



United Nations
Economic Commission for Africa

Improving Transport Connectivity for LLDCs and the Status of Implementation of the Vienna Programme of Action in the Africa Region

Background report for the Africa regional review
meeting on the implementation of the Vienna
Programme of Action for the Landlocked Developing
Countries for the Decade 2014-2024

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ACRONYMS

ACG	Arab Coordination Group		Partners	SADC	Southern African Development Community
ACGF	African Credit Guarantee Facility	ICTs	Information, Communication Technologies	SAPP	Southern African Power Pool
AfCFTA	African Continental Free Trade Area	IDA	International Development Assistance	SARA	Southern African Railways Association
AfDB	African Development Bank	IPPF	Infrastructure Projects Preparation Facility	SDGs	Sustainable Development Goals
AfT	Aid for Trade	IT	Information Technology	SE4ALL	Sustainable Energy for All
AICD	Africa Infrastructure Country Diagnostic Study	ITU	International Telecommunications Union	SGR	Standard Gauge Railway
AIDA	Accelerated Industrial Development for Africa	IXPs	Internet Exchange Points	SMMEs	Small, Medium and Micro-sized Enterprises
ASA	Advisory Services and Analysis	GJVs	Global Joint-Ventures	SNCC	Congolese National Railways
ASYCUDA	Automated System for Customs Data	JICA	Japan International Cooperation Agency	SOEs	State Owned Enterprises
AUC	African Union Commission	LAPSSET	Lamu Port Southern Sudan-Ethiopia Transport	SSA	Sub-Saharan Africa
AXIS	African Internet Exchange System	LLDCs	Land Locked Developing Countries	SSATP	Sub-Saharan Africa Transport Programme
BAPA	Buenos Aires Plan of Action	LPI	Logistics Performance Index	SSC	South-South Cooperation
BIAT	Boosting Intra-African Trade	M&As	Majors and Acquisitions	STC	Specialized Technical Committee
BOO	Built-Own-Operate-Transfer	MGCI	Mountain Green Cover Index	STEM	Short Term Energy Market
BOOT	Built-Own-Operate-Transfer	R&D	Research and Development	STEM	Science, Technology, Engineering and Mathematics
BOT	Build Operate and Transfer	RJVs	Regional Joint Ventures	STI	Science, Technology and Innovation
BRI	Belt and Road Initiative	MMR	Maternal Mortality Ratio	TACB	Technical Assistance and Capacity Building
BRCS	Brazil India China Russia	MOTRACO	Mozambique Transmission Company	TAH	Trans African Highways
BTL	Built-Transfer-Lease	MOU	Memorandum of Understanding	TFA	Trade facilitation Agreement
CAR	Central African Republic	MW	Mega-Watts	TFI	Trade Facilitation Index
BRI	Belt and Road Initiative	NAM	Non-Aligned Movement	TFTA	Tripartite Free Trade Area
CAADP	Comprehensive Africa Agricultural Development Programme	NCTTA	Northern Corridor Transit and Transport Coordination Authority	TMEA	Trade Mark East Africa
CBM	Coordinated Border Management	NEPAD	New Partnership for Africa's Development	TMSA	Trade Mark Southern Africa
CBN	Continental Business Network	NPCA	NEPAD Planning and Coordinating Agency	TTFA	Trade and Transport Facilitation Audit
CEC	Copper-belt Electricity Company	NSW	National Single Window	TTTFP	Tripartite Trade and Transport Facilitation Programme
CEN-SAD	Community of Sahel-Saharan States	NTBs	Non-Tariff Barriers	UN	United Nations
COMESA	Common Market for Eastern and Southern Africa	NTFC	National Trade Facilitation Committees	UNCTAD	United Nations Conference on Trade and Development
COMRA	COMESA Railways Association	NVRs	National Voluntary Reviews	UNDP	United Nations Development Programme
COO	Certificate of Origin	ODA	Official Development Assistance	UNECA	United Nations Economic Commission for Africa
CPIS	Coordinated Port Information System	OECD	Organization for Economic Cooperation and Development	UNIDO	United Nations Industrial Development Organisation
CSOs	Civil Society Organizations	OSBP	One-Stop-Border-Post	UN-OHRLLS	United Nations Office of the High Representative for Least Developed Countries, Landlocked Developing Countries and Small Island Developing States
CTTFP	Comprehensive Tripartite Transport and Trade Facilitation Programme	PAeN	Pan African e-Network		
CVTFS	COMESA Virtual Trade Facilitation System	PIDA	Programme of Infrastructure Development in Africa		
DAM	Day Ahead Market	PMAESA	Ports Management Association of East and Southern Africa	UNOSSC	United Nations Office for South - South Cooperation
DFIs	Development Finance Institutions	PMACWA	Ports Management Association of Central and West Africa	USA	United States of America
DFID	Department for International Development	PNDES	National Plan for Economic and Social Development	VICMED	Lake Victoria Mediterranean Sea Project
DRC	Democratic Republic of Congo	PPDF	Project Preparation and Development Facility	VPoA	Vienna Programme of Action
DRM	Domestic Resource Mobilization	PPI	Port Performance Indicators	WACIP	West Africa Common Industrial Policy (WACIP)
EAC	East African Community	PPI	Private Participation in Infrastructure	WCO	World Customs Organization
ECCAS	Economic Community of Central African States	PPP	Public Private Partnership	WHO	World Health Organization
ECOWAS	Economic Community of West African States	RCBGS	Regional Customs Bond Guarantee Scheme	WTO	World Trade Organization
ECREEE	ECOWAS Centre for Renewable Energy and Energy Efficiency	RECS	Regional Economic Communities	YD	Yamoussoukro Decision
EQUIP	Enhancing the Quality of Industrial Policies	REIPPP	Renewable Energy Independent Power Producer Procurement	ZTK	Zambia-Tanzania-Kenya
ESA	East and Southern Africa	RIDMP	Regional Infrastructure Development Master Plan		
ETLS	Trade Liberalization Scheme	RRP	Railway Revitalization Programme		
EU	European Union	RSA	Republic of South Africa		
FTA	Free Trade Area	RTMS	Regional Transit Management System		
HDI	Human Development Index	RIXP	Regional Internet Exchange Point		
GCF	Green Climate Fund	SAATM	Single Africa Air Transport Market		
GDP	Gross Domestic Product	SACREEE	Southern African Centre for Renewable Energy and Energy Efficiency		
GEF	Global Environmental Facility				
GII	Gender Inequality Index				
HLF4	Fourth High Level Forum on AID Effectiveness				
ICA	Infrastructure Consortium for Africa				
ICPs	International Cooperating				

EXECUTIVE SUMMARY

The General Assembly of the United Nations in its resolution 72/232 decided to convene a comprehensive high-level midterm review on the implementation of the Vienna Programme of Action for the Decade 2014–2024, with the objective of analyzing the status of implementation of all aspects of the Programme as well as identify best practices, lessons learnt, obstacles and constraints encountered and hence actions needed to accelerate the implementation of the VPoA.

This report is presented in two parts: Part I: Improving Transport Connectivity for Land Locked Developing Countries; and Part II: Status of Implementation of the Vienna Programme of Action.

In Part I, the report sought to review the transport connectivity for LLDCs and building of resilient transport infrastructure to support accelerated progress of the Sustainable Development Goals (SDGs) in the region. In this regard, the report reviewed the existing status of LLDCs connectivity in the region, the status of the physical and soft infrastructure relating to all the modes of transport within the multi-modal transport context. Given the pivotal role of infrastructure maintenance, the report further reviewed not only the progress made in the development of transit transport infrastructure, but also the principles and state of maintenance of the same (rail, road, air, ports, inland waterways and pipelines) in the region since the adoption of the VPoA.

In Part II, the study reviews the Status of implementation of the Vienna Programme of Action by each of the six priority areas of the VPoA including: Fundamental transit policy issues; Infrastructure development and maintenance; International trade and trade facilitation; Regional integration and cooperation; Structural economic transformation and Means of implementation. The study further reviewed the trends and current situation of the overall economic development of LLDCs since the adoption of the VPoA and how the challenges associated with landlockedness have affected them, including a comparative analysis of the state of development in connectivity amongst the sub-regions of the Africa region.

Summary of Part I: Improving Transport Connectivity for Land Locked Developing Countries

Given that intra-Africa trade is only 12% of all trade on the continent, Africa needs to improve transport infrastructure in order to increase the volume of trade

amongst African countries as well as promote deeper integration. Road dominates the transport sector in most African countries, covering 80-90 per cent of the passenger and freight traffic. The Trans-African Highway Network, which is at the heart of regional connectivity for the continent has a total length of 54,120 km distributed along nine corridors. However, it is characterized by missing links and poor maintenance in some key segments.

