% OF FREIGHT-km CARRIED</th>
</tr>
</thead>
<tbody>
<tr>
<td>World Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Africa</td>
<td>2.0</td>
<td>2.2</td>
<td>2.0</td>
</tr>
<tr>
<td>Middle East</td>
<td>2.5</td>
<td>2.8</td>
<td>3.1</td>
</tr>
<tr>
<td>South America and Caribbean</td>
<td>6.1</td>
<td>4.8</td>
<td>4.5</td>
</tr>
</tbody>
</table>

Source: UNTACDA II

Some alliances, cooperation, code sharing, franchising and equity participation has been implemented among African airlines, but this is very limited in comparison with the trend on other continents.

2.4 Maritime transport in Africa
Ocean transport is an important mode for Africa’s exports, but the high costs associated with the long distances are detrimental to the competitiveness of African exports. Maritime transport accounts for 92 to 97% of international trade in Africa (UNTACDA II).

Africa’s share of the global tonnage of ocean-going ships is only about 1%.

Coastal transport between countries around the African coast is limited, but important in some cases.
2.5 Ports
Africa, with 53 countries of which 38 are coastal or island countries and 15 are landlocked, has 80 major ports.

Table 4. World Trade Moving through Ports, 2000.

<table>
<thead>
<tr>
<th>REGION</th>
<th>LOADING (1000 tonnes)</th>
<th>DISCHARGING (1000 tonnes)</th>
<th>TOTAL (1000 tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>World Total</td>
<td>5230</td>
<td>5330</td>
<td>10560</td>
</tr>
<tr>
<td>Africa</td>
<td>515</td>
<td>212</td>
<td>726</td>
</tr>
</tbody>
</table>

Source: UNCTAD

2.6 Inland water transport
Inland water transport, on rivers and lakes has potential in Africa, but has not been developed as fully as it might be.

2.7 Multi-modal transport
Containerisation and container traffic is growing. Other developments are the harmonisation of international trade procedures, and the establishment of dry ports and inland container terminals, particularly in South and East Africa.


<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>1000 TEUs</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>1560</td>
</tr>
<tr>
<td>Egypt</td>
<td>802</td>
</tr>
<tr>
<td>Kenya</td>
<td>315</td>
</tr>
<tr>
<td>Morocco</td>
<td>245</td>
</tr>
<tr>
<td>Ghana</td>
<td>208</td>
</tr>
<tr>
<td>Mauritania</td>
<td>136</td>
</tr>
<tr>
<td>Mauritius</td>
<td>136</td>
</tr>
<tr>
<td>Cameroon</td>
<td>118</td>
</tr>
<tr>
<td>Senegal</td>
<td>115</td>
</tr>
<tr>
<td>Tanzania</td>
<td>108</td>
</tr>
</tbody>
</table>

Source: UNCTAD

3. CURRENT ISSUES IN TRANSPORT IN AFRICA

The extent and capacity of the African transport system described in the previous section is inferior in comparison with that on other continents, and inadequate for the delivery of social services by governments, for trade between countries on the continent, and to make exports globally competitive. Some specific current issues are the following.

3.1 Road transport
- Lack of an adequate spinal road network providing interconnectivity between the continent’s major ports, points of production and consumption
- Need for increased road density and distribution road network to enable improved accessibility for users
- Generally poor roads serving rural communities.
- Insufficient finance to extend and maintain the road system
- Low resource allocation for maintenance, which generally accounts for less than half of the requirements across the continent
Generally poor and deteriorating condition of the road system
High vehicle operating costs resulting from the poor condition of the road system
Road vehicle overloading resulting in premature damage to roads
Lack of harmonisation of vehicle mass and dimension regulations
Lack of harmonisation of road user charging
High age of the road vehicle fleet, and unroadworthiness, particularly of public transport and freight vehicles, in many African countries
Poor road safety, with casualty rates in the continent as a whole, and in some countries in particular, the highest in the world.

