



Africa Union Commission



Transport Policy Paper

Delivering sustainable transport for **realising AU** Agenda 2063

Transport boosting Africa's economy and society

February 2017

Support to the Transport Sector Development Programme

Lot 1. Support to the AUC Department of Infrastructure and Energy in transport policy harmonization and transport sector services development & Support to PIDA PAP for the start-up of smart corridor activities

Preface

I am very pleased to present this transport policy paper, which we have entitled *Delivering Sustainable Transport for realising AU Agenda 2063: Transport boosting Africa's economy and society*. This paper reflects our shared vision on how transport can and must contribute to the challenges on the road to fulfilling the aspirations of Agenda 2063.

Agenda 2063 is a strategic framework for the socio-economic transformation of Africa over the next 50 years that builds on and seeks to accelerate the implementation of many continental initiatives for economic prosperity and sustainable development. One of these initiatives is the Programme for Infrastructure Development in Africa (PIDA). Formulating Agenda 2063 involved extensive consultation with stakeholders and builds on national, regional and continental experience and good practices, including those in the transport sector.

In April 2014, African Ministers for Transport adopted the Malabo Declaration on Transport Sector Development in Africa. The Ministers endorsed the decision to request the African Union Commission (AUC) to elaborate a long-term transport strategy for the continent to respond to the transport challenges of Agenda 2063.

In response, AUC has taken an integrated approach to the transport modes in preparing this policy paper, which sets out a common framework for delivering sustainable transport at continental, regional and country level. It develops ways to reinforce partnerships with the private sector and our development partners, in particular, the European Commission. Working with these partners will stimulate innovative ways to bridge the financial gap to achieve these ambitious plans and to reduce Africa's aid dependency.

I invite all stakeholders in transport to adopt the policies and strategies this paper promotes thereby ensuring transport contributes effectively to realising Agenda 2063.

Cheikh Bedda
Director, Department of Infrastructure and Energy
Africa Union Commission

Executive summary

Transport networks and services throughout Africa have been steadily extended and improved over the last two decades. But there is a substantial task ahead to ensure transport contributes to achieving the socio-economic transformation of Africa in the coming 50 years as set out in Agenda 2063. This task also includes achieving the transport-related targets of UN Sustainable Development Goals.

This transport paper sets out policies and strategies to ensure that transport contributes sustainably to achieving the ambitious and aspirations of Agenda 2063. These policies and strategies are based on the recommendations of the Malabo Declaration of the African Ministers for Transport. They draw upon lessons learned by the AU, RECs and Member States in implementing a corridor approach to transport within and between regions, and a sectoral approach at country level. These approaches encompass all transport modes – road, rail, air, maritime and inland waterways, and urban mobility – and all services for the movement of people and goods.

The key transport policy responses to achieving Africa’s aspirations are:

Interconnected transport infrastructure to integrate and politically unite Africa

To fulfil Agenda 2063 aspirations for African integration and political unity, the continent will be interconnected by means of strategic transport corridors. Thus, the policy goal is to maintain and upgrade existing *Trans-African Highways* and to build the missing links in connecting Africa’s regions and countries. Interconnectivity also depends on constructing and maintaining an *African Integrated High Speed Train Network*. These road and rail corridors will link coastal and landlocked countries to the continent’s major ports that connect with Europe via the *Motorways of the Seas* and provide access to world markets. An essential infrastructure link is the further development of transport by inland lakes and waterways. Interconnected aviation within Africa and to the rest of the world requires the formation of a *Single African Air Transport Market*, full implementation of the *Yamoussoukro Decision* and extension of the European Geostationary Navigation Overlay Service to Africa.

Transport services for the economic prosperity of Africa

Economic prosperity depends on the free movement of goods and people along regional corridors and on national networks throughout Africa and with the rest of the world. Free movement will be achieved by harmonising transit regulatory frameworks and setting up SMART corridors that operate intelligent systems for road and rail transport. Corridors that incorporate one-stop border posts, and deregulated and liberalised road haulage will facilitate multimodal transport from national gateway ports to distant inland destinations. National networks of properly maintained rural roads will contribute to boosting agricultural production. Furthermore, Open Skies agreements will liberalise air travel, and inter- and intra-regional trade by air.

Transport creating employment, facilitating access to jobs and social amenities

The transport sector can and must create more jobs for men, women and girls, as well as for unemployed youth through, for instance, labour-based approaches mainly for road construction and maintenance, and service provision. Road building and upgrading programmes are urgently required to provide people in isolated rural areas with access to employment and social amenities. Safe and affordable urban mobility to include the large

numbers of pedestrians and cyclists is vital for employment opportunities and the social development of people living in Africa's fast growing cities.

Ensuring safe and secure movement of people and goods

Drastically cutting road fatalities and injuries under SDG 3 requires sufficient numbers of safety agencies with the capacity and resources to enforce safety regulations, driver licencing and vehicle safety standards including axle load limits. Rail safety rests on the adoption and implementation of interoperability safety standards between railway systems and common safety management systems. Rigorous implementation of ICAO standards and practices in air traffic management and airworthiness is the tangible means to improving Africa's aviation safety, while reducing the risk of maritime collisions depends on adherence to IMO and ILO standards. Protecting air passengers from sabotage and mariners from piracy is contingent on airline and maritime agencies strengthening security controls and vessel and aircraft inspections as well as participating in global security projects to prevent sabotage and piracy.

Ensuring urban mobility and access in Africa's mega-cities, capitals and secondary cities

Safe urban mobility is vital for access to employment and social amenities and essentially depends on integrating land-use planning and transport service demand. Access to urban amenities requires networks of footpaths for pedestrian and cyclists separated from motorised traffic. Urban road congestion can be reduced by improving traffic management systems, enforcing traffic regulations and designing new infrastructure to reduce traffic congestion. Moreover, public and private transport will need to be better interlinked to provide safe and affordable services and where viable, bus rapid transport and mass transit systems introduced with private sector participation.

Making transport climate resilient and reducing emissions

Transport infrastructure is a valuable public asset that must be protected from the vagaries of climate change. To this end, funds will have to be allocated to protect roads and railways from flooding and subsequent closure. Higher standards will have to be adopted for new construction and maintenance, and upgrading infrastructure in vulnerable areas. Furthermore, new and reinforced sea defences are of the utmost importance in ports, urban areas, low lying coastal areas and island states threatened by rising sea levels. Concurrently, effort must be made to reduce greenhouse gas emissions by strict adherence to vehicle emission standards, use of fuel-efficient and low emission vehicles, and appropriate road-user charges to encourage a switch to rail and inland waterway transport. Reducing emissions also calls for closer cooperation of Member States, airlines and shippers to enforce compliance with ICAO and IMO international standards.

Transparent governance and strong institutions

Continued political commitment is vital to strengthening transport institutions at national, regional and continental level. The starting point must be to support transport institutions to recruit and retain sufficient well-trained human resources. This can be achieved through closer coordination of transport and education policies to establish appropriate training programmes in African universities and colleges and by stimulating the uptake of students with employment prospects in both the public and private sectors. For instance, civil aviation authorities require highly skilled personnel to operate modern airports using advanced navigational systems.

Transport institutions will be further strengthened through open dialogue with private sector stakeholders, for instance in rationalising corridor management and increasing the operational efficiency of road funds and road agencies. Furthermore, public-private sector

dialogue is vital in reappraising railway concessions and extending good practices in container terminal concessioning to other port operations

Financing and sustaining interconnected transport systems

Achieving Agenda 2063 aspirations for interconnected transport infrastructure and sustainable transport systems will necessitate raising an additional US\$2 billion each year. More government funding can be generated through more prudent budget execution but mainly by boosting road fund revenues. Even so, governments will need to tap new financing sources. Such sources include sub-regional infrastructure funds, multilateral and bilateral development banks, sovereign wealth funds and the African Climate Change Fund. More finance will have to be raised from private investors by issuing infrastructure bonds and by strengthening partnerships for project delivery under a variety of contractual arrangements. Furthermore, Member States can raise funds with traditional and new donors via innovative financing mechanisms, such as blended financing instruments.

The policy goals, strategies, and priority actions for transport outlined in this paper are directed to achieving the AU Agenda 2063 aspirations. These goals, strategies and actions also commit to realising a prosperous Africa based on inclusive growth and sustainable development, and an integrated continent that is politically united and an influential global player and partner.

Contents

Preface	ii
Executive summary	iii
Acronyms	vii
1. Transport in African and Global aspirations	1
1.1 Transport and Agenda 2063	1
1.2 Transport and the United Nations Sustainable Development Goals	1
1.3 African Transport Ministers and the Malabo Declaration	2
1.4 Scope of the policy paper	3
2. Key transport policy makers	3
2.1 African Union Commission promotes continental policies	3
2.2 RECs facilitate regional transport integration policies	4
2.3 Member States transform regional transport systems	5
2.4 Lessons learned	5
3. Transport's contribution to Agenda 2063	9
3.1 Transport integrating Africa, its regions and countries	10
3.2 Transport transforming trade and commerce	10
3.3 Transport facilitating access to jobs and social amenities	11
3.4 Transport ensuring safe and secure movement of people and goods	12
3.5 Transport becoming resilient and cleaner air	12
3.6 Transport helping Africa reduce development finance needs	12
3.7 Transport contributing to job creation and youth empowerment	12
4. A strategy to deliver sustainable transport	13
4.1 Improving continental and regional connectivity	13
4.2 Reducing transport costs and freight prices	15
4.3 Strengthening transport institutions	16
4.4 Fostering safe and secure transport	18
4.5 Improving urban mobility and accessibility to urban amenities	20
4.6 Promoting resilient and environmentally friendly transport	21
4.7 Mobilising additional finance	22
5. The way forward	23
5.1 Pursue transparent governance	24
5.2 Mainstream safety and security, climate change and social awareness	24
5.3 Upscale efforts for safe affordable urban transport and cleaner air	24
5.4 Raise finance for sustaining transport interconnectivity	25
5.5 Priority actions for the Commission, RECs and Member States	25
Appendix 1 Africa Union Transport Declarations and Decisions	28
Appendix 2 Regional Economic Communities	29
Appendix 3 Trans African Highways, Railways and Ports	30
References	33

Acronyms

ACCF	Africa Climate Change Fund
AfDB	African Development Bank
AFCAC	African Civil Aviation Commission
AICD	Africa Infrastructure Country Diagnostic
AIDI	Africa Infrastructure Development Index
AKIP	Africa Knowledge Infrastructure Program
AMU	Arab Maghreb Union
ASECNA	Agence pour la sécurité de la navigation aérienne en Afrique et à Madagascar
ATC	Air Traffic Control
AU	African Union
AUC	African Union Commission
BDB	Bilateral Development Bank
CAA	Civil Aviation Authority
CAMT	Conference of African Ministers for Transport
CENSAD	Community of Sahel-Saharan States
CMI	Corridor Management Institution
COMESA	Common Market for Eastern and Southern Africa
COSCAPs	Continued Development of Operational Safety and Continuing Airworthiness Programmes
COP	Conference of the Parties
DIE	Department of Infrastructure and Energy
EC	European Commission
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
EGNOS	European Geostationary Navigation Overlay Service
EU	European Union
GHG	Greenhouse Gas
ICAO	International Civil Aviation Organization
IGAD	Intergovernmental Authority on Development
ILO	International Labour Organisation
IMO	International Maritime Organization
LGI	Logistics Performance Index
MDB	Multilateral Development Bank
NEPAD	New Partnership for Africa's Development
NMT	Non-motorized transport
NPCA	New Partnership for Africa's Development & Planning and Coordination Agency
OSBP	One-stop border post
PAP	Priority Action Plan
PIDA	Programme for Infrastructure Development in Africa
PPP	Public Private Partnership
RAI	Rural Access Indicator
REC	Regional Economic Community
RGI	Reference Group on Infrastructure
SAATM	Single African Air Transport Market (SAATM)
SADC	Southern Africa Development Community
SDG	Sustainable Development Goal
SMART	Safety, Mobility, Automated Real Time Traffic Management
SWF	Sovereign Wealth Fund

Transport Policy Paper

SSATP	African Transport Policy Program
STC	Specialised Technical Committee
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNECA	United Nations Economic Commission for Africa
US\$	United States dollar
WHO	World Health Organization
YD	Yamoussoukro Decision

1. Transport in African and Global aspirations

Affordable, efficient and safe transport is vital for the economic and social integration of the African continent, and to the integration of its regions and countries. Trade and economic growth in all sectors including agriculture and tourism depend on sustainable transport infrastructure and services. In the same way, transport is a lifeline for people in urban and rural areas, providing access to jobs, health services, education and other amenities.