The study identified a number of transport corridors designated by the Regional Economic Communities which are the focus of infrastructure development and transport connectivity. In addition, the study also recognized the transport corridors identified under PIDA programme, which constitute the veins and arteries of transportation into and out of LLDCs in Africa. Other key initiatives of the Corridor Development Programme that were reviewed include: One Stop Border Posts; Corridor Infrastructure; Transport and Transit Facilitation Measures; Corridor Performance-Monitoring and Evaluation and Capacity Development. Whilst road development, rail and road rehabilitation has been undertaken in the region, the backlog on corridor infrastructure development remains high, and it all adds up to the infrastructure gap phenomenon. More still needs to be done if the corridor infrastructure is to be brought to the prescribed standards, like, for example, the Maputo Development Corridor. There is need to prioritize infrastructure connectivity projects for LLDCs to those which bring huge impact in the short term as well as the medium and long term

Railway transport has suffered maintenance decline owing to poor governance, and civil strife, resulting in poor connectivity and service to LLDCs. However, concerted efforts are underway to improve the railway infrastructure and governance of the same to bring about an essence of sustainability in these largely state enterprises. Other railways have been operated by the private sector and have displayed much better norms of performance with a clear customer focus.

The Single African Air Transport Market (SAATM) and its various provisions was launched in 2018 to fast track the implementation of the Yamoussoukro Decision and create a single unified air transport market in Africa to advance the liberalization of civil aviation in Africa and act as an impetus to the continent's economic integration agenda. LLDCs like Ethiopia and Rwanda have emerged as key players in the air transport arena and have improved their connectivity with other

African states and beyond.

In an effort to enhance the enabling environment for development and investment in infrastructure, LLDCs have been part of the development and implementation of appropriate regulatory frameworks, which have been coordinated by regional regulatory bodies largely in energy and ICT. However, not enough has been done to put in place an ideal regulatory framework to effectively compete with other regions of the world.

One of the key challenges that Africa continues to confront on infrastructure expansion and upgrading, is the availability of a sustainable plan for infrastructure maintenance. Newly commissioned infrastructure often suffers from dilapidation due to lack of provision for proper maintenance. Efforts continue to be made to cater and provide for maintenance by most state-owned enterprises, but can hardly meet the prescribed national, regional and international maintenance standards and benchmarks. In view of this, most countries have undertaken road sector management reforms to address financing maintenance, rehabilitation and construction of new roads. Furthermore, most states have established dedicated Road Funds and Road Authorities/Development Agencies to undertake maintenance, and development of roads for both the regional and national road networks.

The continent has experienced poor progress in implementing infrastructure projects. The slow pace of deployment of infrastructure has been way below the targets at both the national and regional levels and constitutes a concern for all stakeholders. Some of the challenges with delivery of infrastructure identified by NEPAD include: Lack of bankable projects in the region; Limited capacity at the level of the RECs, member States, NEPAD and African Union to coordinate and guide the implementation of projects with various partners; Limited funding for infrastructure, then sometimes implemented through grants and loans to the states; Low participation of the private sector in infrastructure financing; Lack of an enabling environment for investment in infrastructure by the private sector from a policy, legal and regulatory framework; and Sub-economic tariffs for the provision of service.

Funding sources for infrastructure development in Africa include sovereign loans (mostly at middle income countries rates), grants, Development Finance Institutions, Public Private Partnerships, domestic resources, commercial banks (like Standard Bank), Insurance and Pension Funds. It is necessary that Africa moves to full cost recovery, with subsidy

frameworks agreed to cushion the poor through state funding customized on a state by state basis. A trend analysis of development finance suggests China and Asia are emerging as the key financiers of infrastructure in Africa. It is important for countries to domesticate regionally agreed policy, regulatory and legislative frameworks in order to attract investment into infrastructure development. It has also been argued that regional integration projects attract better economies of scale, more so given the geographical isolation of LLDCs.

Many countries, including LLDCs, have now turned to domestic resources for funding of infrastructure. On the other hand, there has also been growing support through Aid for Trade, which benefits LLDCs, in support of trade carrying infrastructure development (both hard and soft). The appetite for private sector financing remains low, save in the ICT sector, and on a limited scale, energy and transport. The need for Africa to ensure an enabling environment for investment in infrastructure has become more important than ever before, as Africa seeks private sector investment that is normally accompanied by efficiency and high quality of service delivery.

SUMMARY RECOMMENDATIONS

The review suggests that whilst good progress has been made with the deployment of connectivity infrastructure in Africa, the situation at present falls short of the ideal transport network that is required to fully facilitate connectivity of LLDCs in the Africa region. The existing transport network is riddled with a large number of missing links, deferred maintenance (for road, rail, ports) and ongoing projects are taking too long to complete to address the needs of the LLDCs in the short to medium term.

In relation to strategies to enhance transport infrastructure connectivity, it is critical that the Africa region and LLDCs prioritize few projects that have greater impact on the economic development of LLDCs and other African states. There is need to ensure that there is a pipeline of bankable infrastructure projects for investment through the various funding mechanisms that have been identified in this report.

There are a number of soft issues that require attention to ensure the deployment of enabling infrastructure and the ensuing operations of such networks, which include weak regulatory environment, poor facilitation of projects by central governments and high transaction costs. It is critical for the states to take steps to address these shortcomings. In the area of

air transport, it is critical for the African Union to keep pushing for further liberalization and implementation of the open skies within the framework of the Single African Air Transport Market (SAATM), in order to allow LLDCs to grow their networks within Africa.

SUMMARY OF PART II: STATUS OF IMPLEMENTATION OF THE VIENNA PROGRAMME OF ACTION

Part II reviews the status of implementation of the Vienna Programme of Action and its attendant priorities. Over the review period, 2014 – 2018, LLDCs in Africa have experienced mixed fortunes in terms of economic growth, whilst others experienced fair growth, there are some that experienced negative growth. Africa's LLDCs have also continued to register appreciable gains in health outcomes particularly in child and maternal health and in combatting HIV. Similar progress has been noted in education outcomes particularly improvements in gross and net enrolment ratios at primary school level. However, African LLDCs continue to face high unemployment due to limited economic opportunities in the labor market.

PRIORITY AREA 1: FUNDAMENTAL TRANSIT POLICY ISSUES

As of the end of 28 February 2019, 13 African LLDCs out of 14 that are WTO Members had ratified the World Trade Organization Trade Facilitation Agreement (TFA) and 13 African transit countries out of 19 had also ratified it. It is critical to continue to lobby states to expeditiously ratify this crucial agreement to ensure that each state discharges its obligations to implement the provisions of the agreement. There were not many LLDCs and transit countries that became party to some of the main transport and trade facilitation related international agreements. 1 LLDC and 3 transit countries ratified the WCO Revised Kyoto Convention over the review period.

The continent reached a new milestone in 2018 when African Union member States signed the agreement on the establishment of the African Continental Free Trade Area (AfCFTA). The agreement includes provisions on trade facilitation, transit and customs cooperation. There has been noticeable growth in regional initiatives aimed at easing movement of goods and people across borders. In 2015, the Agreement for the Establishment of a Tripartite Free Trade Area was signed by member and partner States of the Common Market for Eastern and Southern Africa, EAC and SADC.

In 2015, the Heads of State and Governments of the African Union adopted a decision in which it called on countries to introduce a 30-day visa on arrival for all

citizens of African countries. Countries such as Ghana, Ethiopia and Rwanda have taken the lead by relaxing visa restrictions and offering a visa-on-arrival option for all Africans. Other initiatives such as the African passport, visa-free regional blocs, or multi-year visas, aimed at facilitating free movement of persons, goods and services around the continent should continue to be promoted by African Union.

The specific objective of the VPoA is to reduce travel time along the corridors with the aim of allowing transit cargo to move 300-400km for every 24hours. Some corridors such as the Central Corridor and Trans Kalahari have managed to achieve the VPoA specific objective, however other corridors have not yet achieved the target while some corridors do not have readily available data on the indicator.

Progress has also been made in reducing the average cargo dwell time at ports. The port of Durban is comparable to ports in Asia and with a dwell time of four days. Cargo dwell time has been reduced from 14 days in 2012 to 9 days in 2017 at Dar es Salaam port and from 11 days to 4 at Mombasa port over the same period. Other port dwell times identified in 2017 were: in Douala, Cameroon, 17 days; in Lomé, Togo, 9 days; in Tema, Ghana, 15 days. More efforts are needed to reduce the port dwell times, and there is a need to capture data and update it regularly in order to monitor this objective.