3.2 Rail transport
- The legacies of colonial partition and colonial interests have resulted in rail systems reflecting a predominantly extractive economic focus
- Poor interconnectivity between the rail systems of some countries, particularly in West and Central Africa
- There are nine different rail gauges in Africa. The most common is the 1,067m (3’6”) gauge used in South Africa and 22 other networks of the 38. The different rail gauges requiring transhipment at junctions such as Dar es Salaam have a detrimental effect on the competitiveness of long distance rail
- Generally a lack of, inadequate maintenance, and poor availability of rolling stock, particularly traction equipment, that causes a drop in available transport capacity
- Utilisation of the available rolling stock is generally low, with inadequate information on the current location of rolling stock and consignments
- Declining viability of rail systems as a result of competition from road freight transport, with pressures to close the lower volume lines
- Substantial growth in unit costs.

3.3 Aviation
- Generally poor financial performance of African airlines, because of low volumes, small airlines lacking economies of scale, high insurance costs, and low productivity, resulting in closure of some airlines
- Inadequacy of regional air services. It is difficult to travel from one point in Africa to another. Often the best route from point A to point B in Africa is via London or Paris.
- High user charges at some African airports, not matched by high level of service
- Serious deficiencies in air traffic control over much of Africa’s airspace
- Unsatisfactory security at many of the continent's airports
- A need to improve and increase the training of air transport staff – both air-side and ground-side

3.4 Marine transport
- The sea leg of the transport of imports and exports is unduly high compared with the world. UNTACDA II indicates that the freight factor costs of imports to African countries in 1998 were 11% of the value of imports, compared to 5% globally.
- Coastal shipping has not developed to its full potential, partly as a result of unfavourable fees and user charges at ports.
- The high age of much of Africa’s merchant fleet means that much of it is obsolete and needs replacement. The exception is container ships, which are comparable in age with the global average.

3.5 Modal integration
- Modal exchange facilities are generally inadequate, particularly those serving inland waterways
3.6 General
The UNTACDA II evaluation highlighted the following challenges, which needed to be addressed by a succeeding programme:
- Policies to encourage private sector participation
- Lack of financing
- High cost of transport services for both freight and passengers
- Lack of capacity
- Poor facilitation across borders
- Poor safety and security
- Environmental degradation
- Access for the poor
- Lack of databases and information
- Missing infrastructure links

Table 6. Summary of database of South African Transport organisations active in Africa.

<table>
<thead>
<tr>
<th>ORGANISATION</th>
<th>NATURE OF ACTIVITY</th>
<th>COUNTRIES</th>
<th>(R mn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA Civil Aviation Authority (SACAA)</td>
<td>Safety oversight, flight calibration services, accreditation, research on airspace control, harmonisation, capacity enhancement</td>
<td>SADC countries</td>
<td>&gt;18</td>
</tr>
<tr>
<td>Air Traffic and Navigation Services (ATNS)</td>
<td>SADC VSAT terminal, ASECNA interconnectivity, air traffic services, aeronautical information services, training, team resource management, search and rescue, technical support</td>
<td>SADC countries, Algiers, Burundi, Cape Verde, DRC, Ethiopia, Ghana, Guinea, Liberia, Madagascar, Nigeria, Rwanda, Seychelles, Uganda</td>
<td>864</td>
</tr>
<tr>
<td>SA Maritime Safety Authority (SAMSA)</td>
<td>IMO Integrated Technical Co-operation Programme, search and rescue training</td>
<td>Various African countries as requested by IMO</td>
<td>1</td>
</tr>
<tr>
<td>Cross-Border Road Transport Agency (C-BRTA)</td>
<td>Cross-border HIV/AIDS projects, transformation, awareness</td>
<td>SADC countries</td>
<td>1</td>
</tr>
<tr>
<td>Airports Company of SA (ACSA)</td>
<td>Airport consultancy services, airport operation concessions, management and administration contracts, airport feasibility studies</td>
<td>SADC countries, Algeria, Cape Verde, Ethiopia, Ghana,</td>
<td>2</td>
</tr>
<tr>
<td>Spoornet through Comazar</td>
<td>Rail way operation concessions, corridor operations, new railway infrastructure (BOT), railway rehabilitation, inland container depot (dry port),</td>
<td>Algeria, Angola, Burundi, Congo (Brazzaville), Djibouti, Ethiopia, Ghana, Kenya, Madagascar, Mozambique, Rwanda, Senegal, Tanzania, Uganda, Zambia, Zimbabwe,</td>
<td>18756</td>
</tr>
<tr>
<td>Protekon</td>
<td>Rehabilitation and maintenance of railway infrastructure and rolling stock, quays, feasibility studies, evaluation and planning for concessioning</td>
<td>Ghana, Madagascar, Mauritius, Mozambique, Tanzania, Uganda, Zambia</td>
<td>458</td>
</tr>
</tbody>
</table>
4. INVOLVEMENT OF SOUTH AFRICAN TRANSPORT ORGANISATIONS IN AFRICA – THE STATUS QUO