The Commission recognises that growth and development in Africa depends on scaling up transport to achieve Africa's aspirations. These aspirations and goals are set out in AU Agenda 2063, which integrates the United Nations Agenda 2030 – Sustainable Development Goals (SDGs), and are complemented by the recommendations of the African Ministers for Transport in the Malabo Declaration.

1.1 Transport and Agenda 2063

Agenda 2063 is a strategic framework for transforming Africa's economy and meeting society's expectations. It builds on the Programme for Infrastructure Development in Africa (PIDA), the New Partnership for Africa's Development (NEPAD), and Regional and National Infrastructure Plans. Agenda 2063 commits to a shared set of seven aspirations, three of which are directly relevant to transport:

- Aspiration 1 A prosperous Africa based on inclusive growth and sustainable development*
- Aspiration 2 An integrated continent, politically united, based on the ideals of Pan Africanism, and the vision of Africa's Renaissance*
- Aspiration 7 Africa as a strong, united resilient and influential global player and partner.*

The other four aspirations cover good governance and the rule of law, peace and security, values and ethics, and people-driven development by Africans. Although not directly linked to transport, these aspirations will enhance the contribution of the transport sector to achieving the Agenda 2063 aspirations.

1.2 Transport and the United Nations Sustainable Development Goals

The Sustainable Development Goals adopted in September 2015 set out 17 goals with 169 associated targets. Three of these goals directly relate to transport with the following targets:

- Target 3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents.*
- Target 3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.*
- Target 9.1 By 2030, develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.*
- Target 9.a Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to*

African countries, least developed countries, landlocked developing countries and small island developing States.

Target 11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children and persons with disabilities and older persons.

These goals give global visibility to stakeholder conviction of transport's role in advancing Africa's economic and social development. The inclusion of transport in the SDGs will facilitate the Commission, the Regional Economic Communities (RECs) and the Member States in delivering resilient infrastructure networks that interconnect Africa and boosts the economy. These goals support mobility for all by means of affordable, safe and environmentally friendly transport services.

1.3 African Transport Ministers and the Malabo Declaration

At their third Conference in Malabo in 2014, the Ministers identified, in the Malabo Declaration, ways for transport to support Africa to reach aspirations 1, 2 and 7 of Agenda 2063. The Ministers' findings and proposals are their vision for the sector and their recommendations are:

A prosperous Africa based on inclusive growth and sustainable development

- develop new transport business models using new technology that improves efficiency, creates jobs and reduces costs;
- develop rail transport with mass transit systems in cities of two million population and increase freight and passenger traffic carried by rail;
- increase road connectivity to increase agriculture output and tunnel connectivity between island states and the mainland.

An integrated continent, politically united, based on the ideals of Pan-Africanism, and the vision of Africa's Renaissance

- implement PIDA projects connecting cities by road and rail transport;
- develop air and sea transport business models that boost tourism and facilitate the free movement of goods and services envisaged by Agenda 2063.

Africa as a strong, united resilient and influential global player and partner

- create shipping related businesses for handling the foreseen expansion in trade.

The Ministers also believe that achievements under the other four non-transport aspirations of Agenda 2063 would enhance transport performance. The benefits for transport are:

- increased skills level and higher professional standards in law enforcement;
- improved education measures that develop human resources for transport;
- strengthened security and safety agencies that reduce highway crime and accidents;
- higher ethical standards and a respect of rules that eliminate corrupt practices;
- extensive training and access to finance that facilitate innovation and business opportunities, including for women, in transport services.

The Ministers' valuable contributions on policy and strategy measures in the Malabo Declaration are addressed in this policy paper. Many of these measures are also reflected in the programmes of the RECs and Member States. Thus, key African stakeholders at all levels share a vision on coherent goals for transport in realising Africa's Agenda 2063.

1.4 Scope of the policy paper

This policy paper builds on the lesson learned by the Africa Union, the RECs and the Member States over the last two decades. These lessons stem from implementing a corridor approach within and between regions, and a sectoral approach at country level. These two approaches encompass all transport modes – road, rail, air, urban, port, and maritime and inland waterways – as well as transport services for the movement of people and goods.

Working in partnerships with our development partners - the EU and its Member States, OECD countries, China and multilateral development banks, such as, the African Development Bank (AfDB) and the World Bank - has complemented the Commission's experience and enhanced the lessons learned. Of the Commission's development partners, the EU is a major donor and has a privileged relationship through the Joint Africa-Europe Strategy and its Partnership on Infrastructure. Hence, the policy paper is coherent with our EU partner Communications:

- EC White Paper: Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system (2011),
- AUC-EC College to College Statement, Joint Communiqué, Addis Ababa (2016),
- Joint Statement of the AUC-EC Reference Group on Infrastructure, Brussels (2016).

The strategy for implementing this Policy Paper will involve key stakeholders throughout Africa. Thus, the way forward strengthens coherence and complementarity between the Commission, the RECs, the Member States and development partners.

2. Key transport policy makers

The three key players in transport policy making are the African Union, the RECs and the Member States. The Commission's Department of Infrastructure and Energy (DIE) assumes Pan-African responsibility for promoting, coordinating and monitoring transport policies. The RECs pursue the implementation of continental transport policies at a regional level, and the harmonisation of regional transport regulations and regional investments. The 54 Member States ensure coherent implementation of continental and regional policies, and programmes in their national transport policy, programmes and action plans.

2.1 African Union Commission promotes continental policies

In advancing Pan-African transport policies, DIE coordinates at international level with the UN Economic Commission for Africa (UNECA), and African and international specialised agencies, including, the African Civil Aviation Commission (AFCAC), the International Civil Aviation Organization (ICAO) and the International Maritime Organisation (IMO). At continental level, the Commission is a member of the Steering Committee of Africa's flagship infrastructure programme, PIDA. This programme is the joint initiative of the Commission, the New Partnership for Africa's Development and Planning and Coordination Agency (NPCA), and the African Development Bank (AfDB) is the executing agency. In overseeing the evolving PIDA,

the RECs and Member States support DIE through meetings of the Specialised Technical Committee (STC) on Infrastructure, convened by the Commission.

In monitoring and evaluating policy performance, DIE is backed by the AfDB's Africa Knowledge Infrastructure Program (AKIP), which collects and analyses data for databases set up by the Africa Infrastructure Country Diagnostic (AICD) study. Thus, AKIP assesses the progress of Member States and publishes bulletins of the Africa Infrastructure Development Index (AIDI). This data stream supports DIE in evaluating transport policy performance and its development.

The Commission mobilises finance and capacity building support through bilateral dialogues with partners and participation in international forums, such as the Infrastructure Consortium for Africa (ICA). These dialogues have won support and raised about US\$23 million, enabling the DIE to pursue the following initiatives:

- start-up activities of NEPAD Short Term Infrastructure Action Plan, which for transport included support to the Executing Agency of the Yamoussoukro Decision, major river crossing, regional corridor and regional railway studies;
- capacity building support to all transport sectors in DIE, and the preparation of transport sector guidelines;
- capacity building support to Agence pour la sécurité de la navigation aérienne en Afrique et à Madagascar (ASECNA) on aviation safety and security and training on satellite navigation systems of the European Geostationary Navigation Overlay Service (EGNOS).

2.2 RECs facilitate regional transport integration policies

Eight Regional Economic Communities form the building blocks of the African Union:

- Arab Maghreb Union (AMU)
- Community of Sahel-Saharan States (CENSAD)
- Economic Community of West African States (ECOWAS)
- Economic Community of Central African States (ECCAS)
- East African Community (EAC)
- Intergovernmental Authority on Development (IGAD)
- Common Market for Eastern and Southern Africa (COMESA)
- Southern Africa Development Community (SADC).

The RECs are responsible for integrating continental policies in their regional programmes, principally through their lead role in implementing PIDA projects. They also prioritise, coordinate and monitor regional infrastructure planning with their Member States centred on continental and regional corridors. Equally important is the RECs' role in overcoming difficulties in harmonising transport standards and regulations.

Moreover, inter-REC coordination is necessary because overlapping REC boundaries means Member States often belong to two or more regional groups. An example of such coordination is the Tripartite REC initiative that brings together COMESA, EAC, IGAD and SADC. Thus, agreement between the RECs and Member States on implementing regional transport strategies and regulatory frameworks is essential because these agreements influence a significant proportion of Africa's transport expenditure.

2.3 Member States transform regional transport systems

Member States face a multitude of tasks in implementing regional and national policies, and building, operating and maintaining regional and national transport infrastructure that crosses their territories. Their tasks also include continually updating national standards and regulations to reflect regional and international norms and agreements on transit transport. In carrying out these tasks, the Member States are supported by stakeholders including civil society, the private sector and development partners.

Transport expenditure at country level far outweighs that at regional level. But, transport expenditure is not uniform across countries, nor is there a balance between investment and operation and maintenance. Level of expenditure also depends on whether a country is medium-income, low-income fragile, low-income non-fragile, or resource-rich. Thus, the Member States continually strive for coherence between national and regional transport policies and strategies, and a balance between spending on regional and national priorities.

2.4 Lessons learned

In the last two decades, new approaches have been adopted to improve transport performance, including a corridor approach to regional transport and a sector-wide approach to national transport. These approaches evolve with feedback from African participation in the African Transport Policy Program (SSATP), the Tripartite REC initiative and through cooperation with specialised transport agencies, such as AFCAC. Furthermore, knowledge gained from working with RECs and Member States on regional and national transport programmes provides profound insight into the complex issues faced by the sector. The major problems and lessons learned are briefly:

Policy reform must be an ongoing process

Many countries adopted the concept of road commercialisation in the 1990s, which led to the creation of second-generation road funds and road agencies. However, today, some road agencies are operating like the bureaucracies they aspired to replace. Road fund levies are not keeping pace with network needs, leading to an increasing backlog of maintenance and poorer road conditions. Despite these shortcomings, road conditions are slowly improving in almost all countries in Africa.

In ports, the “landlord” model of managing port services has improved the performance of container terminals run by the private sector but port sector governance has showed little progress. Similarly, railway concessions managed by the private sector have not fully transformed railway corporations, transport costs have remained high, and private investors have done little in recapitalisation. **Yet, concession successes and failures provide constructive guidance to the public and private sector that will help to revitalise the African rail network.**

Almost all countries are implementing the Yamoussoukro Decision but variable progress is hindering full liberalisation of air transport and holding back improvements to aviation services, safety and security. Similarly, only 17 Member States have joined the initiative to create a single African air transport market that will improve market access and competition bringing benefits to airlines and travellers alike. Hence, policy reform cannot be a stop-start process. If transport is to be sustainable, policy and performance must be continually monitored and updated.

Capacity in Ministries, RECS and private sector needs boosting to strengthen integration

Line ministries have lost skills and capacity to formulate, implement and monitor policy performance in a commercial approach to managing transport. For example, many ministry staff have relocated to new road agencies leaving behind hollowed-out ministries. Similarly, railway concessioning to private operators has left ministries with the staff of the former public railway corporation to regulate concessions. But with only the experience of state-owned railways, staff do not have the necessary skills to oversee concessioning. Such gaps are being addressed in institutional reform undertaken by many Member States.

Developing professional and technical skills and expertise in the private sector is not sufficient to complement these gaps in the public sector. These shortages stem from too few universities and colleges in Africa offering appropriate training to build the cadre of transport professionals and technicians. Shortage of skilled personnel limits the ways and the pace the transport sector responds to meeting development needs. Hence, a continental dialogue between transport and education policymakers is necessary to bridge this training gap.

Insufficient staff and travel time required to support member countries strain the capacity of the RECs to carry out their responsibilities and tasks for trade and transport facilitation. Their tasks are further complicated by the wide range of economic conditions in their member countries, and by many countries belonging to two or more RECs. These shortcomings mean the implementation of regional regulatory frameworks is patchy at country level, and management of regional corridors varies. Nevertheless, where corridors have established monitoring observatories and corridor management institutions (CMIs), the well-known problems of border post delays, multiplicity of transit documents, and corrupt practices are better addressed.