PRIORITY AREA 2B: ENERGY

Africa continues to lag behind in terms of access to electricity and has experienced very low increases to energy resources over the review period. A number of generation and transmission projects are in the process of being implemented or have been successfully implemented, although demand continues to surpass supply. Innovative ways of financing the power sector (including private sector) are required. According to the study, the average LLDCs access to electricity increased from 24.3% in 2014, to 27.6% in 2016, compared with an increase of 60% to 62% global figure for LLDCs as well as an increase of 84% to 86% for the world average, suggesting African LLDCs still need to do a lot to catch up with the global norms. Furthermore, whilst urban dwellers enjoyed 61.6% in urban areas, only 13% of rural dwellers had access to electricity, suggesting the need to accord priority to rural areas by LLDCs. Africa has experienced significant growth in the renewable energy market as these states include renewables in their generation capacity planning and have taken steps to integrate these technologies into their overall energy supply systems. In addition, between 2014 and 2016, African LLDCs scored more than 70% (against

global LLDCs figure of 16%) in terms of renewable energy consumption as a percentage total final energy consumption.

PRIORITY AREA 2B: ICT DEVELOPMENT

African LLDCs have witnessed an increase in mobile cellular subscriptions. The average number of internet users in this group of countries has also been rising. However, African LLDCs lag behind the averages for all LLDCs and world. ICT resources in the Africa region still fall way below the global targets, and more importantly, more needs to be done to increase access to broadband ICT as well as reduce costs through enhanced competition and the introduction of multiplicities of players. A number of ICT projects and initiatives have been implemented under the guidance and leadership of the African Union Commission and the Regional Economic Communities (RECs) and these include the African Internet Exchange System (AXIS), an African Union Commission initiative which restricts intra-Africa internet traffic within Africa by supporting the establishment of National Internet Exchange Points and Regional Internet Exchange Points in Africa as well as the development of a Pan African e-Network which links various centres across Africa via satellite and other cyber based applications.

PRIORITY AREA 3: INTERNATIONAL TRADE AND TRADE FACILITATION

The African LLDCs' merchandise exports decreased from US\$2.9 billion in 2014 to 2.5 billion in 2017. Their share of merchandise exports as a percentage of total world trade also declined from approximately 0.23% in 2014 to 0.21% in 2017. While the LLDCs' share of trade is relatively low compared to their transit counterparts, trade remains very important to their economies. However, LLDCs are still dependent on primary goods for exports as their share of primary commodities, precious stones and non-monetary gold in merchandise exports was 85% in 2017. There is need for greater diversification and value addition.

Trade facilitation measures that have been implemented over the review period include customs and border management, introduction of One-Stop-Border-Posts overload control measures, implementation of harmonized road user charges and the Smart Corridor concept. More needs to be done to effectively implement the WTO Trade Facilitation Agreement.

PRIORITY AREA 4: REGIONAL INTEGRATION

With regards to Africa's behind the border agenda, forty-four countries signed the consolidated agreement establishing AfCFTA, the Protocol on Trade in Goods, the Protocol on Trade in Services and the Protocol on Rules and Procedures on the Settlement of Disputes in Kigali during the 10th African Union Extraordinary Summit. With the advent of AfCFTA, it is expected that Intra-African trade will continue to grow among African countries as regional integration continues to serve as a useful vehicle for reducing some of the trade barriers, paving a way and creating a conducive environment for private sector to operate. African LLDCs have become more active participants in regional trade agreements and economic blocks as each of these countries participate in at least one or more regional or bilateral agreements/arrangements.

PRIORITY AREA 5: STRUCTURAL ECONOMIC TRANSFORMATION

Informality is a defining feature of African labor markets. The informal economy accounts for an estimated 50–80 percent of GDP, 60–80 percent of employment, and up to 90 percent of new jobs in Africa and more than 60 percent of the population performs low-paid informal jobs. African states have recognized that the economic fortunes of their countries can only be enhanced through accelerated industrialization, value addition to their natural resources and enhanced beneficiation.

The African Union, in consultation with other Pan African institutions, launched the Accelerated Industrial Development Plan for Africa (AIDA). Based on the Plan, the Action plan for AIDA was developed to guide the implementation of this programme. The Regional Economic Communities, on their part, have also taken the opportunity to develop their own industrialization policies and strategies, which have hindered structural economic transformation. A number of priority development pathways associated with specific regional and global value chains have been identified, and these include: Agro-processing; Minerals beneficiation; Pharmaceutical industries value chains; Capital goods manufacturing; Forestry products; Service Cluster.

As part of the continentally and regionally facilitated programmes, a number of LLDCs have identified some value chains in which they could participate in. Within the context of the COMESA-EAC-SADC Tripartite, the value chains identified include the agro-sector

encompassing maize; cassava; fish; hides, shoes and leather, as well as sugar.

PRIORITY 6: MEANS OF IMPLEMENTATION

In 2017, African LLDCs received \$17.9 billion in official development assistance (ODA), a real increase of 24 per cent since the adoption of the Vienna Programme of Action. However, ODA was unevenly distributed among them. In 2016, ODA inflows accounted for more than 10 per cent of GNI in six African landlocked developing countries. In 2017, African landlocked developing countries received \$8.2 billion in FDI flows, which amounted to 0.58 per cent of total global FDI inflows and 36.2 per cent of FDI inflows to all landlocked developing countries. FDI flows to the African landlocked developing countries have been increasing since 2010, apart from a slight decline in 2016. The FDI inflows to the African landlocked developing countries have been highly concentrated, with three countries accounting for 65.4 per cent of the total flows in 2017. A large share of the FDI flows were committed to the extractive sector, specifically, mining, quarrying and petroleum. There is a growing importance of South-South cooperation for landlocked developing countries. There is a new drive to attract private sector funding, for example, the AfDB Africa50 Fund was launched in 2013, with the objective of leveraging private financing to bridge the infrastructure gap.

SUMMARY RECOMMENDATIONS OF PART II

More collective efforts are needed to improve the implementation of the TFA Agreement in LLDCs and transit countries. The implementation of the VPoA is confronted with limited mainstreaming into the regional and continental agenda, and hence greater collaboration between the UN family, the RECs and the African Union is required to fully mainstream the programme into the latter's strategies and action plans. Greater commitment is required to push through the industrialization agenda, in order to achieve value addition and beneficiation. It is also important to upscale the application of smart technology to improve both productivity and quality of goods for trade, however this must be underpinned by robust technology transfer measures. Whilst agriculture remains an important aspect of the economy, its low yield suggests the need to migrate to high yield sectors like mining and services, in order to address the challenge of low average wages in LLDCs.

INTRODUCTION

Thirty-two of the world's landlocked countries with a population of over 500 million, face an array of challenges mainly associated with their lack of direct territorial access to the sea and remoteness from world markets. Their dependence on other countries for international trade via transit states is an element that adds on to these various challenges. To address these particular constraints, there has been an increase in recognition of landlocked developing countries and their specific needs at the United Nations. The Vienna Programme of Action (VPoA) was adopted in 2014 as a successor programme to the Almaty Programme of Action. The VPoA addresses the challenges faced by landlocked countries and aims to contribute to the eradication of poverty stemming from their landlockedness, through the implementation of specific actions under six priority areas including: Fundamental transit policy issues; Infrastructure development and maintenance focused on Energy and information and communications technology infrastructure; International trade and trade facilitation; Regional integration and cooperation; Structural economic transformation; and Means of implementation.

This report includes Part I: Improving Transport Connectivity for Land Locked Developing Countries; and Part II: Status of Implementation of the Vienna

Programme of Action. The report is commissioned as part of the preparations for the High-Level Midterm Review on Implementation of the Vienna Programme of Action for the Decade 2014 – 2024, to be convened in December 2019 in New York.

The report is largely based on national reports from LLDCs, information from regional Economic Communities, including Common Market for East and Southern Africa (COMESA), East African Community (EAC) and the Southern African Development Community (SADC), Economic Community of West African States (ECOWAS), Economic Community of Central African States (ECCAS), as well as other international and regional sources.

The key principles and objectives of the VPoA are fully embedded and mainstreamed with the Agenda 2063, UN Sustainable Development Agenda and the AfDB High Fives, namely, Light up and Power Africa, Feed Africa, Industrialise Africa, Integrate Africa and Improve the Quality of Life for the People of Africa.

Africa is host to sixteen of the thirty-two landlocked developing countries (LLDC) of the world.

PART I: IMPROVING TRANSPORT CONNECTIVITY FOR LANDLOCKED DEVELOPING COUNTRIES

1.1. Background

Part 1 of the report seeks to review the state of transport connectivity in Africa, with specific focus on the impact it has made on LLDCs' access to the seas as well as on other socio-economic activities by 2018, since 2014, when the Vienna Programme of Action for the Decade 2014–2024 was launched.