Various South African transport organisations – public bodies, government agencies, parastatals, and the private sector, have been active in Africa, dating from before the NEPAD initiative. The Department of Transport maintains a database of such involvement (Department of Transport, 2002). This is summarised in Table 6, which mentions the nature of the activities being undertaken beyond South Africa’s borders throughout Africa, and the financial implications of those activities.

5. PRIORITY IMPROVEMENTS TO TRANSPORT IN AFRICA IDENTIFIED BY NEPAD

The founding document on NEPAD suggested a number of sectoral priorities relating to bridging the infrastructure gap (NEPAD Secretariat, 2001):

Infrastructure Objectives:
- To improve access to, and affordability and reliability of, infrastructure services for both firms and households;
- To enhance regional cooperation and trade through expanded cross-border development of infrastructure;
- To increase financial investments in infrastructure by lowering risks facing private investors, especially in the area of policy and regulatory frameworks;
- To build adequate knowledge and skills in technology and engineering with a view to installing, operating and maintaining “hard” infrastructure networks in Africa.

Transport Objectives:
- To reduce delays in cross-border movement of people, goods and services;
- To reduce waiting time in ports;
- To promote economic activity and cross-border trade through improved land transport linkages;
- To increase air passenger and freight linkages across Africa’s sub-regions.

Transport Actions:
- Establish customs and immigration task teams to harmonise border crossing and visa procedures;
- Establish and nurture Public-Private Partnerships (PPPs) as well as grant concessions towards the construction, development and maintenance of ports, roads, railways and maritime transportation;
- Promote harmonisation of transport modal standards and regulations, and the increased use of multi-modal transport facilities;
- Work with regional organisations to develop transport development corridors;
- Promote PPPs in the rationalisation of the airline industry and build capacity for air traffic control.

NEPAD has since prepared a Short-Term Action Programme of infrastructure projects (NEPAD Secretariat, 2002). This will be followed by a Medium- and Long-Term Action Programme that will include projects and initiatives that require more time for preparation and development, and that will be selected on a strategic basis.

The selection criteria for the short-term projects were:
- Projects that are at an advanced stage of preparation and that can be fast-tracked
- Projects that support both a regional approach to infrastructure provision and regional integration
- Projects that have stalled for political reasons and where NEPAD’s intervention could be expected to make a difference
- Initiatives that offer solutions to regional policy, regulatory or institutional blockages to regional infrastructure activities
- Projects that respond to the involvement of the private sector in infrastructure provision

The resulting list of short-term actions, and estimated resource requirements, appears in Table 7.

Table 7. Summary of NEPAD Short–Term Transport Infrastructure Action Plan.