Accelerate multimodal transport usage for trade and regional integration

Inter- and intra-African trade suffers from inconsistencies in and varied application of transit transport regulatory frameworks, which add to already high consumer prices and diminish export margins and incentives to trade. Higher prices are largely due to Africa's inefficient freight forwarding systems that use many carriers along intermodal routes, thus creating a multitude of transit documents. These fragmented systems and weak transit regulatory frameworks hinder multimodal transport, which uses a single carrier and a single multimodal transit document for door-to-door delivery. Efficient multimodal transport would enable Africa to participate in the growing worldwide transport market, benefiting all Member States, and particularly the landlocked states.

Incomplete infrastructure networks hamper inter-and intra-regional trade

Expanding regional trade relies upon good regional connectivity throughout the continent. Currently, there is not a well-maintained network in good condition to provide efficient connectivity between capitals and cities with over a one million people, and deep-sea ports and international borders. Only about 70 % of the Trans African Highway network has been constructed, and about one-quarter of that needs upgrading and about three-quarters needs rehabilitation. Railway connectivity is low, comprising the traditional import-export corridors and a few intra-regional routes. Port connectivity to international shipping is restricted because container berths are not keeping pace with vessel development. Connectivity with global aviation is similarly constrained by runways too short for large aircraft in some countries, but more generally by ground handling monopolies and high navigational charges. Inadequate regional connectivity hinders trade and can reduce economic growth by as much as 2 % a year. For this reason, PIDA is focusing on upgrading regional infrastructure networks and building the missing links.

Costly transport services hinder trade competitiveness

With roads carrying at least 80 % of goods traded and 90 % of passengers, reducing road transport prices will vastly improve Africa's competitiveness. However, road transport prices in Africa are 40 to 100 % higher than in South-East Asia. Landlocked countries suffer the most where transport accounts for 50 to 75 % of the retail price of goods in Malawi, Rwanda and Uganda. Such high prices are attributable to long delays in clearing ports and crossing national borders, and the multitude of transit documents hides corrupt procedures. For instance, it costs as much to move a container from Mombasa to Kampala as from Mombasa to Shanghai. Yet, these delays have been more than halved at one-stop border crossings, such as at Malaba on the Northern Corridor in East Africa, and at BeitBridge and Chirundu on the North-South Corridor in Southern Africa. Reducing such delays on the North-South corridor is yielding savings of US\$60 million a year.

Africa does not score highly on the Logistics Performance Index (LPI). While in 2009 the United States had a LPI of 3.84, LPIs ranged from 2.19 in West Africa to 2.73 in Southern Africa. These figures indicate the quality of transport services in Africa is markedly lower than in developed countries. They also reflect the monopoly of transport cartels and a sector heavily regulated by governments that stifles trade. Yet where liberalisation and competition are pursued, for instance in South Africa, transport prices quickly reduce.

Poor connectivity with near and distant continents limits African as a global trader

African countries and island states are reliant on their seaports and maritime services for moving more than 90 % of their trade. However, shipping rates are high. Shipping a container to Sub-Saharan Africa costs about three times more than shipping to East Asia and the Pacific. This can largely be attributed to poor port performance, turn-around time and dwell time, which all lag behind those in more developed regions. Hence, inefficiencies in these external links with near and distant continents reduce opportunities for international shippers and shipping companies to do business with Africa.

Africa's export of perishable products and tourism depend almost entirely on international airlines. Yet, Africa's share of the world air traffic is barely 3 % and non-African airlines account for 80 % of the intra-continental market. African airlines are failing to increase their market share largely because of inadequate implementation of the Yamoussoukro Decision, and high operating costs. However, several Member States are taking steps to establish a single African air transport market to break into the expanding global aviation market.

Transport can liberate isolated rural communities

Only half of Africa's rural population is served by all-season roads while infrequent transport services hinder agricultural production. In some places, transport and transaction costs eat up as much as 80 % of the market price, and are a disincentive to farmers to grow more food. Transport constraints are also cutting off rural communities from education and health services and excluding them from economic growth and sustainable development. Meeting the Africa-wide target of access to an all-season road within two kilometres, and associated transport services will liberate rural communities. Where a transport sector-wide approach linked to rural development has been adopted, such as in Ethiopia, rural communities are benefiting from greater access to roads and market opportunities.

Traffic congestion restricts mobility and access in rapidly expanding cities

Traffic congestion is getting worse and rush hours are getting longer in all of Africa's sprawling capitals and cities. This situation is not likely to improve in the short term as Africa's urban population is set to grow from about 414 million in 2011 to 750 million in 2030, and to reach over 1.2 billion by 2050.

Traffic volumes are increasing particularly in the megacities of Egypt and Nigeria, and in secondary cities where populations are rising to one million. Minibuses and motorcycles are replacing faltering public bus services. Where they exist, bus rapid transit systems and urban rail networks, are not significantly reducing road traffic. Consequently, non-motorised transport (NMT) accounts for 50 to 90 % of daily trips but as users share infrastructure choked by motorised traffic their journeys are becoming longer and more hazardous.

Urban dwellers face longer journeys in distance and time. The price of public transport is rising largely because of urban sprawl, which can be attributed to inadequate policies on land use and economic development. Furthermore, escalating car ownership is increasing urban traffic congestion, and in turn driving up greenhouse gas (GHG) emissions and creating health problems. All of these issues make it more difficult for people to get to work, to reach schools and hospitals, and to do business.

Transport fatalities and personal injuries have to be reduced

The most serious issues for African airlines are safety and security. Although aviation safety has improved since the application of IATA operational safety audits in 2012, African airlines suffer a disproportionate number of fatal accidents considering they carry less than 5 % of world's air traffic. Safety is also a major concern on African railways. Even though low in number due to low traffic volumes, train accidents are unacceptably high. Most African railways report over 100 derailments a year and some as many as 200 compared to less than 100 mainline derailments reported by India's railways. Except where loss of life is high, reporting of maritime accidents is erratic and the extent of environmental damage remains largely unknown. Many of these incidents arise from inadequate enforcement of navigation safety and international maritime agreements. Under the Maritime Charter, the Commission is taking a more active role in maritime safety and security, including combating piracy.

Even though many Member States are taking measures to combat road accidents, rates remain high. Road fatalities are the third-leading cause of death in Africa after malaria and HIV/AIDS, and present a major public health problem in terms of morbidity, disability and associated health care costs. Africa has 16 % of the world's road fatalities with only 12 % of the population and only 2 % of the world's vehicles. Road travellers face serious safety hazards as a result of inadequate enforcement of driving standards, vehicle licensing and maintenance regulations, vehicle overloading and reckless driver behaviour. Overall costs of road accidents are 3 to 5 % of low-income and middle-income GDP or more than the total development aid received by these countries.

Transport has to take on board the challenges of climate change

The increase in extreme weather events is escalating the risks and extent of flooding and landslides that damage and destroy transport infrastructure. Such events are changing rainfall patterns that increase rehabilitation and maintenance costs, and often disrupt transport operations. These changes alter sedimentation patterns affecting inland water transport and port operations. Furthermore, cities and urban communities in low-lying coastal areas and small island states face threats associated with sea level rises. Hence, the impacts of climate change endanger transport operations and put added strain on the budgets of Member States.

Poor fuel-quality standards and poorly maintained vehicles lead to high vehicle emissions and contribute to premature deaths, estimated by the World Health Organization (WHO) at seven million in 2012. Emissions of black carbon and other short-lived climate pollutants are also major contributors to increased greenhouse gases emissions, driving up global temperatures. Similarly, aviation emissions are estimated to be responsible for fuelling climate change. With aviation growth simply outpacing efficiency gains, COP22 has projected emissions will increase threefold by 2050, **if not checked**. Thus, transport, particularly in urban areas poses a health hazard to the vulnerable, the young and the old in society. The Commission is addressing these issues under its strategy on climate change.

Find the means to finance the gap between transport needs and expenditure

Based on a representative sample of African countries, the AICD study estimates the financing gap to be approximately US\$2 billion a year. This gap represents the difference between the cost to remedy Africa's transport infrastructure to achieve affordable connectivity at regional and national level, and the annual spending on existing infrastructure. This financing gap might appear small but finding additional resources is a major problem for many Member States. Reducing this gap could come from efficiency gains mainly in the roads sector. Inefficiencies arise from underspending of capital budgets, low recovery of road user costs and poor collection of levies. However, realising these efficiencies is a complex process and the outcomes are far from certain.

Furthermore, achieving efficiency gains assumes completing and sustaining sectoral reforms, financing levels of development partners remain at recent levels and construction costs do not escalate significantly. Fulfilment of the reform agenda may vary from country to country, external financing is uncertain, and future construction costs are difficult to predict. Moreover, the above analysis does not apply uniformly to all countries. Low-income fragile countries face a larger funding gap, even taking account of the above efficiency savings. Hence, these countries could face extra challenges on standards, lower cost solutions and delayed delivery of targets.

Use IT as an enabler for continental transport development

Internet coverage is widespread in cities and urban areas in Africa and is reaching even the most remote rural communities. More people have access to Internet services as the cost of computers, mobile telephone and service provider charges reduce, and software applications become more user friendly. Although computer-based systems are widely used in management and operations of air and maritime transport, rail and road transport has been slower to develop fully interconnected systems along regional corridors and in urban areas. The Commission is promoting IT systems under its SMART corridor initiative.

Improve studies to take projects from inception to financial closure

Continental and regional infrastructure programmes, such as PIDA, have considerable political commitment, and financial and technical support for project preparation. Yet, many projects remain without funding and too few projects are under implementation. These shortcomings arise from less than rigorous pre-feasibility or scoping studies that insufficiently assess risks. This means in subsequent feasibility studies the economic analyses are inadequate for correctly prioritising projects, and projects do not necessarily satisfy the criteria of the many available financing opportunities. NEPAD is addressing these issues.

3. Transport's contribution to Agenda 2063

The aspirations for Africa in 2063 are an integrated and peaceful continent with prosperity based on inclusive economic growth and sustainable development, and Africa as a global player and partner. To achieve these aspirations, transport infrastructure and services will need to connect regions and countries, support trade and commerce, and facilitate access to social amenities. Travel for all people will need to be safe, resilient and with minimum impact on the environment.

3.1 Transport integrating Africa, its regions and countries

Transport policy makers have long recognised that Africa's continental infrastructure is hindering the vision of African integration. Today, transport stakeholders have an agreed programme on how transport can and will facilitate Africa's integration.

Turning Africa's transport infrastructure legacy into world-class networks

Transport systems in Africa were founded by European colonial powers exploiting the continent's rich mineral resources and high value agricultural products, such as rubber, coffee, cocoa and cotton. Exploitation was driven by commercial gain that needed efficient transport corridors to coastal ports for onward shipment to Europe. Thus, transport investments favoured roads, ports and railway networks along strategic corridors with little attention to developing networks for regional and in-country connectivity. As a result, fragmented and distorted transport systems have emerged throughout Africa that are administered and operated by different political and institutional regimes. This was the transport legacy inherited by African countries at the time of their independence. This legacy has hindered the political path of the Pan-African aspiration to a fully integrated Africa.

By 2063, Africa **aspires to** have high-speed railways, roads, maritime and air infrastructure connecting capitals and major cities, and improved links between African island states and the mainland continent. In addition, liberalised air and efficient maritime transport will ensure links between Africa and Europe, India, Asia, Australia and the Americas.

A programme for continental transport networks

The Commission, RECs and Member States have agreed strategies, programmes and projects to scale up transport infrastructure in their continental programme, PIDA. The PIDA vision of integrating Africa builds on synergies between transport modes within a regional transport network of hubs and corridors. This vision is supported by harmonised national policies and strategies that reflect the continental vision in their plans, institutional and regulatory frameworks.

3.2 Transport transforming trade and commerce

Intra-African trade will flourish with the establishment of the Continental Free Trade Area built on current REC trade agreements. To maintain trade competitiveness, transport infrastructure and services will have to enable free movement of commercial and agricultural products by road, rail, inland waterways, sea and air.

Regional transport networks moving goods and services freely across Africa and abroad

Benefiting from macroeconomic stability by 2063, Africa will have manufacturing industries and technology-driven companies contributing approximately 50 % of the continent's GDP.

Industry transformation and Africa's dominance in the exploitation of its natural resources will substantially increase African trade and international exports.