The interface between transportation, investment and economic development has broad ramifications on movement of goods and people. Transportation is at the core of the operation of a market economy and impacts directly on productivity and development. The relationship between the quantity and quality of transport infrastructure and the level of economic development is apparent.¹ The impact of transport on economic development of Africa cannot be over emphasized. Inferior transport systems have negative knock-on effects on the economies of countries, including high transaction costs of doing business. In fact, the relationship between effective transport systems and economic development is shown by African economies that exhibit the lowest levels of productivity and are the least competitive in the world. Given that intra-Africa trade is only 12% of all trade on the continent, Africa needs to improve transport infrastructure in order to increase the volume of trade amongst African countries as well as promote deeper integration. This in turn will facilitate the growth of key sectors of African economies. On the other hand, high density transport infrastructure and highly connected networks are commonly associated with high levels of development.²

Inadequate infrastructure in sea ports in Africa compromises the competitiveness of market centres given the fact that about 80% of the world's trade is facilitated by sea ports linked to road and rail infrastructure. Despite the high volumes of goods that require transport, most African countries prioritize road infrastructure investments over rail transport investment due to the enormous capital investment needed for rail infrastructure and rolling stock. As such, the inadequacy of transport systems cut LLDCs

off from external markets and makes it difficult to stimulate economic activities in these states. Similarly, the provision of air transport infrastructure plays a big role in boosting economic development. Air transport plays a significant role in linking countries, cities and towns with respect to transporting goods needed for development and reduces barriers for landlocked countries.

Africa adopted the corridor concept as a mechanism for development of transport networks, linking the various states to and from the ports, as well as linking states economically through trade. A transport corridor is generally a channel that is defined by one or more modes of transportation like highways, railways, inland waterways, border posts linking sea and inland ports. Recognizing the cardinal role that regional corridors play in fostering regional integration and development, the African Development Bank, in collaboration with its other Pan African partners (the African Union and the United Nations Economic Commission for Africa) sought to provide the rationale for transforming Africa's potential regional transport corridors into economic corridors, with the key objective to stimulate intra-regional and global trade, as well as foster market integration.³

For land-locked countries, the corridors constitute a new opportunity to participate in regional and global trade. The process of corridor development entails provision of hard and soft infrastructure components of development. This encompasses construction, maintenance and rehabilitation projects, as well as trade facilitation measures underpinned by capacity-building programs, climate resilience, as well as gender equity and social inclusion. It is also expected that corridor development programmes would also deliver on issues relating to economic, social and environmental sustainability, as well as address poverty, in particular for LLDCs that are subjected to constraints in terms of access to the sea. Corridors are also viewed as conduits of growth and regional integration and ultimately, engines of regional development. The corridor concept will in this report, be a key basis for evaluation of the progress the continent has achieved

¹Transportation and Economic Development, Dr Jean-Paul Rodrigue and Dr Theo Notteboom, 2016.

² The Impact of Transport on Economic Development of Africa, Kgomoitso Modise (2015), Deputy Director General, Department of Public Enterprises, South Africa

³African Development Bank Group Regional Integration Brief, NEPAD, Regional Integration and Trade Department, 2013

in terms of transport connectivity, and the impact it has had on African LLDCs.

The development of infrastructure is aimed at bringing about impactful transformation of the economic fortunes of both LLDCs and coastal transit states and contribute towards the wider objectives of the Vienna Programme of Action. **Table 1.1** summarizes and underscores some of the key outcomes expected from implementation of the various facets of infrastructure.⁴

The next section will review transport connectivity

focusing on corridors development, road, railway, ports and air transport. The section will also discuss infrastructure financing.

Table 1.1. Indicators of regional impact of infrastructure projects

Type of Infrastructure	Regional Impact Indicator
Ports	<ul style="list-style-type: none"> • Cargo dwell time • Document Processing Centre processing time • Container vessel movements: waiting time before berth and the average monthly turnaround time • Delay after Customs Release
Road/rail & bridges	<ul style="list-style-type: none"> • Transit time
Border posts	<ul style="list-style-type: none"> • Customs clearance time • Release and clearance of goods • Indicators related to customs and other regulatory trade procedures • Time or cost performance indicators • Average number of days to clear direct exports through customs • Average number of days to clear imports from customs • Border administration
Corridor performance	<ul style="list-style-type: none"> • Average transit time • Direct cost (trucking, rail inland destinations, and clearance charges) • Indirect cost (including both demurrage charges paid and the hidden cost of additional trucking capacity)

⁴Source: ACBF Final Report on Regional Trade Policy Guidelines for Cross Border Infrastructure, Ndlovu, B, 2018

1.2. Status of Corridor Development in Africa

The following depicts the key transport corridors in Africa, which constitute the veins and arteries of transportation into and out of LLDCs in Africa, as defined by the Programme of Infrastructure Development in Africa (PIDA). These include, but not limited to the Abidjan-Lagos Coastal Transport Corridor; Abidjan-Ouagadougou-Bamako Multimodal Transport Corridor; Beira-Nacala Multimodal Transport Corridor; Central Multimodal Transport Corridor; Dakar-Bamako-Niamey Multimodal Transport Corridor; Djibouti-Addis Transport Corridor; Douala-Bangui Douala-NDjamena Multimodal Transport Corridor; North-South Multimodal Transport Corridor; Northern Multimodal Transport Corridor; Pointe Noire-N'Djamena Multimodal Transport Corridor; and Praia-Dakar-Abidjan Multimodal Transport Corridor.

The New Partnership for Africa's Development (NEPAD), now re-named the African Union Development Agency (AUDA), has sought to locate the ownership and Championship of Africa's Infrastructure Development to the level of Heads of states and other eminent persons across the continent, in order to create much greater awareness on the key projects, increase traction on pace of implementation as well as leverage the much-needed funding for infrastructure. In this regard, NEPAD appointed a number of African leaders as Champions for various infrastructure projects, within the framework of the Presidential Infrastructure Championship Initiative (PICl) as in **Table 1.2** below.

In the same vein, in order to address the infrastructure gap to advance economic and sustainable development, through regional and continental co-operation and solution-finding, the Chairperson of the

African Union Commission, Moussa Faki Mahamat, with the endorsement of the President of Kenya, appointed Former Kenyan Prime Minister, Honourable Raila Odinga, as High Representative for Infrastructure Development in Africa on 20 October 2018.⁵ This decision is part of the African Union's drive to expedite the integration of the continent through infrastructure development, in order to promote economic growth and sustainable development. It comes against the backdrop of renewed efforts in this regard, as exemplified by the adoption, of the Agreement on the African Continental Free Trade Area (AfCFTA) and the Protocol on Free Movement of Persons and the African Passport in March 2018 as well as the launching of the Single African Air Transport Market (SAATM), in Addis Ababa in January 2018. The Chairperson of the Commission expressed appreciation to President Uhuru Kenyatta for his support to this decision, consistent with his commitment to African integration.

As High Representative for Infrastructure, Hon. Odinga works to support and strengthen the efforts of the Commission's relevant Departments and those of the NEPAD Agency, within the framework of the Programme for Infrastructure Development in Africa (PIDA). In this respect, his mandate includes mobilizing further political support and development assistance from Member States and Regional Economic Communities, as well as facilitating greater ownership by all concerned stakeholders on the continent. He will also support the NEPAD Agency initiatives to encourage increased commitment from development partners.