<table>
<thead>
<tr>
<th>FOCUS</th>
<th>OBJECTIVE</th>
<th>RESOURCES REQUIRED (MILLION US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade corridors without borders and barriers</td>
<td>To facilitate trade by minimising transit times and associated transit costs</td>
<td>38</td>
</tr>
<tr>
<td>Better and safer roads</td>
<td>Institutional, physical works, and studies to reduce transport time and costs for people and goods by accelerating the development of road infrastructure and strengthening of maintenance capacity, particularly on regional transport corridors</td>
<td>1250</td>
</tr>
<tr>
<td>Competitive and seamless railway systems</td>
<td>To improve the efficiency, cost-effectiveness and reliability of rail services, rehabilitate weak links, and ensure maintenance</td>
<td>196</td>
</tr>
<tr>
<td>Efficient ports</td>
<td>To improve the performance and modernise regional ports as Africa’s gateway to worldwide logistic chains</td>
<td>258</td>
</tr>
<tr>
<td>Safe seas and ports</td>
<td>To build Africa’s capacity to protect its seaboard from the risks of maritime pollution and to ensure the safety of its ports</td>
<td>7</td>
</tr>
<tr>
<td>Inland waterways</td>
<td>To establish the regulatory framework and basic infrastructure to support the development of commercially viable and safe transport services on inland waterways</td>
<td>8</td>
</tr>
<tr>
<td>Safe, secure and efficient skies and airports</td>
<td>To lower the cost of air travel and freight, and reduce the isolation of Africa, by the liberalisation of air transport and upgrading of air safety and security</td>
<td>244</td>
</tr>
<tr>
<td>Implementation support</td>
<td>To facilitate the implementation of the NEPAD transport programme</td>
<td>20</td>
</tr>
<tr>
<td>Total – Transport Sector</td>
<td></td>
<td>2021</td>
</tr>
</tbody>
</table>

Source: NEPAD Secretariat, 2002

It is envisaged that these projects will be implemented by regional and national institutions, under the umbrella of the relevant Regional Economic Community.¹

¹ North Africa: Union of the Arab Maghreb (UMA), Community of the Sahel-Saharian States (CEN-SAD)
West Africa: Economic Community of West African States (ECOWAS), West African Economic and Monetary Union (UEMOA)
East Africa: Common Market for Eastern and Southern Africa (COMESA), East Africa Community (EAC)
Central Africa: Economic Community of Central African States (ECCAS), Economic and Monetary Community of Central Africa (CEMAC)
NEPAD will facilitate collaboration and exchanges between the RECs and will help muster political support for needed reforms and joint actions.

6. OBJECTIVES AND ACTIONS OF THE SOUTH AFRICAN NATIONAL DEPARTMENT OF TRANSPORT IN SUPPORT OF NEPAD

Key issues in creating an effectively coordinated African response to global market challenges are market access, mobility and systems integration. The National Department of Transport will be contributing actively to the practicality realisation of both NEPAD and SADC development goals in several major areas. A strategy to focus the Department of Transport’s activities in support of NEPAD is being prepared, and a discussion document was the subject of a workshop with key stakeholders and role-players in February 2003 (Department of Transport, 2003). Some of the Department’s current actions are the following.

6.1 Road transport
- Within the context of the SADC protocol on transport, communications and meteorology, a great deal of work has already been done to introduce commercial management practices in member states national roads sector to harmonise driver licensing, road numbering, road signage, and overload management and to introduce road funding systems which incorporates the user-pay principle. Common understanding are coming into place to cover issues of mutual concern such as fuel levies (designated as road charges), vehicle licence fees, road tolls, abnormal and awkward loads, weight distances type charges, streamlined efficient passport control and custom posts, cross-border user charges and entry fees payable by foreign registered vehicles. All of these initiatives must increasingly be developed and promoted at a wider African level to create the levels of efficiency and co-operation upon which the vision of a regenerated African economy depend.
- Road infrastructure provision and maintenance suffers from severe backlogs. Financing, institutional and capacity constraints, and fragmented management systems are some of the problems. A Road Infrastructure Strategic Framework is being developed in South Africa, to address this problem across all spheres of government.
- In appropriate cases public/private partnerships for economic road projects should be promoted.
- Public passenger transport plays an important role on a continent where many are poor. There is a need for improvement of quality and differentiation, while curtailing costs. Unique to Africa is the significant role that is played by informal sector public transport. It needs to be nurtured, but at the same time channelled so as to improve level of service and safety. NDoT has a comprehensive programme to bring about such improvement in South Africa.
- Cross border road passenger transport, especially by minibus-taxi, sometimes results in conflict between operators in the two countries concerned. The Cross-Border Road Transport Agency seeks to minimise this through liaison with its equivalent bodies in neighbouring countries.
- Road Safety in Africa is poor, and an integrated Road to Safety Strategy is being implemented in South Africa. It needs to be expanded in the region.
- A great deal of freight is conveyed by road. In line with world trends, this has been largely deregulated, but quality and safety regulation must remain. Regulation and policing is required to ensure minimum road damage, and to ensure that road freight bears at least some of the externality costs, and that the playing field between road and rail is levelled. In South Africa NDoT and the Provinces jointly are implementing a comprehensive package to control overloading. Overload control is also a priority issue in SADC, with the aim of improved co-ordination in the common use of vehicle weighing bridges, as well as the improvement in the enforcement of regulations.
• Differences in road vehicle mass (axle and GVM) and dimension limits between African countries cause problems with trucks moving across borders, and need to be harmonised.
• Low road transport costs (cents per ton-km) are a critical determinant of international competitiveness, and limitation of increases in transport costs needs to weigh heavily when decisions on regulations, taxes etc are taken.