Increased and competitive trade flows will rely on efficient transit transport along road and rail regional corridors and through ports to global trading partners. To support traffic flows, regional road and rail corridors connecting regions and countries, and commercial centres to maritime ports will be maintained and upgraded. And, port operations will be appropriately upgraded and port services improved to facilitate the free flow of goods. Similar strategies and plans are underway in the aviation sector for the trade in high value and perishable goods, and to support tourism.

National transport networks enabling agriculture to feed Africa and to export

African agriculture in 2063 will be transformed by an increase in mechanised farming, greater access to production inputs and improved financing opportunities that will boost production. Higher production will make local food produce sufficiently competitive to replace food imports and will generate surpluses for export. However, getting agricultural products from farm to market with minimum damage requires a network of rural roads in good condition. Similarly, food exports have to move rapidly along national and regional roads for transshipment by ship and aircraft. African governments will improve their capabilities and capacities to sustain road maintenance and upgrading to efficiently serve farmers and traders so agricultural products remain competitive in Africa and abroad.

Lakes and rivers moving maritime produce within Africa and to world markets

The blue economy and ocean governance is expected to gain momentum in 2020, leading to advanced knowledge on marine and aquatic biotechnology to produce new products. Marketing these products will require maintaining and upgrading inland networks of lakes and navigable rivers to connect landlocked countries with the rest of Africa and world markets.

3.3 Transport facilitating access to jobs and social amenities

Africa's population by 2063 will enjoy a high standard of living with approximately 60 % living in cities and peri-urban communities, and rural communities occupying vast sparsely populated areas. Appropriate transport infrastructure and services will give access to health, education and employment, and reliable services will be affordable to different socio-economic groups.

Appropriate transport for growing urban communities

Africa's urban population in 2063 will be educated, enjoy good health and live in well-planned cities and peri-urban communities with modern transport facilities. Such systems will range from well-maintained and well-lit footpaths, to intermediate transport integrated with all forms of private and public transport services. In larger cities, public transport will include bus and train mass transit systems. These services will operate on upgraded infrastructure giving urban dwellers access to affordable means of transport.

Appropriate transport for connecting rural communities

Rural communities will enjoy a similar quality of life to that of their urban counterparts with good transport links to health clinics and hospitals, schools, markets and work places. This

requires well-maintained motorable roads that ensure provision of reliable public and private sector bus services, and intermediate transport.

3.4 Transport ensuring safe secure movement of people and goods

In Africa 2063, many more people and goods will travel by land and sea for business and tourism than is now the case. Safety and security levels of international standard will be adopted by all transport modes.

Road and rail transport operating to modern standards

Travel will be safer for all road and rail users on well-maintained roads and railways equipped with modern and properly maintained vehicles and rolling stock. Truck and train drivers will be better trained and licenced, and governed by modern safety regulations that are strictly enforced. Similarly, security of goods will be enhanced by modern screening techniques and with regional corridors transformed into SMART corridors.

Maritime, inland waterway and air transport operating to international standards

All travellers by air and sea will be safer and more secure with shippers, airlines, ports and airports operating to the international standards of IMO and ICAO. Furthermore, air traffic control will cover all Africa and aids to navigation will operate reliably on all inland waterways. Maritime piracy will be largely eliminated.

3.5 Transport becoming resilient and cleaner air

By 2063, Africa will have transport infrastructure that is more resilient to climate change impacts and less-polluting transport services.

Resilient transport protecting transport users and coastal communities

Making all transport resilient to climate change by 2063 will be an evolving process. It will involve maintaining infrastructure to reduce flooding that threatens transport operations and people living in coastal communities. Enhanced standards will be adopted for new infrastructure in environmentally vulnerable areas and where traffic is concentrated.

Making transport reduce its impact on health

By 2063, transport emissions will be reduced to levels that have a minimum impact on health. This is to be achieved by the introduction of fuel-efficient and low emission vehicles; by appropriate fuel pricing and fiscal measures to address the balance between freight carried by road and rail; and compliance with IMO and ICAO requirements for marine and air transport, respectively.

3.6 Transport helping Africa reduce development finance needs

Africa aims to reduce its dependence on external finance for development by 2063. Transport will partially reduce its financing needs by using budget allocations more efficiently, and by attracting more private investors through Public Private Partnerships.

3.7 Transport contributing to job creation and youth empowerment

By 2063, Africa is envisaged as a continent where all people, particularly women and youth have equal access to political participation, education, health and the labour market.

Transport can play a vital role in job creation and in reducing the current high youth unemployment (15-24 years) rates in Africa. These rates range from 20 % in countries such as Ghana, Zambia and Zimbabwe to over 30% in Namibia, Algeria and South Africa. To achieve this, young people must have access to educational opportunities to become professionals and technicians in transport infrastructure delivery and in transport operations. Moreover, infrastructure construction and maintenance will create job opportunities for men and women that enrich rural and urban communities and lead to social inclusion, thus tackling some of the root causes of migration.

4. A strategy to deliver sustainable transport

A comprehensive strategy is required to ensure that transport facilitates economic growth and social development, enhances continental integration and enables Africa to participate effectively in the global economy. Themes for a strategy for sustainable transport have been identified by the African Ministers for Transport and encompass interconnectivity, transport costs and prices, transport institutions, safety and security, urban mobility and environmentally resilient transport.

4.1 Improving continental and regional connectivity

Closer integration of Africa requires appropriate transport links between and within regions, maintaining and developing transport networks, and strengthening transport links with the rest of the world.

Update PIDA plans to meet Africa's changing needs

PIDA plans need to be constantly updated to ensure that short- and medium-term projects in the PIDA Priority Action Plan (PAP) remain relevant and affordable. Such reviews will assess progress and re-examine the underlying assumptions on project costs, financial planning and other macroeconomic externalities that influence transport priorities and plans. In this way, PIDA updates will be coherent with REC masterplans, consistent with the PIDA strategic framework and meet new priorities as Africa's needs evolve.

Sustain maintenance, accelerate upgrading, and build the missing links

Road networks throughout the continent must be maintained and upgraded to achieve the levels of connectivity needed to integrate Africa, its regions and its countries. This proposition has three implications for the 59,100 km of Trans-African Highway network. The first is to maintain approximately the one third of the network that is currently in good condition. The second is to rehabilitate approximately half of the network that is in poor condition. The third is to upgrade earth and gravel surface sections to paved standards, and to build the missing links estimated at approximately 4,300 km.

The nature and extent of this work calls for strategies and priorities that vary from region to region and country to country. For example, the Cairo-Dakar corridor is substantially complete, but the corridors through Central Africa require upgrading and construction of the missing links. However, achieving paved road standards in some low-income countries will strain overstretched budgets and some form of staged construction will be necessary. Nevertheless, a motorable road in these countries will still contribute to continental and regional connectivity.

A similar strategy is required for national road networks that connect secondary towns and commercial areas to regional networks. All trunk, secondary and tertiary roads that are currently in good condition have to be maintained, and roads in a critical state need to be rehabilitated before they collapse and require reconstruction. Earth roads will need to be upgraded to a gravel surface, and where essential to an appropriate paved surface.

Rail connectivity is being scaled up under the *African Integrated High Speed Train Network, an Agenda 2063 Flagship Project* to link all African capitals and commercial centres. The first step in this visionary project is the high-speed rail line between Tangier and Kenitra in Morocco to be opened in 2018. **This innovative project, an example of public-private financing, includes participation by EU and other international investors.** In parallel, Africa's largely disconnected rail corridors need to be upgraded and linked in a continental network. This will require accelerating rehabilitation of the existing narrow gauge network to carry axle loads to accommodate modern rolling stock and thus to transport increasing goods volumes. Furthermore, interoperability of rail networks, many with different gauges, has to be improved and appropriate transport interchange hubs upgraded or constructed. **All these improvements will contribute to raising the PIDA target transport modal ratio to 30 % rail to 70 % road from the current 10 % rail to 90 % road.**

Port interconnectivity will need to be improved in two directions, inwards to coastal and landlocked countries and outwards to Europe, India, Asia, Australia and Americas. Upgrading activities revolve primarily around the continued development of container terminals to cope with the rapidly changing trade and shipping patterns. It also requires coordinating investment in inland road and rail transit transport to handle the escalating container traffic, as well as upgrading ports that are major transshipment hubs. And, in regions without dedicated hub ports, designing a "hub and feeder" port network, at least for certain trade or vessels, could avoid over investment in several parallel corridors.

Lakeside quays and associated onshore infrastructure also require rehabilitation, in many cases in conjunction with the rail component. Improving the efficiency of transport on navigable rivers, such as the Congo, requires significant rehabilitation of river port infrastructure, dredging to maintain access, and installation of modern aids to navigation. These improvements would increase intra-regional connectivity and in the case of the Congo River increase the connectivity of nine Central African countries.

Continental and regional air connectivity will require modernising **airport and air navigation infrastructure, reducing airline operating costs**, and raising the present national commitment of 17 countries to the Single African Air Transport Market (SAATM). These initiatives are required to reverse the decline in international scheduled services, **to improve inter-African air connectivity** and are essential for increasing air traffic.

Reinforce links with near and distant continents

The missing links in air navigation and aviation services would be overcome with full implementation of the Yamoussoukro Decision and modernising air navigation systems by extending the European Geostationary Navigation Overlay Service (EGNOS) to Africa. These initiatives, as well as reinforcing links beyond Africa, will also strengthen the role of AFCAC and other regional civil aviation agencies.

Constructing deep-water berths and dredging existing berths to accommodate the new generation of large vessels will strengthen links with shippers in Europe, India, Asia, Australia

and the Americas. In particular, there is a need to enhance maritime cooperation in the Mediterranean with the countries of North Africa **by linking PIDA's Mediterranean networks to the Trans-European Networks – the Motorways of the Sea.**

4.2 Reducing transport costs and freight prices

Affordable transport depends on freedom of movement within regions and between regions, and between the African continent and island states. Free movement requires efficient systems to facilitate the passage of goods through maritime ports and effective intermodal regional corridors and agreements that liberate the skies of Africa.

Implement harmonised transit transport regulations and move to paperless systems

Transport costs and prices could be substantially reduced with the adoption of a comprehensive framework for transit transport regulations, **including axle load control** along regional corridors. This implies ensuring national transport policies fully incorporate regional agreements. However, national policies require regular monitoring and updating, particularly if a Member State is a member of two or more RECs, to ensure harmonised implementation of multi-REC transit agreements. Furthermore, safeguards are required to prevent duplicate use of regional common transit documents and national documents by a Member State keen to retain its national documentation, **a practice known as “document domestication.”** Moreover, the overlapping geographical nature of RECs demands greater coordination to ensure effective implementation of transit procedures, such as those being developed by the Tripartite Agreement between COMESA, SADC and EAC.

Paperless transit documentation is the vision of the SMART corridor that deploys intelligent transport systems in ports and along road and rail corridors, **and builds on good practices of e-cargo systems in the aviation industry.** A computer-based system provides real-time information to all transport stakeholders and could reduce the corrupt practices inherent in the existing paper-based system. In addition, computerised documentation would reduce dwell and customs clearance time in ports, and travel time along road and rail corridors. As well as benefiting hauliers and customers, these systems reduce corridor inefficiencies and would thus contribute to increasing government revenues.

Introduce multimodal transport systems centred on national gateway ports

Multimodal transport systems will lead to shorter transit times and greater security of goods. Such systems require transport operators to act not as agents but as principals in the door-to-door transport of goods by sea, rail and road. Multimodal transport will require legal frameworks coherent with international agreements in the Member States, within RECs, and between RECs. While requiring close coordination, multimodal transport will give operators better access to world markets and enable them to participate fully in international trade.

Multimodal systems will contribute to streamlining the complex maritime and inland port logistics chain for container and general cargo handling, customs and health clearance and inspection, and freight forwarding operations with road hauliers and railway agencies. The working practices of the many stakeholders could be greatly facilitated with the implementation of the computerised customs management system developed by the United Nations Conference on Trade and Development (UNCTAD) known as ASYCUDA. This system handles manifests and customs declarations, accounting procedures, and transit and suspense procedures. Combining ASYCUDA with the efficiencies of a multimodal system will increase port performance, benefiting all stakeholders and attracting more traffic and trade.