⁵Source: NEPAD Agency 2018

Table 1.2. Presidential Infrastructure Champions Initiative Projects

Champion	Country	RECs	Project	Estimated cost
President Abdelaziz Bouteflika	Algeria	ECOWAS and AMU - Algeria, Niger, Nigeria, Tunisia, Mali and Chad	Missing Links on the Trans-Sahara Highway - Construction of 225 km of road between Assamakka and Arlit, Niger	USD102 million
President Abdelaziz Bouteflika	Algeria	ECOWAS and AMU Algeria, Niger, Nigeria and Chad	Installation of 4 500 km of terrestrial optic fibre cable	USD80 million
President Muhammadu Buhari	Nigeria	ECOWAS and AMU Nigeria, Niger and Algeria	Nigeria-Algeria Gas Pipeline Project (Trans-Sahara Gas Pipeline) - a 4 401 km natural gas pipeline from Nigeria to Algeria via Niger, and from Algeria to Spain	USD10 billion (48" line) and USD13.7 billion (56" line) (2006)
President Macky Sall	Senegal	ECOWAS, ECCAS, COMESA and IGAD - Senegal, Mali, Burkina Faso, Niger, Nigeria, Cameroon, Chad, Sudan, Ethiopia and Djibouti	Dakar-Ndjamena-Djibouti Road/Rail Project - An 8 715 km road/rail project which entails combining TAH 5 (Dakar to N'djamena) and TAH 6 (N'djamena to Djibouti)	USD2.21 billion for the road link and USD5.95 for the rail section
President Jacob Zuma	Republic of South Africa	SADC, COMESA and EAC - South Africa, Botswana, Mozambique, Zambia, Zimbabwe, Tanzania and Malawi	Construction of a multi-modal trans-continental interconnector – North-South Corridor Road/Rail Project	N/A. Cost is based on the specific project within the corridor
President Denis Sassou Nguesso	The Republic of Congo	ECCAS, CEMAC, SADC and COMESA - Republic of Congo and the DRC	Kinshasa-Brazzaville Bridge Road/Rail Project linking Kinshasa in Democratic Republic of Congo (DRC) with Brazzaville in Republic of Congo	N/A, funded by AfDB
President Paul Kagame	Rwanda	All RECs - All African countries	Unblocking Political Bottlenecks for ICT Broadband and Optic Fibre Projects Linking Neighbouring States	N/A
President Abdel Fattah el-Sisi	Egypt	COMESA, IGAD, EAC and SADC - Egypt, Kenya, Uganda, Sudan, South Sudan, DRC Burundi, Ethiopia, and Tanzania	This project has various components focusing on water management and intermodal transport	To be determined
President Uhuru Kenyatta	Kenya	COMESA, CEN-SAD, EAC, IGAD - South Sudan, Ethiopia, Uganda and Kenya	The project will entail various transport node developments - Lamu Port Southern Sudan-Ethiopia Transport Corridor Project (LAPSSSET)	Sh2.7 trillion

Source: NEPAD website, 2018

In the discharge of his mandate and building on the work and leadership of the PIDA Presidential Infrastructure Champion Initiative, the High Representative will pay particular attention to the missing links along the transnational highway corridors identified as part of the Trans-African Highways Network, with a view to facilitating their development and modernization. He will also interact with the current NEPAD PICI Champions. His interventions will no doubt give traction to projects and programmes that enhance LLDCs access to the seas and the rest of the world.

In relation to the corridors in East and Southern Africa, the SADC corridors serve six SADC LLDCs states, namely, Botswana, Lesotho, Eswatini, Malawi, Zambia and Zimbabwe, and the performance of these corridors has a direct bearing on the socio-economic well-being of these countries, impacting directly on the cost of goods and services, the cost of doing business and ultimately, competitiveness. Similarly, corridors in East Africa equally serve Burundi, Ethiopia, Malawi,

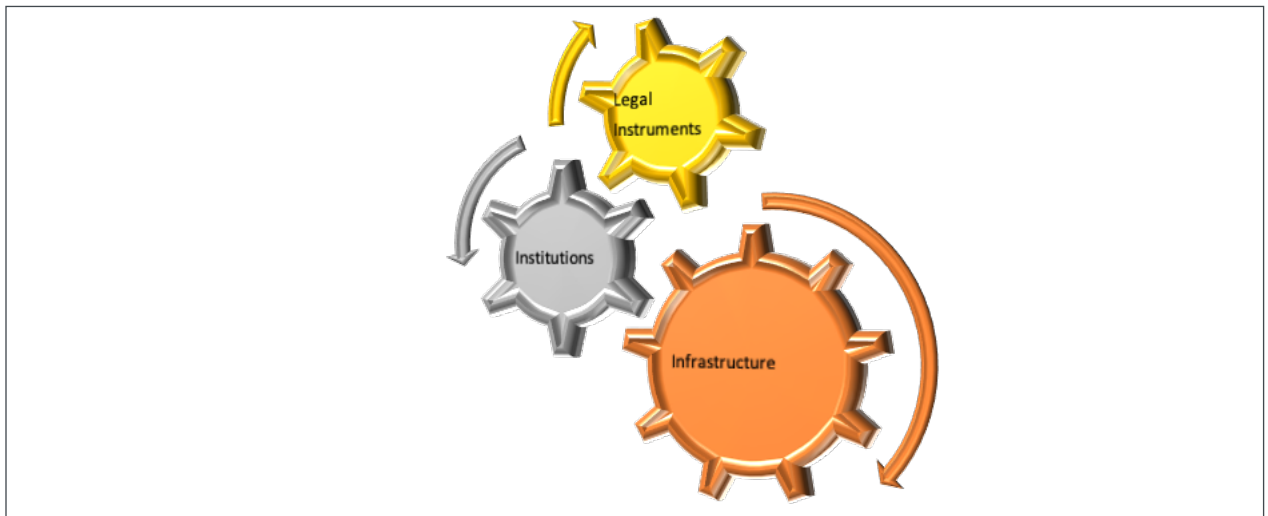
Rwanda and Zambia. On the other hand, corridors in Central and West Africa serve the landlocked countries of Burkina Faso, Central African Republic, Chad, Mali and Niger.

As a basis for the assessment, the report highlights progress in the attainment of a number of outcomes that include Legal Instruments for joint governance of corridors, Institutional Frameworks for joint and coordinated management of transport corridors, the development of critical corridor Transport and Logistics Infrastructure Networks, as well as the implementation of Simplified and Harmonised Trade and Transport Facilitation policies, laws, policies, regulations, standards and systems. These are referred to as the 3Is, as depicted in **Figure 1.1** below ⁶

Other key initiatives of the Corridor Development Programme entail the following:

- One Stop Border Posts on key regional border crossing points to improve border efficiency and

FIGURE 1.1 The Key Corridor Focal Intervention Areas: Instruments, Institutions and Infrastructure



Source: SADC Secretariat, 2009

- reduce costs and time.
- Corridor Infrastructure, to ensure adequate supply of capacity and reduce transport costs, road and railway rehabilitation, construction and maintenance
- Transport and Transit Facilitation, to improve efficiency through reduction of costs and time through policy, legal and regulatory simplification, harmonization and integration.
- Corridor Performance-Monitoring and Evaluation, to aid planning and performance improvement.
- Capacity Development, to improve capacity and efficiency at the institutional and staff levels at both policy and operational levels.

In East and Southern Africa, the states assisted by COMESA, EAC and SADC have been working together to transform their various corridors on both the Western and Eastern Seaboards to establish seamless corridor

⁶ SADC Infrastructure Development Status Report for Council and Summit, September, 2009.

infrastructure and trade facilitation mechanisms, largely under the auspices of the COMESA-EAC-SADC Tripartite Framework. These corridors have in turn, transformed the socio-economic status of LLDCs they are linked to them. The status of implementation of infrastructure along these corridors is outlined below.

- **Lobito Corridor** (anchored on the port of Lobito), supposedly linking it with Zambia, through the Democratic Republic of the Congo (DRC), but remains non-functional given outstanding rehabilitation work in the DRC. It will effectively serve Zambia once upgrades in the DRC are completed, or when Angola and Zambia are directly linked, as is planned.
 - **Walvis Bay – Ndola – Lubumbashi Corridor** (anchored on the port of Walvis Bay), linking it with Zambia, and has been developed to fairly seamless levels. The Trans Kalahari Corridor (also anchored on the port of Walvis Bay), linking it with Botswana, has attained commendable levels of performance, and is supported by a strong Corridor Secretariat;
 - **North-South Corridor**, linking the port of Durban with landlocked states of Botswana, Malawi, Zambia and Zimbabwe, and through to the DRC has been developed significantly as a pilot project in Southern Africa as a cross-border transit and transport value chain to address transport constraints in a sequenced and multimodal way. It comprises inter-related projects that address road infrastructure; road transport facilitation; management of railway systems and rail infrastructure; physical and procedural improvements at border crossings; port infrastructure; management of air transport and energy interconnectors. During the period under review, a number of projects have been fully prepared, through the support of the COMESA-EAC-SADC Tripartite framework, improving access to landlocked states, namely Palapye – Martis Drift and Nata – Pandamatenga (both in Botswana), Bulawayo – Beitbridge (in Zimbabwe), Kafue – Mazabuka (in Zambia). Good progress has been realised on the construction of the Kazungula Bridge One-Stop-Border-Post between Zambia and Zimbabwe and is due to be opened in 2019. In Zimbabwe, the dualization of the Harare – Mutare road section is ongoing and the rehabilitation of the Beitbridge – Chirundu road section has also commenced.
 - **The Manzini – Durban Corridor and Maseru – Durban Corridors** (both anchored on the Durban port), and linking it with the landlocked Kingdoms of Eswatini and Lesotho, and given their membership of the Southern African Customs Union, are well facilitated with efficient and seamless movement of goods, providing excellent access to the two countries imports and exports;
 - **The Limpopo Corridor** linking the port of Maputo to Zimbabwe and Zambia, the Beira Corridor, linking the port of Beira (in Mozambique) with landlocked Malawi, Zambia and Zimbabwe. Not much infrastructure rehabilitation has been undertaken on this corridor during the period under review.
 - **The Dar es Salaam Corridor** (anchored on the port of Dar es Salaam), linking it with landlocked Zambia and Malawi (and onward to DRC), whose operations are supported by a full time Secretariat, has made strides in promoting facilitated traffic flow in this corridor. Key initiatives include full preparation of the Serenje – Mpika road section rehabilitation project.
 - **The Lamu Corridor - The Lamu Port Southern Sudan-Ethiopia Transport (LAPSSSET) Corridor** project (Lamu Corridor) was initially conceived in 1975. In April 2013, the Government of Kenya announced the setting up of a government agency, the Lamu Port Southern Sudan Transport Development Authority to manage the project on behalf of the Kenyan government. The cost of the project is US \$29.24 billion. The aim of the project is to cut over-dependence on Kenya's main port of Mombasa as well as open up Kenya's largely under-developed northern frontier, through creation of a second transport corridor. It will serve landlocked Uganda, Burundi, Rwanda and South Sudan.
 - **The Ethiopia –Djibouti Corridor** (anchored on the port of Djibouti) linking it with landlocked Ethiopia and South Sudan, and also links with Sudan, has a new standard gauge electrified railway. For most of its imports, Ethiopia relies heavily on the Ethiopia-Djibouti road, with the trucking business on this corridor dominated by large Ethiopian trucking firms.
- The EAC strategic approach entails facilitation of road connection, adoption of common standards of infrastructure, promotion of PPPs, availing parking facilities along routes for dangerous goods, institute joint border management strategies, link the Northern Corridor with other corridors and strengthening of coordination of joint projects.
- **The Northern Corridor Transit and Transport**