6.2 Non-motorised transport
Because many communities in Africa have low income levels or function on a subsistence economy, people are unable to afford motorised transport, and have to walk, or make use of cycles, sleds, or animal-drawn transport to access markets, education and health services, and to transport their livestock and crops. Generally there are no made roads serving such communities, and they have to move along tracks. In order to improve the quality of life of such persons, and to achieve the WSSD goals relating to poverty alleviation, health and education, it is important to improve such infrastructure and promote improved means of transport, albeit non-motorised.

• As a first step in a non-motorised transport programme, NDoT has developed its Shova Ka Lula bicycle project, to make available bicycles at lower cost for use especially by rural schoolchildren.
• NDoT is now extending its NMT programme, with thrusts centred on addressing the issue of gender in rural transport through supporting existing self-help projects and low-income households by promoting ownership and usage of appropriate rural transport operations (including animal/push carts, tractor trailers and bicycles)

6.3 Rail transport
• Promoting rail systems integration, which involves replacing a colonial rail geography that served primarily extractive purposes, with a strategic corridor based approach to regional market integration that standardises rail gauges and promotes public private partnerships to mobilise the very large sums of money required for capital investment in rail infrastructure.
• Real-time rolling stock and consignment tracking systems such as Spoornet’s SPRINT and the advanced cargo information system ACIS being developed in Central Africa should be integrated throughout the continent.
• The extension of the rail system in line with economic development is possible but due to lack of resources, public-private partnerships have arisen and must be promoted.
• Restructuring of rail to improve efficiency and competitiveness is in progress in many countries, and needs to be promoted.
• Rail safety in South Africa is to be improved with the implementation of a Rail Safety Regulator.

6.4 Transport corridors
• The NDoT and the Department of Trade and Industry are actively promoting corridor development and spatial development initiatives. A priority is to connect South Africa with the Copper Belt and the Great Lakes Region through road and rail improvements. Also required are short railway links to connect the Great Lakes States with each other and with Zambia, as well as the upgrading of lake ports on the route, as a means of strengthening market integration.
• The Departments support the upgrading of border posts to improve the flow of goods and passengers.