Build one-stop border posts at all national borders

One-stop borders post (OSBP) have been shown to be beneficial to all transport users and beneficiaries in terms of predictable transit times, logistics efficiency, reduced costs and prices, and increased trade competitiveness. The implication is that border management agencies and systems have to be considered in transport infrastructure planning and construction. Member States will need to integrate the operations of their national border management agencies at the border (customs, immigration and clearing agents), and countries will need to agree the legal framework under which border management agencies operate jointly. Furthermore, agencies must adopt the same daily working hours and set up systems for handling the pre-arrival lodgement of documentation.

Deregulate and liberalise the road haulage industry

Transport prices can be substantially reduced by breaking up cartels and deregulating the trucking industry. This implies dismantling monopolistic behaviour where freight agencies, shippers and trade unions tightly regulate trucking operations. Moreover, government-imposed procedures that add to freight charges will have to be removed, such as bilateral agreements that set quotas to be carried by party countries and where cabotage is banned. Hauliers will need to modernise their truck fleets to effectively handle containers and to meet updated axle load controls. Nevertheless, deregulation must ensure that Member States retain responsibility for vehicle, licensing and safety standards. Hence, deregulation and liberalisation will increase access to haulage markets and stimulate competition to the benefit of consumers.

Achieve Open Skies across Africa

Airfares can be reduced and airline revenues increased with commitment to and full implementation of two key initiatives – the Yamoussoukro Decision (YD) and the Single African Air Transport Market (SAATM) – **and the removal of non-physical barriers, such as visa requirements for intra-Africa trips**. These initiatives, which form the basis of Africa's Open Skies, call for closer coordination at regional and continental levels. As well as reducing airfares and increasing airline revenues, these initiatives strengthen inter- and intra-regional connectivity that facilitates African trade carried by air.

4.3 Strengthening transport institutions

By cooperating with private sector operators, public institutions can optimise management, operations and maintenance of infrastructure and services. Thus, strengthening the governance capacity of public institutions will lead to more effective and efficient transport at continental, regional and national levels. The major actions necessary are:

Equip key transport policy makers with the right skills and resources

Essential to accelerating transport integration is sufficient and competent human resources in the Commission, RECs and Member States. The Commission requires capabilities to initiate and coordinate policy development, and monitor and evaluate policy implementation by the RECs. Similarly, the RECs, as the executing agencies for regional agreements, need capacity to coordinate and monitor the Member States in integrating regional policies in their national transport policies and to ensure harmonised transport planning. Consequently, the Member States need a full range of professional skills to set regional priorities in national policy and to enforce the associated regional regulatory frameworks. The extent of institutional capacity building and the sufficiency of their budgets will determine the pace of continental and regional connectivity.

Capacity building requires recruiting and retaining skilled staff to coordinate and monitor the commercial management approach taken in the transport modes. For the roads sector, this requires developing capability to monitor the performance of road fund and road agencies. While for railways and ports, skills and experience in monitoring rail and container port concessions need to be strengthened. For the aviation sector, skills will need to be reinforced in negotiating aviation agreements and in liaising with international organisations.

Rationalise corridor management institutions

There is a need to develop and adopt good practices in corridor management to increase effectiveness, operational efficiency and comparability across regions. Currently, almost all transport corridors have different management models. For instance, the Northern Corridor in East Africa has a Permanent Secretariat of public–private stakeholders financed by a levy on cargo through the Port of Mombasa. Elsewhere, in West and Central Africa, transport corridors are coordinated by the RECs. In Southern Africa, operators and users established the Maputo Corridor Logistics Initiative. Currently, financing models, institutional structures and monitoring indicators differ, and thus hinder comparability of corridor performance.

Strengthen operational efficiency of Road Funds and Road Agencies

Under-funding of road maintenance is a common issue in Africa. Institutional road funds set up for the maintenance of national and regional networks will need to be reconsidered. Revenues from fuel levies need channelling directly to the fund rather than through national treasuries. Similarly, fuel levies need to be set annually by the road fund board to enable commercial management of road assets. Road agencies, many of which are semi-autonomous, need to become autonomous bodies and to adopt clear targets, functions and programmes. For instance, a road fund free of government annual budget cycles would enable performance-based contracting of maintenance. Nevertheless, road funds and road agencies have improved road conditions, and revisiting their functions and operations will preserve such improvements and lead to better road network conditions across Africa.

The extent of the rural road network and its role in connecting communities to social amenities make a network-wide strategy vital for increasing and maintaining national connectivity. Thus, rural road networks must be rigorously and continually reviewed to reinforce strategies that underpin financing and staffing requirements. However, reviews may be complex where local governments have the responsibility for rural roads but rely on central government for finance and professional support.

Improve the effectiveness of railway concessions

Railway concessioning has increased goods volumes transported, and reduced the financial burden on governments but has provided little return to private investors. While government and private investors see opportunities for attracting more business, action is required to enable this to happen. The skewed balance of risk generally in favour of the government needs to be renegotiated. Infrastructure rehabilitation needs to be accelerated and regional strategies harmonised. The balance between road and rail transport policies must also be redressed. For instance, road user charges generally only cover maintenance but rail fares have to cover both maintenance and operations costs. By putting rail and road transport on a more balanced footing, rail concessions could improve benefits to rail users, concessionaires and governments.

Increase port concessions and extend good working practices

Adopting the port “landlord” model and concessioning port operations, mainly container terminals, produces similar benefits to government as those from railway concessioning. An additional benefit comes where governments have met their infrastructure commitments, and private investors have made significant investments in infrastructure, which might otherwise not been carried out. Similarly, most port concessionaires are operating profitably and in many cases, paying a concession fee to the government. Another example of good practice is the adoption of the single window concept in Benin, where all information between freight forwarders, shipping lines and port operators is managed in a single process.

Extending the principles of good practice in container terminal concessioning will bring improvement for all port users. Good practices involve port authorities working closely with private operators, freight forwarding agencies, and customs authorities to implement strategies to reduce cargo dwell time and container handling charges, and to improve ship waiting and turnaround times. These improvements will contribute to attracting traffic from national, regional and global trade.

Upgrade air traffic control, airport infrastructure and reform regulatory bodies

Upgrading air traffic control is vital in developing air transport and in supporting African airlines to compete internationally. In this respect, Governments will need to allow civil aviation authorities (CAAs) to retain fees collected from airlines to spend on modern satellite-based technology that would prove more cost effective. Increasing revenue from fees and reducing operating costs would enable CAAs to recruit and retain highly skilled staff for operating modern airports in a rapidly changing technological sector. Similarly, airport investment needs to focus on upgrading congested terminals, and out-dated airside and landside facilities, which could attract private investors. All of these measures would promote air travel and facilitate the competitiveness of African airlines.

Restructuring aviation regulatory bodies that have historically protected national flag carriers is a major step towards air liberalisation foreseen under the Yamoussoukro Decision. Accelerating the pace of liberalisation requires additional technical and financial resources for AFCAC, the oversight body, for facilitating air connectivity essential in attracting more traffic.

4.4 Fostering safe and secure transport

Travelling in a safe and secure environment is an essential aspect of sustainable transport. Providing this environment demands a drastic reduction in road accidents and train derailments, and ensuring that air and maritime transport comply with international standards.

Cut the carnage on the roads

Many Member States have embarked on road safety plans, yet road accident rates are still too high. All stakeholders are familiar with actions to reduce road fatalities and injuries. Actions are well documented by the Global Road Safety Partnership, adopted by AUC in its Road Safety Charter in response to SDG target 3.6. Thus, governments must provide their lead safety agency with resources to effectively coordinate the many road safety agencies. This requires updating legal frameworks covering vehicle safety standards and improving enforcement of safety regulations. The lead agency needs to mobilise sufficient funds to support sustainable safety initiatives. The level of funding recommended by the *African Road Safety Plan* is 10 % of road investments and 5 % of maintenance funding.

Improved security and safe vehicle loading practices along regional road corridors are two of the many benefits of SMART corridors. These corridors will include security measures, such as enhanced screening of containers and increased security at rest points and border crossings where road haulage personnel and cargo are more vulnerable to criminal activities.

Reduce derailments and improve safety regulation

The high incidence of derailments can be reduced with a regulatory framework for technical performance, safety objectives and standards and safety management systems for licensing of railway operators. A comprehensive regulatory framework will need to be based on an analysis conducted by an independent accident investigation agency of the causes of accidents and recommendations for improving accident prevention. Appropriate standards and effective safety agencies will reduce accidents and injuries to users as well as damage to goods and rolling stock.

Furthermore, common interoperability safety standards will increase security within and between railways systems. This will require common safety targets and indicators across the continent and common safety methods to ensure compliance with safety requirements. Common standards will improve rail safety and security at relatively low cost and are essential in densely populated urban areas.

Aviation safety and security needs to conform to ICAO standards and practices

The high accident rate of African airlines can be reduced by consistent implementation of ICAO standards and recommended practices, efficient regulatory oversight, and improved safety management systems. Safety and oversight capabilities will be enhanced through independent CCAs extending cooperation with ICAO and development partners on operational safety and continuing airworthiness programmes (COSCAPs) to more Member States, and by adopting the EGNOS aircraft approach system. Boosting capabilities in all areas to achieve ICAO compliance will make air travel safer.

Aviation security can be improved by rigorously implementing ICAO Annex 17 that seeks to prevent unlawful acts, ranging from attacks on aircraft and passengers to placing explosive devices into cargo and baggage. The Commission and Member States will need to initiate coordinated plans to mitigate these risks according to their commitments in Windhoek in 2016. Such plans involve working with ICAO under the Aviation Security and Facilitation Plan in Africa and the EU Civil Aviation Security project. These initiatives will build a culture of effective aviation security that facilitates recruitment of competent staff responsible for safety, the use of machine-readable passports, and compliance with ICAO Annex 9. Improving security also requires civil aviation authorities to exercise their influence over customs and immigration authorities and to coordinate with law enforcement agencies to ensure security is the overriding priority. All these initiatives and plans will create a safer environment for passengers, which is vital in Africa's increasing tourism industry

Maritime and inland waterways operations need to conform to international norms

Adherence to the standards of the International Maritime Organization (IMO) and the International Labour Organization (ILO) will increase safety and mitigate security risks at sea, on inland waterways and in ports. This implies the Commission and Member States take action to ensure shippers uphold the standards of the country in which a vessel is registered and the

crew employed. However, with many vessels carrying “flags of convenience” enforcement by the registered state cannot be counted on. For this reason, the IMO conventions require ship inspections to be carried out in and by Member States, exercising their “port state control” authority. Thus, port authorities must have the staff with competence to enforce international regulations.

Adequate aids to navigation must be fully operational and reliable to protect vessels in coastal waters and inland waterways. Thus, maritime agencies in Member States must have the staff and resources for routine inspection and maintenance to prevent loss of life, damage to vessels and cargo, and environmental damage.

Piracy in the Western Indian Ocean, the Gulf of Aden and the Gulf of Guinea can be better controlled as signatories to the Djibouti Code of Conduct. Implementation of the Code will contribute to protecting Africa’s trade, 90% of which is carried by sea, and to the security of strategic commercial shipping lanes that lie in the African maritime space. Currently, 15 AU Member States are signatories, including three Indian Ocean island states, four states bordering the Red Sea and the Gulf of Aden, and one other Indian Ocean island state.

4.5 Improving urban mobility and accessibility to urban amenities

Adequate land-use management, improved infrastructure for non-motorised and motorised transport, and efficient public and private transport services will enable urban residents to travel smoothly and safely to work, to schools and health facilities, and to other urban amenities.

Strengthen urban land-use management

Mobility in Africa’s overcrowded cities can be achieved through better land-use management to check the sprawl of commercial and residential development that increases demands on transport services. This is the case in Africa’s mega-cities, such as Cairo and Kinshasa, and capital cities, such as Casablanca and Nairobi, as well as in the growing secondary cities with populations approaching one million. Integrating land-use management and transport services can reduce urban congestion and is more successful when responsibility rests with an urban transport authority, as in Lagos.

Upgrade infrastructure for non-motorised and motorised transport

Access to urban amenities for pedestrians and cyclists can be substantially improved by upgrading and developing footpaths to create continuous, safe and well-lit networks. Such networks would also eliminate conflict between non-motorised and motorised transport and contribute to reducing road congestion, and the risk of fatalities and injuries.