Coordination Authority (NCTTCA) was established in 1985, with a mandate to coordinate joint planning, infrastructure development and trade facilitation programmes along the corridor in order to stimulate regional integration through economic and social development in the territories of the contracting parties. It is the busiest and most important transport route in East and Central Africa, servicing the Kenyan hinterland and the landlocked countries of Uganda, Rwanda, Burundi and South Sudan with the corridor anchored on the Mombasa port. It also links Northern Tanzania to the port of Mombasa. The Corridor has a permanent Secretariat which has put measures in place to provide seamless movement from Mombasa to the inland destinations.

The various corridors have developed Governance Instruments (or MOUs), set up cross border Institutions (some permanent, others ad hoc), as well as Infrastructure Action Plans for each corridor (the 3Is). Different corridors are at different stages of development of Instrument, Institutions and Infrastructure, within the framework of the 3Is. Corridors like the Maputo Development Corridor, Walvis Bay – Ndola – Lubumbashi Corridor, Dar es Salaam Corridor, Northern Corridor, Port Sudan are fairly advanced, and have put in place permanent Secretariats as well as sound infrastructure and are implementing fairly efficient trade facilitation measures. Corridors like Lobito, Malanje, Lamu, Djibouti and Limpopo are still in their infancy of development. To date MOUs have been signed by the Dar es Salaam, Nacala, Beira, Maputo, Trans Kalahari, Mtwara, Walvis Bay, Northern and Central Corridors, and are outstanding elsewhere.

ECOWAS passed a number of transport and trade facilitation pacts to address transport and trade facilitation measures, establishment and implementation of joint border posts program, transit check points, establishment of Corridor Management Committees, inter-state transportation regulations, conditions of cargo transit as well as axle load control measures. In addition, West Africa, through ECOWAS, has continued to support a number of priority corridors, which include the Praia – Dakar – Abidjan Corridor with a distance of 3 184 kilometers (Dakar – Abidjan) and extends to Praia in Cabo Verde maritime link, and is underpinned by a treaty signed in June 2017, currently up for ratification. The project will entail the development of a six-lane dual carriageway road and will be supported by the AfDB as a lead financier, supported by the ECOWAS Bank for Investment and

Development (EBID) and the West African Development Bank. The project also entails a maritime link across five other states (Gambia, Guinea-Bissau, Sierra Leone and Liberia).⁷

Through the collective efforts of the relevant states under ECOWAS, another corridor where efforts are ongoing to deliver robust infrastructure is the Abidjan – Lagos Corridor between Ivory Coast and Nigeria, linking these locations with Ghana, Benin and Togo, and has been growing fast. Regarding the maritime link, a feasibility study has already been completed for the Praia-Dakar maritime services and financial advisory services will be conducted to secure investments for implementation. Also a feasibility of shipping services and an assessment study of all major seaports along the corridor will be conducted to improve the capacity, efficiency of operations, security and multi-modalism of maritime transport in the region. It focuses on a number of pillars, namely, development of physical infrastructure; cross border transport logistics services; corridor town development and finally increased private investment and well-developed production value chains. In order to secure benefits, the corridor countries seek to meet certain conditions such as the establishment of a stable business environment, the elimination of restrictions on competition between firms from the corridor, and the implementation of trade facilitation measures to reduce barriers to trade. The region has abundant and diverse resources including both agricultural and mineral resources that represent great opportunities for trade. Trade, subsequently, plays a vital role in the regional economic performance and can potentially promote industrialization and thus induce a virtuous development cycle. One of the key objectives of the corridor is to transform a mere transport corridor into a fully integrated economic corridor, considering that a transport corridor only requires physical infrastructure, which is still being built and improved for the corridor between Cote d'Ivoire and Nigeria, an economic corridor is made of well-developed production and logistics chains. Whilst the above corridors are largely coastal in configuration, there are indirect benefits as the relevant economic activities cascade down to induced economic benefits for the adjoining landlocked states.

ECOWAS has taken the initiative to launch various corridor development related programmes in the last few years. However, progress reports on hand suggest that most of the ECOWAS projects are in their infancy, although robust institutional structures have put in place to scale up implementation of the various

⁷ ECOWAS strategizes development of the Praia-Dakar-Abidjan corridor, ECOWAS internet (<http://www.ecowas.int/ecowas-strategizes-development-of-the-praia-dakar-abidjan-corridor/>)

projects, displaying immense promise within the timeframe on the VPoA Decade. Furthermore, ECOWAS has the opportunity to adopt some of the good lessons learnt from the good strategies implemented in East and Southern Africa.

RECOMMENDATIONS

Whilst road development, rail and road rehabilitation has been undertaken in the region, the backlog on corridor infrastructure development remains high, and it all adds up into the infrastructure gap phenomenon. Following project preparation, a number of road sections in the North – South Corridor require rehabilitation in Botswana, Zimbabwe, and Zambia. The prepared road sections along the Dar es Salaam corridor requires rehabilitation. The states are in the process of mobilization of resources for the same. More still needs to be done if the corridor infrastructure is to be brought to the prescribed standards, like the Maputo Development Corridor. In the same vein, the North – South Corridor has both highly developed infrastructure on the one hand and dilapidated roads and rail infrastructure in other areas, which require urgent attention.

- It is critical for LLDCs supported by the transit states to put more effort into implementation of the priority infrastructure planned for the various corridors;
- Given the key bottlenecks of MOUs, LLDCs assisted by the RECs need to work towards facilitating drafting and finalization of the MOUs;
- The LLDCs need to take steps to utilize Innovative Funding for infrastructure given the financing deficit for infrastructure projects that have reached financial closure.
- Whilst the issues under review relate to LLDCs, it is critical to ensure that LLDCs engage transit states to ensure their facilitation and participation in development of connectivity programmes, as ultimately LLDCs need to connect to the ports in coastal states.
- It is critical that all corridors in Africa put in place mechanisms to monitor corridor performance in terms of turnaround times, transit times and port

performances as a basis to develop strategies to reduce both cost and transit periods into land locked countries. The Northern and Central Corridors in East Africa have made strides in this regard.

1.3. Road Network Development

TRANS AFRICAN HIGHWAYS (TAH) PROGRAMME

The bulk of movement of goods and persons in Africa is conveyed by road, and as such, roads play a pivotal role in providing access to and from landlocked states. Within the framework of PIDA, the African Union developed the Trans African Highway (TAH) Programme, whose objective is to enhance inter-state continental wide connectivity through the setting-up of a network of all-weather good quality roads. The roads provide direct routes between capital cities, provide connectivity to sea ports for landlocked nations and contribute to political, economic and social integration and cohesion of Africa.