6.5 Aviation
Liberalization and provision of adequate air services to countries and air services in Africa needs to be accelerated.
- The Yamoussoukro Decision needs to be implemented in a way that ensures that African aviation benefits from liberalization; The Yamoussoukro Decision, endorsed by the OAU in 2000, has far reaching implications for air services between African States, and some SADC members have expressed concern about the implications of the Decision for their airlines. Mechanisms for implementation, including competition rules and arbitration procedures, are currently being developed to ensure the continued existence of smaller airlines. Emphasis is being placed on the effective monitoring of airline activities and the efficient licensing and regulation of domestic and international air services. This includes promoting safer skies, and promoting efficient and effective aviation networks.
- In order to encourage more international airlines to fly to Africa, and thereby promote tourism, air service agreements with such countries are being increased. In addition, innovative policies and incentives to attract airlines to activate the agreements should be explored. Non-scheduled air services, especially inclusive-tour operations, are complementary to scheduled air services and are therefore not normally included in bilateral air services agreements. Foreign airlines should be encouraged to make use of the inclusive tour charter facilities.
- Carrier alliances, code sharing, equity participation and joint ventures between African airlines are taking place and need to be promoted.
- Safe skies with adequate safety regimes in place across the continent, with appropriate structures and systems put in place, adequate air traffic and navigation system across the continent with the use of modern technology, the development of an adequate and uniform upper air space control system are under development and need to be accelerated. In regard to the inadequacy of upper airspace control over the African continent, the NDoT with ATNS is participating in the development and establishment of an Upper Airspace Control Centre which is a regional initiative aimed at alleviating air traffic problems in the region.
- South Africa has benefited from the restructuring of its state airports. Many provincial and local airports require upgrading of the airport network with effective management put into place.
- Planning for the emergence of regional hub airports. An integrated African action plan needs to be developed, in association with ICAO.

6.6 Marine transport
South Africa does not have inland waterway transport, but the shipping routes around the coast are important internationally, and international ocean shipping is a key link in exports, and the high costs associated with the long distances are detrimental to the competitiveness of African exports.

- Coastal shipping, both domestic between South African ports, and regionally between ports on the African continent, needs to be promoted as an alternative to land transport. This requires the review of regulations and practices unfavourable to coastal shipping, and planning and upgrading of ports.
- Port sector reform in South Africa will see the separation of landlord functions from ports operation and a much greater role for private sector participation in the operation of ports.
- There are economic benefits to be attained from port specialisation (bulk minerals, bulk grain, containers, fresh/perishable produce) and operation of the ports as a total system rather than individually and in competition with one another.
- Major investments in South African transport infrastructure include the development of Nqgqura deepwater port at Coega, and upgrading of Richards Bay and Durban ports, at a cost of R3.5 billion over 3 years. The upgrade of the car terminal in Durban, the continued world-class operation of the Richards Bay coal terminal and the commencement of the construction of the Ngqura port and the Coega IDZ stand out as major milestones in the further development of our ports infrastructure.
- The IMO has identified fishing as one of the most dangerous professions in the world and South Africa continuously experiences casualties in its fishing industry. The training of seafarers is
critical and the SA Maritime Safety Authority is developing a comprehensive programme to improve the safety of fishing vessels.

- South Africa has been identified as a focal point for a regional search and rescue centre, and is establishing a maritime rescue control centre. Search and Rescue agreements with Mozambique, Swaziland and Zimbabwe have been concluded or are being negotiated.
- A Merchant Shipping Agreement (MSA) was signed with Libya, and negotiations are underway with Nigeria, Gabon, Senegal and Russia.
- Planning should be undertaken for the emergence of a limited number of regional hub seaports.
- Seaports need to be integrated with land transport to provide integrated, seamless transport systems with adequate logistical frameworks.
- Search and rescue systems are being improved, and must be integrated around the continent.
- Promoting effective and efficient maritime transport services, which involves creating seamless land-sea-air transport systems, build up advanced logistical frameworks, supported by rationalised and integrated search and rescue services underpinned by systematic human resource development and capacity building programmes

6.7 Integrated logistics
The NDoT is in the process of drafting a National Freight Logistics Framework in trying to address the problems of inefficiencies faced by sellers and buyers of goods and services in the entire logistics chain. The process extends beyond transport system to include communication, warehousing and distribution, which are competences that do not lie within NDOT but with other departments. In trying to mitigate this problem, the Department is part of a Freight Logistics Task Team set up by Oversight on the instructions of Cabinet to look at the entire logistics chain and how best can we improve the current port congestion problems by addressing the entire transport system and related services infrastructure.