Infrastructure capacity for motorised traffic can be boosted by relatively low-cost measures to increase off-road parking, to ensure traffic management systems function and to enforce traffic regulations. In the short-term, these measures will increase road capacity and aid traffic flow. However, substantial upgrading of transport infrastructure that has changed little since independence in many cities is vital for efficient transport services. **But, new infrastructure should aim to reduce traffic congestion.** Moreover, infrastructure upgrading needs to be backed by a robust maintenance regime to prevent further road deterioration causing traffic disruption and increasing vehicle emissions.

Improve public transport

After walking, public transport is the main transport mode for urban residents and can significantly reduce daily commutes. Public bus services need to be integrated with local minibuses and taxi services operated by the private sector. Integration would require enforcement of regulations to reduce overcrowding, and to improve driving standards and vehicle maintenance by public and private operators. Furthermore, removing union controls on routes and loading practices will create incentives for private operators to improve the safety and quality of service.

Public transport in Africa's megacities and major capitals requires the construction of bus rapid transport and rail mass transit systems. Such systems are relatively successful in cities, such as Cairo, Tunis, Lagos, Dar es Salaam, Gauteng, Cape Town and Casablanca. Developing these systems requires wide stakeholder involvement and offers opportunities for public private partnerships. Furthermore, high operational performance would reduce traffic congestion and greenhouse gas emissions.

4.6 Promoting resilient and environmentally friendly transport

Managing the impact of climate change in the design, construction and maintenance of resilient transport infrastructure requires adaptation and mitigation measures. Transport's contribution to limiting climate change is principally the reduction of greenhouse gas emissions.

Make transport infrastructure resilient to climate change

Changes in ambient temperatures and rainfall, and associated flooding linked to climate change necessitate action to make transport infrastructure resilient to these impacts. Higher temperatures make bituminous paved roads deteriorate faster. Increased rainfall reduces the load carrying capacity and the design life of paved and unpaved roads. Flooding of paved and unpaved roads causes overtopping and road washouts. Accelerated road deterioration can be mitigated by improving maintenance to prevent roads becoming impassable and by adopting appropriate standards for construction and maintenance for new roads in vulnerable areas and in rehabilitating heavily trafficked roads.

Railway corporations must develop strategies to mitigate the impact of climate change through maintenance programmes to protect the permanent way from increased water ingress. Drainage systems will need to be upgraded where embankments are susceptible to washouts and cuttings liable to flooding. The additional cost is likely to be balanced by the loss in revenue if rail operations are suspended or disrupted.

Member States will need to liaise with national environmental agencies on programmes to reinforce tidal and seawall defences, particularly near major ports and in urban areas. Island states threatened by rising sea levels urgently need to construct defensive measures. In the face of either reduced or increased river flows, inland waterway agencies need to improve maintenance in shallow areas by additional dredging and by protecting riverside jetties.

Reduce emissions from passenger and freight transport

Transport emissions account for about a quarter of energy-related greenhouse gas emissions. Cutting vehicular emissions will require revision of regulations on vehicle standards, maintenance and inspection, and regulatory frameworks to incorporate incentives, such as the import of fuel-efficient and low emission vehicles. In addition, a move to the user-pay

principle needs to be made by removing fuel subsidies to discourage unnecessary travel and by adapting fuel pricing to reflect different levels of vehicle emissions. Furthermore, fuel efficiency can be increased by lowering and enforcing lower speed limits. Another effective measure would be to re-evaluate and increase road-user charges to encourage the use of railways and inland waterways for medium to long distances. These initiatives could be introduced quickly by Member States and would make an immediate contribution to reducing transport emissions.

Reducing aviation emissions calls for Member States, in partnership with ICAO, to ensure airlines accelerate their efforts and uphold their commitment to at least stabilise aviation emissions at 2020 levels. Similarly, Member States and IMO need to work closely with shipping lines to implement current IMO standards and to develop a strategy on reducing greenhouse gas emissions, and protecting the marine environment. In this context, Member States should join the EU funded capacity building project on climate change mitigation in the maritime shipping industry. This project, which is implemented by IMO, aims to set up a Maritime Technology Cooperation Centre in Africa. Thus, monitoring compliance with these international standards will involve closer liaison between the Commission, the RECs and these international organisations.

4.7 Mobilising additional finance

Finding sufficient funds to bridge the gap between expenditure levels required for Agenda 2063 connectivity levels and forecasts of future spending means mobilising about an additional US\$2 billion each year. Closing this gap requires governments to improve revenue and budget efficiency, and to tap new and innovative financing sources involving the private sector and development partners.

Increase domestic resources

Increasing government treasury spending, the main source of transport funding, is difficult for many countries faced with declining mineral revenues and the negative financial impact of the 2008 global financial crisis. However, governments can boost their resources mainly by improving the collection of road-user charges and by more efficient use of budgeted funds. Member States will need to permit fuel levies to rise to cover routine and periodic road maintenance, and to reduce maintenance backlogs. Road budgets need to be more effectively executed by improving procurement efficiency and cost estimating based on more reliable data. Greater efficiency in these two areas could substantially reduce the financial gap.

Tap new infrastructure financing sources

An increasing array of resources is available across Africa ranging from sub-regional infrastructure funds, multilateral and bilateral development banks (MDBs and BDBs) to sovereign wealth funds (SWFs). The Africa50 Infrastructure Fund, which is owned by 23 African governments, AfDB and institutional investors focuses on regional projects in energy and transport. The Fund aims to speed up project development and to act as a bridge between government shareholders and private investors to better manage risk and project implementation. Similarly, MDBs and BDBs that have high credit ratings can borrow at lower rates on international capital markets and offer lower cost long-term loans for financing transport projects. In addition, Africa has 16 SWFs with total assets of US\$195 billion, with Libya and Algeria dominating with assets of US\$124 billion. The SWFs of Nigeria, Angola, Ghana and Kenya have clear mandates to finance transport infrastructure. Thus, Member States should explore these financing sources to boost their transport investments.

African countries can also tap the Africa Climate Change Fund (ACCF) set up by AfDB in 2014 to support African countries in building resilience to the negative impacts of climate change and transitioning to sustainable low-carbon growth. ACCF complements the Bank's operations with other climate-related multilateral funds, such as the Climate Investment Fund. Currently, ACCF is financing eight projects at a total of US\$3.3 million. One project focuses on building climate resilience in transboundary infrastructure and specifically the Abidjan-Lagos corridor.

Build and finance public private partnerships (PPPs)

Attracting private investors requires Member States to draw up well-structured and bankable projects. Formulating such projects will require tapping the resources offered by a multitude of project preparation facilities, often donor financed, including a dedicated PIDA facility. Working with private investors on regional projects requires close coordination of actors, jurisdictions, and procurement regimes to ensure effective and efficient collaboration from conception to completion. Collaboration also implies adopting good practices, such as in the high profile projects of the Suez Canal expansion in Egypt, the high-speed railways in Morocco and South Africa, and the Namibian port project.

Member States have greater opportunities for raising funds by issuing infrastructure bonds that are potentially attractive to pension funds seeking long-term assets and using similar bonds in PPPs, although the latter are more complex financial instruments. Moreover, PPPs can offer many contractual arrangements that bring private investment into public infrastructure. Such arrangements include design-build-operate-transfer, build-own-operate-transfer, and build-lease-transfer that involve a private entity receiving a concession contract. Creating and sustaining a successful PPP requires close cooperation between governments and private investors that fosters equitable risk sharing in a transparent and well-regulated environment.

Sustain partnerships with development partners

Sustaining development partner funding for transport requires the Commission, RECs and Member States to maintain their well-developed cooperation with traditional donors and strengthen cooperation with new donors, chiefly China and Gulf Arab States. Cooperation forums that have been instrumental in increasing funding for African transport include the Joint Africa – Europe Partnership on Infrastructure, the Infrastructure Consortium for Africa and the Arab Coordination Group. Development partners are increasingly using blended financial instruments. For instance, EU via its Africa Investment Facility pools EU grant resources to leverage loans from European financial and multilateral development banks.

5. The way forward

The African Union, the RECs and the Member States share the responsibility for delivering sustainable transport with safer mobility for all. Sustainable transport will contribute to Africa achieving its aspirations for Agenda 2063, and the transport-related targets of the UN Sustainable Development Goals. However, achieving these common goals demands:

- continued political commitment to better transport governance;

- high priority to safety and security;
- effective responses to climate change;
- effective focus on urban transport;
- adequate financing for affordable transport infrastructure and services.

5.1 Pursue transparent governance

The quantity and quality of infrastructure and services across Africa have been raised in the last two decades largely because of political leadership and commitment to reform and ownership of affordable transport strategies. Political support needs reinforcing to strengthen transport institutions. This demands open dialogue on policy and management with key stakeholders at continental, regional and country level. To facilitate and follow-up on these discussions, the Commission, the RECs, and national ministries and transport agencies need to recruit and retain professional staff equipped to regulate public and private sector transport operations. Furthermore, key institutions need to strengthen their commercial-oriented management ethos with clear strategies, targets and outcome that are shared with stakeholders through published technical and financial audits. These measures will reinforce partnerships with:

- transport users and beneficiaries, who largely pay for transport;
- private sector on infrastructure investment, construction and maintenance;
- development partners.

5.2 Mainstream safety and security, climate change and social awareness

Africa is taking safety seriously and recognises more has to be done in all transport modes, particularly road transport to achieve the SDG 3 target of halving deaths and injuries from road accidents. The reasons for traffic fatalities and accidents are well understood and with adequate priority accident rates can be cut. This requires strong safety regulatory institutions and proper enforcement of safety standards and regulations in all transport modes. Security particularly in air and maritime transport, including inland waterways, depends on operating to the international standards now being introduced in many countries. Implementing these measures will ensure safer mobility for all, including children, the elderly and the disabled.

The Commission is addressing the provision of sustainable and affordable transport infrastructure for economic and social development, which is the core of SDG 9, and a focus of this policy paper. The SDG also requires infrastructure to be resilient. This demands adequate adaptation and mitigation responses to the impacts of climate change, not only to protect infrastructure assets but, most importantly, to protect the livelihoods of communities in low-lying coastal areas and on small island states.

5.3 Upscale efforts for safe affordable urban transport and cleaner air

Increasing urbanisation will mean that more people will be living in overcrowded and traffic-congested cities than in rural communities by 2050. Agenda 2063 and SDG 11 target a substantial reduction in deaths and illnesses from air pollution and safe public transport in urban areas. Providing safe urban mobility that covers walking, cycling and motorised transport, and public transport accessible to all demands strategic planning and city governance that manages major spatial and transport issues. Reducing traffic congestion involves increasing road capacity, improving traffic management, and ensuring roads are adequately maintained. Improvements to urban public transport range from affordable public

bus services to bus rapid transit and rail mass transit systems. And transport can contribute to cleaner air by adopting cleaner fuels, introducing more fuel-efficient vehicles and low-emission vehicles, and enforcing vehicle inspection regulations. Progress in implementing these measures will enhance the urban environment and the well-being of city residents.

5.4 Raise finance for sustainable transport interconnectivity

Africa's PIDA will establish a network of road and railway corridors, and inland waterways connecting regions and countries across the continent and linking landlocked countries to coastal ports. Maritime ports and aviation services will assure links to Africa's island states and to near and distant continents. Key policy makers are committed to financing and sustaining these transport systems using a range of financing instruments. Government budgets will remain the major financial source and for sustainable transport that means giving priority to maintenance and achieving the proper balance between rehabilitation and upgrading. Raising additional funds involves expanding partnerships with private investors similar to those in concessioned container ports and railways, extending financial blending methods with traditional donors and attracting affordable finance from new development partners.

5.5 Priority actions for the Commission, RECs and Member States

Implementing PIDA's continental projects, REC regional plans and Member States transport plans demands sustainable governance, regulatory frameworks that facilitate transport services and adequate finance to construct and maintain transport infrastructure.

At continental level

The Commission has a unique role in promoting continental policy initiatives with the RECs, specialised African transport agencies and the Member States. This would include:

- attracting, training and retaining staff to liaise with international organisations, African transport agencies, and leading the Specialised Technical Committee on Transport;
- reinforcing coordination between NEPAD Planning and Coordinating Agency, the RECs and Member States on PIDA project preparation;
- developing a transport knowledge portal and promoting communities of good practice;
- leading inter-REC coordination on continental and regional planning and priorities;
- promoting establishment of SMART corridors and development of harmonised CMI guidelines, and adoption of multimodal transport systems;
- developing and implementing measures to facilitate two Agenda 2063 Flagship projects: *African Integrated High Speed Train Network* and *Single African Air Transport Market*;
- promoting air and maritime safety and security in partnership with ICAO and IMO;
- participating in transport research programmes, such as Africa Policy Transport Program,
- monitoring and evaluating transport policy objectives and strategy effectiveness;
- liaising with development partners within the Joint Africa Europe Strategy.