The TAH network also assists in the facilitation of transportation between important areas of production and consumption, thereby serving as important resource corridors. The TAH is made of 10 projects as indicated in **Table 1.3** below:

The approach to implementation of the Trans African Highways is to implement projects on each TAH route which will close the current missing links. Besides implementation of the TAH, there are separate programmes to develop new roads as well as rehabilitate those sections of roads in designated corridors that are deemed to be in poor condition. The TAH has a total length of 54,120 km distributed along the corridors. However, it is characterized by missing links and poor maintenance in some key segments. The percentage of paved roads is still low in Africa where half of the LLDCs are located -it was estimated to be about 13% in 2015 if the North African countries are excluded. UN-OHRLLS calculated rail and paved road density (km) per unit of land area (km²) and Table 1.4 shows that African LLDCs lag behind both transit developing countries and the global average in terms of both road and rail densities. OHRLLS also estimated that, for the African LLDCs to reach the global average paved road and rail densities, they would need to

Table 1.3. Trans African Highways

Route Number	Route	Length (km)
TAH 1	Cairo – Dakar	8,640
TAH 2	Algiers – Lagos	4,500
TAH 3	Tripoli - Windhoek - Cape Town	9,610
TAH 4	Cairo - Gaborone - Cape Town	8,860
TAH 5	Dakar - N'Djamena	4,500
TAH 6	N'Djamena - Djibouti	4,220
TAH 7	Dakar – Lagos	4,010
TAH 8	Lagos – Mombasa	6,260
TAH 9	Beira – Lobito	3,520
TAH 10	Djibouti - Libreville - Bata	9,979

Source: NEPAD Agency PIDA Implementation Report, 2014

construct another 107,000 km of roads and 20,700km of railway, at a cost of about US\$ 0.23 trillion. This is beyond the capacity of many LLDCs and therefore calls for increase in support towards transport infrastructure development and maintenance to African LLDCs.

A number of roads along various corridors have been rehabilitated and include the Lusaka – Chirundu highway in Zambia, the roads along the Lobito corridor in Angola, linking with DRC and landlocked Zambia, Serenje – Nakonde road on the Dar es Salaam Corridor, dualization of the Harare – Mutare link in Zimbabwe and the rehabilitation of the Beitbridge – Chirundu Road, linking South Africa and Zambia

through Harare, Zimbabwe. Other ongoing upgrades include rehabilitation of links between Nata and Kasane in Botswana as part of the North South Corridor project, the Kafue Livingstone link, aimed at seamless movement of traffic into and out of Zambia and Botswana.

Other projects undertaken include weighbridges improvements and rationalization, port capacity expansion in Mombasa, Lamu in Kenya, Dar es Salaam, Mwambani and Bagamoyo in Tanzania, as well as one stop inspection stations (OSIS) along the Central Corridor and the establishment and operationalization of One-Stop Boarder Posts (OSBPs) at border interfaces

Table 1.4. Paved road and railway density of landlocked developing countries

Region	Paved road density (km per 1000 KM Square)	Rail Density per KM Square
East and Southern Africa	34.7	5.7
West and Central Africa	3.5	2.3
All LLDCs	19.1	3.6
Transit developing countries	191.4	8.6
Global	151.0	9.5

Source: UN-OHRLLS, 2018

within EAC and with other adjoining RECs. The implementation of some of the foregoing programmes has reduced the transit traffic travel times between the ports of Mombasa and Dar es Salaam to the LLDCs by up to 60% on average.

In the horn of Africa, road development is in progress on the Djibouti – Addis Ababa – Juba Corridor, the Lamu Corridor, the Central Corridor and Northern Corridor to enhance connectivity in East Africa. As part of the Trans African Highways, work is ongoing along the Dakar; N'Djamena and Djibouti sections to enhance

east west connectivity through land locked countries Mali – Niger – Chad - Central African Republic – South Sudan.

As alluded to earlier, in relation to road infrastructure development in West Africa, is the Praia-Dakar-Abidjan-Lagos Corridor, which is 1080 km in length, which is part of the Trans African Highways No. 7, and seeks to connect to Mombasa through Yaounde, Bangui, Kisangani, Kampala and Nairobi in East Africa through Central Africa. Part of this corridor is also referred to as the Trans-Sahelan Highway stretching

over 4 400 kilometers, of which 50% of the network has been paved. Paving of the missing link between Salo (in CAR) and Queso in DRC would benefit LLDCs like Chad in terms of access to the coast and other transit countries. However, delays to attention on the missing links has been attributed to the relevant states not according the corridor the same level of priority. The project seeks to address prevailing challenges that include poor market connectivity, physical and non-physical barriers to trade, high transport costs and cumbersome border procedures. Ultimately, SMART Corridor Initiatives will be mainstreamed and will entail harmonized customs transit systems; Integrated Border Management Systems, Authorized Economic Operator (AEOs), Single Windows, etc. The corridor largely passes through coastal states except Uganda, but nonetheless is expected to unlock opportunities for LLDCs. An inter-state agency has been established to coordinate the project, and currently various studies are ongoing as part of the project preparatory process.

The road network is critical for Africa because it is the primary mode of transport for both freight and passengers across the continent. In view of this, most countries have undertaken road sector management reforms addressing financing maintenance, rehabilitation and construction of new roads. Most states have established dedicated Road Funds and Road Authorities/Development Agencies to undertake maintenance, and development of roads for both the regional and national road networks. The main source of funds for road maintenance has been the fuel levy, access fees and toll gates, depending on the country, while funding for new construction and rehabilitation has been through government capital budget allocations, borrowing from development banks and funds from development partners provided either as loans or grants. The issue of transparency in the utilization of funds collected has been central to the road sector reform programme.

Road maintenance has also been performed by the private sector, for example, South Africa, Botswana and Zambia have adopted this option through open public tender process. Performance-based road contracts for road maintenance is being implemented in these countries and the feedback of these experiences is encouraging. In Zimbabwe, road maintenance is operated by the government through the national road agency. However, there are issues relating to lack of equipment and funding. In the Katanga Region in the DRC, road maintenance is undertaken partially by the government and some by private contractors.

Southern Africa has a well-developed regional road

network that is in relatively good condition and almost all corridors are paved, with corridors running both east – west and north south. Surface transport in Southern Africa is the cheapest in Africa, but still more expensive than other developing countries. The trucking industry in southern Africa remains competitive though it has lower profit margins than West and Central Africa. The overall times and costs of moving goods along Southern Africa's key trade routes is time consuming and expensive.

RECOMMENDATIONS

Given the slow growth of road network development in Africa, economic development and the cost of doing business remain compromised, more so for landlocked LLDCs that are remotely connected to the sea. States need to scale up road project development through mobilization of resources, enhance maintenance activities and create an environment of tariff migration aimed at full cost recoveries from road users. The biggest impediment to development of TAHs is attributed to missing links in some countries, and on this basis, it is critical that with the facilitation of AU/AUDA and the RECs, states enter into pacts to close missing links simultaneously, given the tendency to accord different levels of priority to the same projects. There is need for the African Union and AUDA to strengthen the investment drive for Trans African Highways, which are key vehicles for continental interconnection and connectivity of LLDCs.

1.4. Railways Network and Connectivity Development and Maintenance

Railway transport has desirable modal advantages of being a low-cost bulk carrier, relatively efficient in fuel consumption, less gas emission, low external costs and better safety record compared to other surface transport modes. In the late nineties, the railways in Southern Africa established the Southern African Railways Conference, as a platform to foster coordination of different facets in railways, given that South Africa was then not part of the Southern African Development Community. The railways recognized the importance of cooperation and coordination of international freight train services in order to provide seamless movement of rail cargo across borders and the entire region. They also created committees to coordinate infrastructure standards, regional connectivity plans and optimization of rolling stock across the region based on cross border working and deployment of equipment like wagons, locomotives and coaches for passenger traffic from contiguous

railways, based on regional interline agreements. By then, the railways in Southern Africa enjoyed and still remain the most integrated network in Africa, although some links had been destroyed due to civil strife in Angola and Mozambique, most of which have since been rehabilitated.