6.8 Harmonisation
Harmonisation is an important issue in transport. The SADC Protocol on transport has been signed, but implementation of the process has been slow and the Protocol needs to be implemented more decisively. We have succeeded in introducing common road signs in SADC (overcoming the language barrier). But in road freight maximum loads allowed, use of trailers, insurance and tariffs, harmonisation has yet to be achieved. Harmonisation needs to extend beyond SADC, throughout Africa.

6.9 Development of human resources and capacity
Many African countries experience shortages of skills and capacity to develop and manage their transport systems. Local capacity needs to be developed, and reliance on foreign expertise diminished. South Africa is addressing this through training (Transport Education and Training Authority and Centres of Development), affirmative procurement, and the promotion of SMMEs.

6.10 Financing
The NDoT supports the use of multiple sources of funding for transport infrastructure including but not limited to public sector investment and capital subsidies, user charging, and concession contracts that involve the private sector.

The NDoT supports appropriate use of PPPs especially in the road development and maintenance sphere. Since 1995 three major PPP road projects have been initiated, namely the N4 Maputo Development Corridor Toll Road, the N3 Toll Road, and the N4 Platinum Toll Road, and the concept has proved highly successful.

In addition, a tendered contracting regime that is transparent and well managed (e.g. road-based passenger transport contracts) is a PPP tool, of which the NDoT makes extensive use. The challenge
for implementing PPPs in transport is to ensure that Government systems are in place to effectively share and manage the risk with the private sector.

**6.11 Transport Institutions and Service Delivery**
The NDoT supports innovative institutional measures to enhance transport service delivery (e.g. enabling the establishment of local sphere Transport Authorities; the creation of agencies including those for National Roads, Commuter Rail assets as well as a National Ports Authority; as well as the involvement of the private sector as a strategic equity partner in Airports management).

**6.12 Environmental impacts**
The NDoT is committed to promoting more sustainable transport solutions and usage. This applies to promoting better and safer public transport and non motorised transport which emit fewer pollutants; considering environmental impacts when developing road infrastructure, ensuring the sustainability of pollution prevention (through SAMSA) and reducing environmental risks (decommission of ships, spillage of oil and other hazardous and noxious substances and disposal of waste at sea) as well as developing measures to limit air and noise pollution (aircraft noise control and engine emissions reduction measures, promoting rail freight etc.)

**7. CONCLUSION**

The National Department of Transport is committed to supporting the NEPAD initiative, and is proud of the involvement in Africa’s transport sector by South African organisations which already exists. There is however a need to focus South Africa’s limited resources in a manner which will most benefit NEPAD, and to this end the Department is developing a transport sector strategy for South Africa’s involvement in NEPAD.

**8. REFERENCES**

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Biography

Mr Sipho Khumalo currently holds a position of Deputy Director-General: Land Transport Management at the National Department of Transport (NDoT). He is responsible for road traffic safety and overloading control; the development, adequate maintenance and the financing of transport infrastructure and oversight role of the South African National Roads Agency Limited and Cross Border Roads Transport Agency. He was working at CSIR Transportek before joining NDoT and his last position at the CSIR was that of General Manager: Traffic Management Programme (1998-2000).

Mr Khumalo holds a Masters degree in Management (Public & Development Management) from the Graduate School of Management, Wits University, which he completed in 2000, and has attended various specialised courses including Advanced Leadership Programme. He has received a number of awards such as Rural Accessibility Project: Best Joint Venture Team Award (CSIR Transportek: 2000), Special Award for Turnaround: For turning losses into a positive margin (CSIR Transportek: 1998) and Top 100 Black Achievers’ Award (Tribute Magazine: 1998). Mr Khumalo is also a member of the following professional societies: Project Management Institute of SA (PMISA), Chartered Institute of Transport and Logistics (CIT) and Black Management Forum (BMF). His accomplishments include the following: Being charged with the responsibility of developing the roads development plan for South Africa, developing and launching a comprehensive road traffic safety strategy for SA and leading a CSIR technical team commissioned by the Minister of Transport to investigate the causes of 13 bus accidents in 1999.