At regional level

The RECs and the Commission work with the Member States to implement continental and regional policy through regional programmes, which would involve:

- regularly reviewing PIDA project progress and updating strategies and plans to meet evolving regional changes and new issues;

- attracting, training and retaining staff for assessing corridor performance; analysing coherence between regional and national policy, strategies and regulatory frameworks;
- accelerating harmonisation of regulatory frameworks on transit traffic and safety of REC member countries and between RECs;
- developing and implementing measures to build one-stop border posts at all national borders;
- coordinating with CMIs on establishing SMART corridors and on promoting safety;
- developing and implementing measures to maintain and upgrade sections and to build the missing links of the TAH;
- developing and implementing measures to increase interoperability of railway networks;
- working with CAAs, ASECNA and others to contribute to a satellite system interoperable with European Geostationary Navigational Overlay Service;
- coordinating with IMO and ICAO on maritime and aviation safety and security, particularly piracy.

At country level

The Member States play a vital role by integrating continental and regional aspirations in national transport policies and strategies, which would involve:

- regularly updating policy, strategy and project planning based on sound data collection systems and monitoring transport infrastructure and services performance;
- updating transport regulatory frameworks to facilitate transit traffic through entry/exit ports and along regional road and railway corridors;
- attracting, training and retaining staff in ministries for developing and managing all transport mode providers in the public and private sectors;
- liaising with universities and colleges on transport courses for professionals and technicians wishing to pursue careers in transport in both the public and private sector;
- developing and implementing measures to increase transport budgets, putting maintenance expenditure first, and increasing budget execution performance;
- increasing funding for transport by utilising new financial mechanisms to attract private investors and by setting up public private partnerships;
- providing adequate resources for all transport safety and security agencies in regulatory reform and enforcement, particularly for road transport and including axle load control;
- developing and implementing measures to rationalise urban governance for better management of land-use and urban transport demand, to improve non-motorised transport infrastructure, to integrate public and informal transport services, and to develop mass transit systems in some cities;
- developing and implementing measures to monitor air pollution, to reduce vehicle emissions and to adopt low carbon transport;
- ensuring that road funds generate sufficient revenue for maintenance, and road agencies revive their commercial approach to managing national road networks for all-season access;
- encouraging labour-based methods of road maintenance, where appropriate, creating employment for men and women;
- developing and implementing measures to remove monopolistic behaviour and cartels in the trucking industry;
- cooperating with the private sector to establish multimodal transport operations;
- supporting viable railways concessions, re-assessing and modifying public-private risk sharing and the impact of low road user charging on privately led concessions;

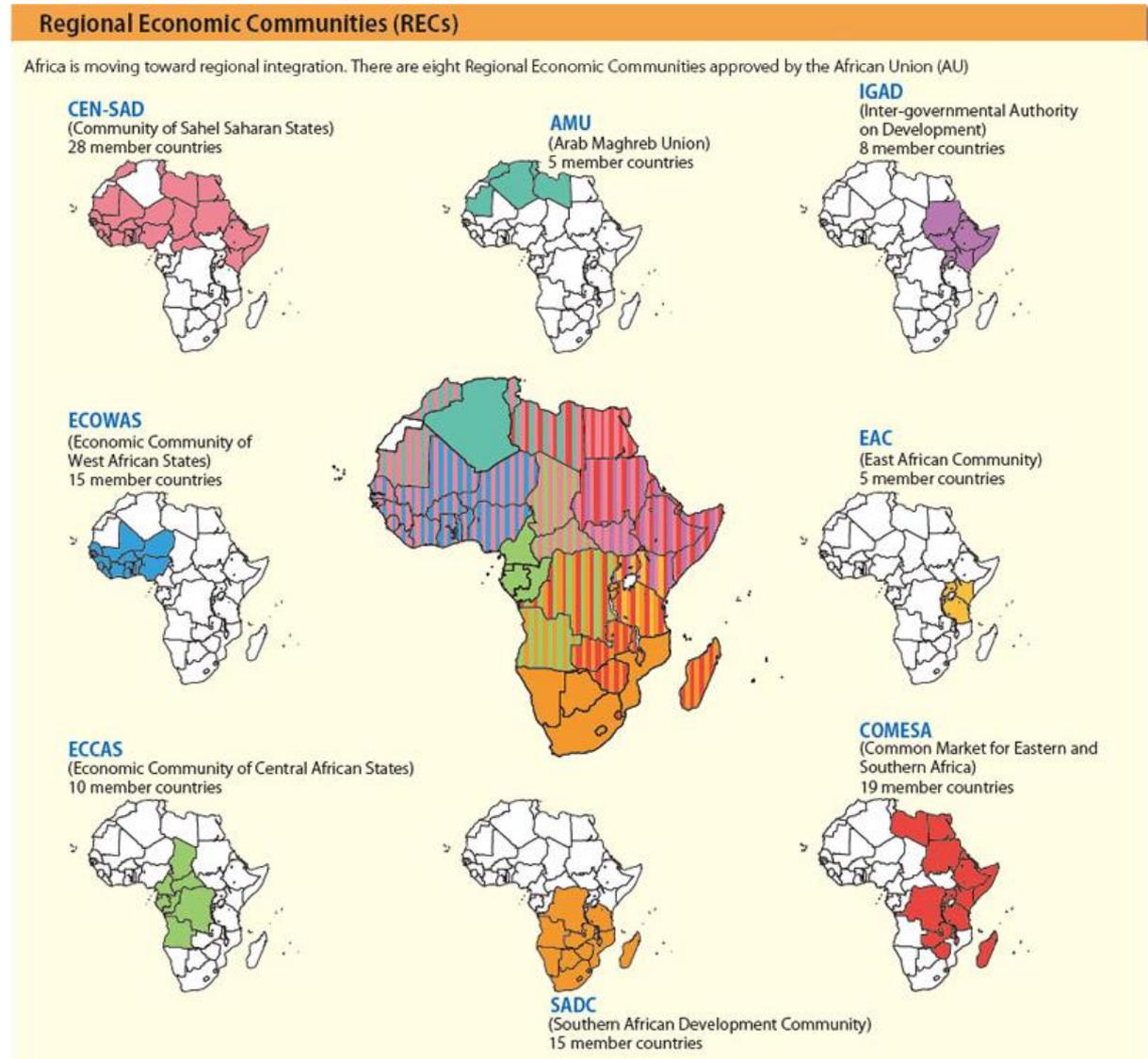
Transport Policy Paper

- accelerating implementation of the Yamoussoukro Decision, joining the Single African Air Market and upgrading air traffic management services in conformity with ICAO;
- expanding the “landlord” model to private sector operators to cover all port services, upgrading quay capacity, enforcing IMO standards on shippers, and facilitating the market share of African shippers where market conditions permit;
- developing and implementing measures to maximise the use of inland waterways linked to land transport networks.

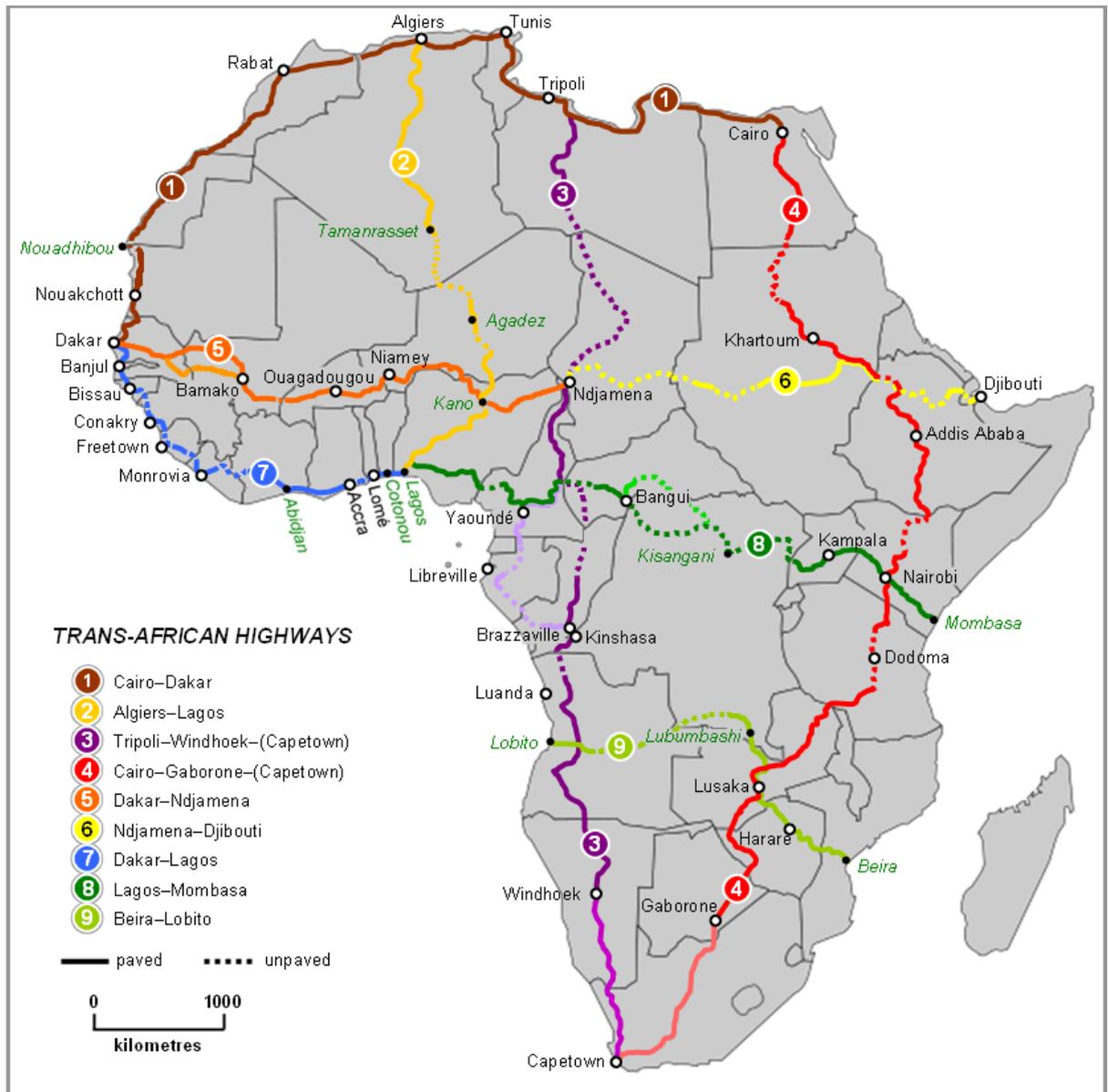
Appendix 1 Africa Union Transport Declarations and Decisions

Sector/topic	Promulgated or adopted
Air Transport	
Yamoussoukro Declaration	1988
Yamoussoukro Decision	1999
African Civil Aviation Policy	2011
Aviation Security and Facilitation	2016
Road Transport	
Africa Road Safety Action Plan 2011-2020	2011
Intergovernmental Agreement on the TAH	2014
Road Safety Charter	2016
Rail Transport	
Vision 2040, PIDA	2012
African High Speed Railway Network, Agenda 2063	2014
Maritime Transport	
African Maritime Charter	1994
Revised African Maritime Charter	2010
African Charter on Maritime Security Safety and Development	2016
Urban Transport	
Mobility in urban areas in Africa, African Transport Policy Program	2015
Multimodal Corridors	
SMART Corridors, PIDA	2012
Decision on Agenda 2063	
Malabo Conference of Ministers for Transport	2014
Climate Change	
African Climate Change Strategy – <i>(draft)</i>	2016

Appendix 2 Regional Economic Communities



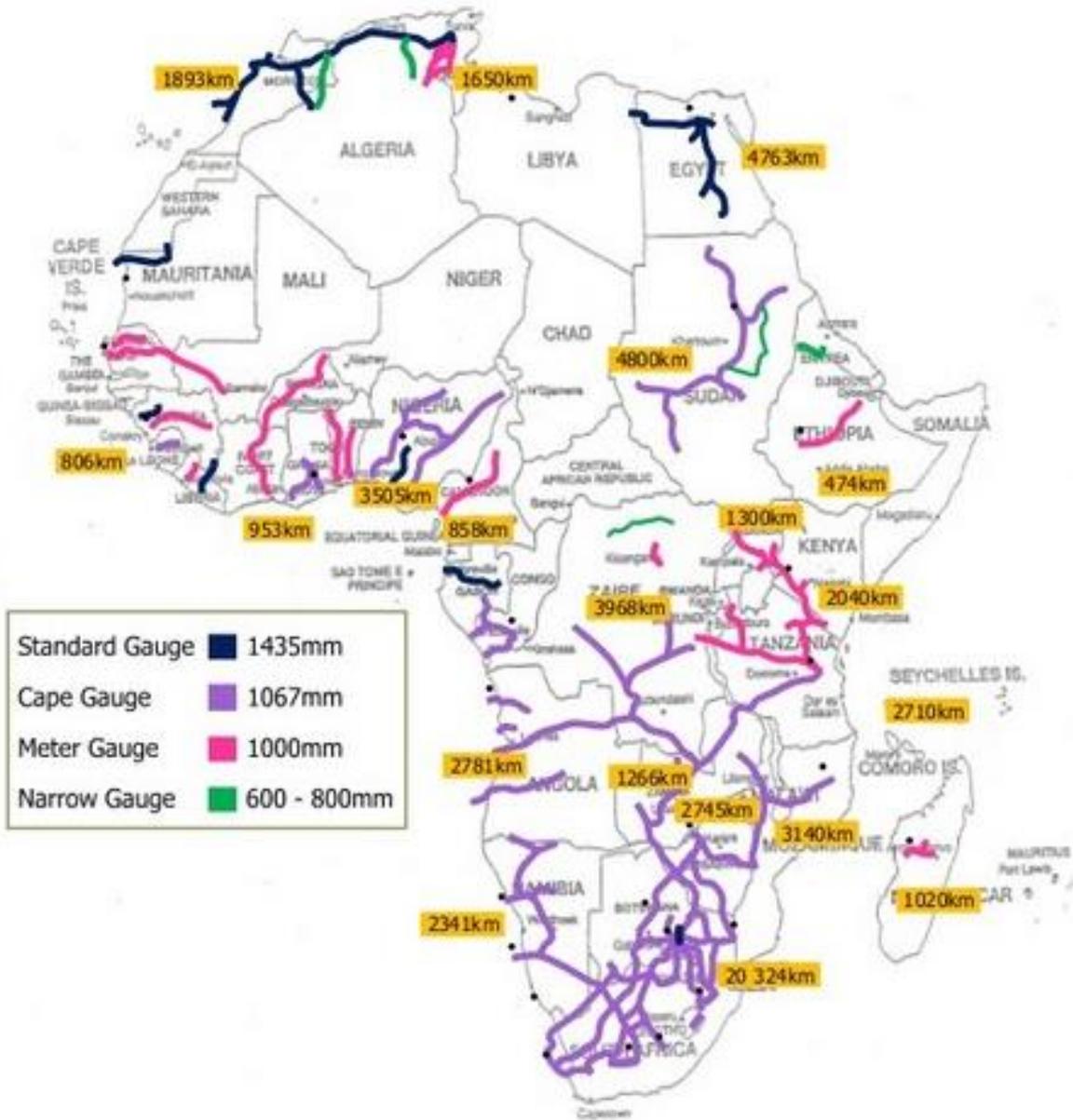
Appendix 3 Trans African Highways, Railways and Ports



Trans African Highways

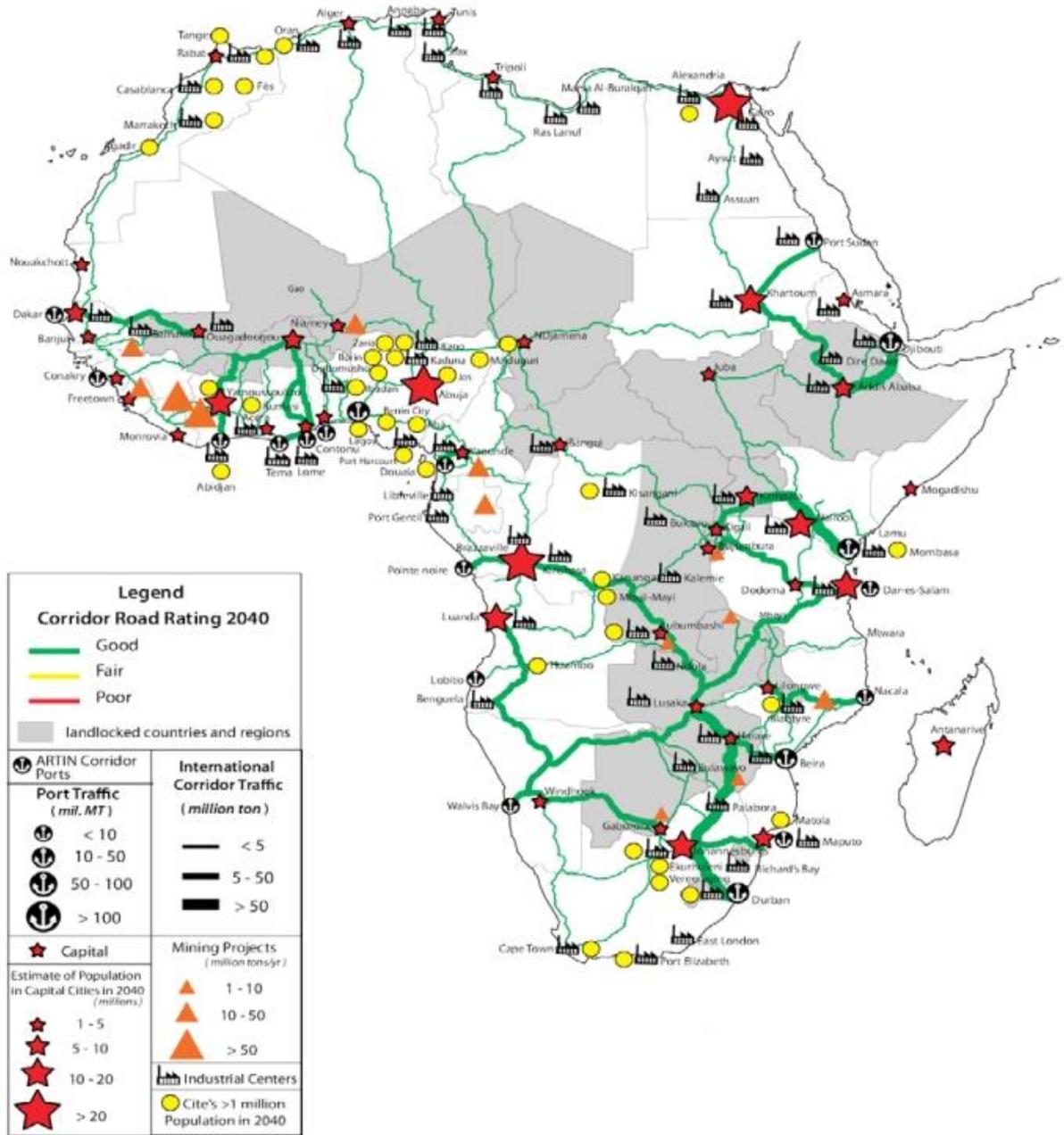
Source: PIDA.

Africa's Railways



Source: PIDA.

Africa's Ports



Source: PIDA.

References

- African Union Commission, Agenda 2063 Framework Document, *The Africa We Want*, September 2015
- _____, Report of the AU Conference of Ministers responsible for Transport, Malabo, Equatorial Guinea, April 2014
- _____, Maritime Transport: Increasing African Ports Capacity and Efficiency for Economic Growth, First Ordinary Session of the African Union Specialized Technical Committee on Transport, International and Interregional Infrastructure, Energy and Tourism, Addis Ababa, November 2016
- _____, STC 2016 Paper, Road Safety: African Action Plan for the Global Decade of Action for Road Safety
- _____, African Union Extraordinary Summit on Maritime Security and Safety and Development in Africa, Protecting Our Oceans, Lomé, Togo, October 2016
- _____, Review of the Implementation Status of the Trans African Highways and the Missing Links, SWECO International and Nordic Consulting Group, Sweden in association with BNETD Cote d'Ivoire and UNICONSULT, Kenya
- _____, African Strategy on Climate Change, May 2014
- _____, Report of the Ministerial Conference on Aviation Safety in Africa, Abuja, Nigeria, July 2012
- African Development Bank: Programme for Infrastructure Development in Africa – Interconnecting, integrating and transforming a continent
- _____, Africa Climate Change Fund, Supporting African countries to access international climate finance
- Africa Transport Policy Program (SSATP), Reviving Trade Routes – Evidence from the Maputo Corridor, Sandra Sequeira, Olivier Hartmann and Charles Kunaka, Discussion Paper No. 103 November 2014
- _____, Africa Transport Policies Performance Review – The Need for More Robust Transport Policies, Justin Runji, Working Paper No. 103 January 2015
- _____, Lessons of Corridor Performance Measurement, Gaël, Jean-Francois Marteau, Charles Kunaka, Jean-Kizito Kabanguka and Olivier Hartmann, Discussion Paper No 7, 2008
- _____, Policies for Sustainable Accessibility and Mobility in Urban Areas of Africa, Martin Stucki, Working Paper No. 106, June 2015
- _____, The Chirundu Border Post: Detailed monitoring of transit times, Barney Curtis, Discussion Paper No. 10, September 2009
- _____, Working Paper No. 101, Managing Road Safety in Africa: A Framework for National Lead Agencies
- _____, Working Paper No. 97, Guidelines for Mainstreaming Road Safety in Regional Trade Road Corridors
- _____, Working Paper No. 102, Private Sector Involvement in Road Financing, Peter Brocklebank, December 2014
- COP 22, Paris Process on Mobility and Climate: Declaration on Accelerated Action on Adaption in Transport, November 2016
- _____, Paris Process on Mobility and Climate: Ambitious Action on Transport and Climate Change Feasible Now – 20 Transport Quick Win Actions, November 2016
- East African Community Secretariat, Directorate of Infrastructure, Unpublished Railways paper, September 2016
- European Commission, COM (2000) 376 Interconnecting Africa: the EU-Africa Partnership on Infrastructure

- , COM (2009) 301 Connecting Africa and Europe: working towards strengthening transport cooperation
- , COM (2011) 144 Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system
- , JOIN (2016) 52 A renewed partnership with the countries of Africa, the Caribbean and the Pacific
- International Consortium for Africa, Infrastructure Financing Trends in Africa – 2014
- International Maritime Organisation, The Djibouti Code of Conduct, January 2009
- Nathan Associates Inc., Corridor Diagnostic Study of the Northern and Central Corridors of East Africa, April 2011
- United Nations, Transforming Our World: The 2030 Agenda for Sustainable Development, September 2015
- , Habitat III, New Urban Agenda, Quito, Draft September 2016
- United Nations Economic Commission for Africa, Assessing Regional Integration in Africa VII - Innovation, Competitiveness and Regional Integration, March 2016
- , Addis Ababa Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda)
- World Bank, Africa's Infrastructure – A Time for Transformation, Vivien Foster and Cecilia Brinceño-Garmendia, 2010
- , Africa's Transport Infrastructure: Mainstreaming Maintenance and Management, Ken William, 2011
- , Transport Prices and Costs in Africa: A review of the Main International Corridors, Supee Teravaninthorn and Gaël Raballand, 2009
- , HIV/AIDS Assessment in Sub-Saharan Africa Transport Projects, Jocelyne do Sacramento and Ekong Emah, March 2007
- , The Global HIV/AIDS Program, Lessons Learned to Date from HIV/AIDS Transport Corridor Projects, Stephen Brushett and John Stephen Osika, 2005
- , AICD Background Paper 7, Improving Connectivity: Investing in Transport Infrastructure in Sub-Saharan Africa, Robin Carruthers, Ranga Rajan Krishnamani and Siobhan Murray, June 2008
- , Enhancing the Climate Resilience of Africa's Infrastructure: The Roads and Bridges Sector, 2017
- , Attracting Investors to African Public-Private Partnerships, A Project Preparation Guide, 2009
- World Health Organization, Global Status Report