At a micro workshop of the Southern African Railways Chief Executives held in Swaziland in April, 1995, a decision was taken to establish the Southern African Railways Association (SARA) as a body mandated to coordinate railway affairs in the region, as well as provide a lobby platform to not only improve the image of railways, but also collectively solicit regional governments' commitment to support the railways financially for financial viability.⁸ Following the establishment of SARA, the push for effective connectivity of railways, joint operations including provision of missing links in Angola and Mozambique gathered immense momentum. The condition of the SADC rail track is depicted as good (Transnet Freight Rail, Beitbridge Bulawayo Railway, Swaziland Railway, Botswana Railways, Trans Namib Holdings Limited); good to fair (National Railways of Zimbabwe), fair (Zambia Railways Limited, Mozambique Ports and Railways and Tanzania Zambia Railways) and poor (Congolese National Railways).⁹

At their meeting held in Bahir Dar, Ethiopia, in February, 2016, COMESA Infrastructure Ministers resolved to establish an association for railways in COMESA, COMESA Railways Association (COMRA), whose mandate would develop harmonized transport policy; technical standards for rail infrastructure and operating equipment; international train operations and logistics; costing and pricing of railway services; cargo tracking systems; railway safety, security and environmental issues; foster capacity building in railways and strengthen railways information services. The development of a Draft Constitution and a strategic plan would be the point of departure for this exercise. COMRA would take on board the existence of SARA, some of whose members would potentially become members of COMRA.¹⁰

The continent has continued to develop new railway infrastructure projects as well as upgrade existing links. The differences in rail gauges between East and Southern Africa remains an issue of concern, especially

in terms of exchange of cargo wagons, necessitating trans-shipment of cargo from the Cape Gauge in Southern Africa to the broad gauge in East Africa and vice versa, resulting in reduced inter-rail movement of goods.

Southern Africa has seen the implementation of rehabilitation of the railways in Angola anchored on the ports of Namibe, Lobito and Luanda in the last decade, as well as railways in Mozambique, anchored on the ports of Beira (Sena Line) and Nacala linking them directly with landlocked states of Zimbabwe and Malawi. That notwithstanding, the railways in Southern Africa continue to struggle attracting traffic on a sustainable basis given the lengthy turn-around time of rail traffic. Following an assessment of the railways in Southern Africa, which identified poor rail track in the DRC, Zambia and Zimbabwe, a programme to revitalize these railways has been launched by the NEPAD Agency, and seeks to address the rail condition, rail operations and governance of these railways on a sustainable basis.¹¹

Plans are also at an advanced stage to construct a 150km new railway line linking Eswatini and South Africa through the North West at an estimated cost of R18billion. The joint inter-railway strategic project between Transnet Freight Rail of South Africa and Eswatini Railway is intended to create additional railway capacity between the two countries to support modal shift from road to rail, improve integration of over-border logistics between the two companies and promote economic development. The project will be funded through Public Private Partnerships (PPP).

Through Article 86 (1) of the COMESA Treaty, Member States agreed to establish efficient and coordinated railway services to interlink Member States and construct required additional links. In this regard, various rail development projects have taken place in East Africa and the Horn of Africa.

First, Kenya completed the first phase of a single-track standard gauge railway (SGR) between Mombasa and Nairobi with a route length of 472km and a total length of 609km at an estimated cost of \$3.8billion under the LAPSET Project. The 25-tonne axle load railway line has capacity to move 22million tonnes of cargo annually at speeds ranging from 80-100km/hr to 120km/hr for

⁸ Outcomes of the SADC Railways Chief Executive Officers Micro-workshop on Intermodal Competition in SADC, April, 1995

⁹ SARA Corridor Management Report, October, 2017.

¹⁰ Record of Meeting of COMESA Infrastructure Ministers, Bahir Dar, Ethiopia, February, 2016.

¹¹ The COMESA-EAC-SADC Tripartite Railway Revitalisation Programme, 2011

freight and passengers respectively. The line was fully operational by the 1st of June 2017. The SGR line was funded by the China Exim Bank and was constructed by the China Road and Bridge Corporation. The next phases of the project will extend the standard gauge railway to Ethiopia, Uganda and South Sudan thus providing vital regional links for the LLDCs like Burundi, Rwanda and Uganda, ultimately and promoting industrial growth and socio-economic development.¹²

Similarly, Ethiopia completed construction of a 750km Addis Ababa - Djibouti standard gauge railway line which is already operational. The railway line which includes a 100km double line between Addis Ababa and Adama in Ethiopia was constructed at a cost of US\$3.77 billion funded by China. The line will eventually connect to Kenya, South Sudan and Sudan. Ethiopia and Djibouti have embarked on staff training. A railway institute will be established in Ethiopia to cater for other African countries as well. Meanwhile, Ethiopia and Sudan signed a bilateral agreement on the construction of a Standard Gauge Railway between the two countries whose feasibility study will be funded by the African Development Bank (AfDB). It is expected that the Djibouti - Addis Ababa transit time will be reduced from three to four days to a mere 12 hours, and at the same time, replace 200 road trucks per day.

Looking into the future, the Standard Gauge Railway being constructed to connect Mombasa with Kenya's hinterland, Uganda, Rwanda, South Sudan and Eastern DRC is expected to have significant regional impact. It is projected that travel time will reduce between Mombasa and Nairobi from 12 hours to four and freight trains will carry 25 million tonnes a year. Transport costs are expected to be reduced from \$0.20 to \$0.08 per ton per kilometre. Before this project, rail transport for Kenyan cargo from the ports into the hinterland accounted for a mere 5% of total. There is an expectation that by 2025, up to 40% of the cargo traffic will be moved on rail. As per the plans in East Africa, the SGR will be extended to link Kigali and Kampala to the Port of Mombasa, and to become the mode of transport of choice for the two countries' trade. Further plans entail the SGR branch to link Juba to Mombasa and is expected to replicate the benefits as long as traffic switches from road to rail. Other savings are expected from reduction in road transport, damage to roads, impact of congestion and its associated high costs. Already, the SGR has reduced passenger journey

time between Mombasa and Nairobi to 4 hours and for freight traffic from 15 hours to 4. Transit time for through traffic to other destinations is projected at 1 day which has not been possible with road transport. There are great expectations around this regional project in terms of cross-border traffic impacts.

On the other hand, the condition of the railway track in Southern Africa continued to deteriorate, owing to poor management of railways and deteriorating cash floor, resulting in most rail traffic being moved by road, a situation that remains a challenge to this day. The movement of bulk traffic from road to rail has also had a negative impact on the condition of road pavements in Southern Africa. Whilst the railway network is adequately integrated to move imports and exports into and out of the LLDCs (Botswana, Eswatini, Malawi, Zambia and Zimbabwe), it is estimated that more than 90% of regional traffic is currently moving by road, although the railways continue to make concerted efforts to take steps to bring back more traffic to the railways.¹³ A number of railway rehabilitation programmes have been undertaken, and these include the Mozatize - Nkhaya - Nayuchi linking the Nacala corridor to the Beira corridor, and the Cuamba - Lichinga section being upgraded, and these initiatives will provide relief to landlocked Malawi. There is ongoing rehabilitation of the railways infrastructure in Zimbabwe under the North - South Corridor Railway Revitalization Programme. The rehabilitation of the Goba railway line linking Maputo and landlocked Eswatini has also been completed.¹⁴

Similarly, a group of West African countries and mines came together to support the development of an ongoing extensive rail project designed to boost trade in the region. They sunk significant investment into the track which will be 3,000 km long when completed and connects Benin, Burkina Faso, Côte d'Ivoire, Ghana, Niger, Nigeria and Togo. The project adds new tracks to existing ones which are being upgraded. It will benefit landlocked countries such as Niger, which face constant transport problems and largely rely on seaports in neighbouring countries and road infrastructure to carry its imports and exports. The project responds to and addresses the need for better infrastructure and reliable transport to transport minerals between West African countries as well as from the mines to major ports.¹⁵

¹² Record of COMESA Infrastructure Meeting, Bahir Dar, Ethiopia, February, 2017

¹³ Trademark Southern Africa Railway Condition Assessment Report, 2008

¹⁴ Record of the Committee of SADC Ministers responsible for Transport, 2017

¹⁵ Final Report on Regional Trade Policy Guidelines for Cross-Border Infrastructure, African Capacity Building Foundation, Dr. B Ndlovu, 2018

With its 24 programmes/projects, the PIDA-PAP objective in transport sector is to link the major production and consumption centres, provide connectivity among the major cities. Implementation on the ground has not started yet but for a number of projects and programmes preparatory studies have been undertaken.

Railways have had their fair share of maintenance neglect, giving rise to traffic being diverted to road. The regional governments have however recognized the urgency of improving rail infrastructure in order to reduce the trend. LLDCS have for a long time relied on rail transport as a preferred mode for imports and exports. Assisted by the NEPAD Agency, there is a new push to bring life back into railways through the Railway Revitalization Programme (RRP), which entails rehabilitation of rail infrastructure as well as put in place appropriate sustainable governance arrangements and practices in railways. The RRP seeks to verify the condition of the track of each national railway and estimate how much it would cost to rehabilitate the track to allow trains to operate safely at speeds of at least 60km per hour. From this information, consultants will prepare an implementation programme, including a legal and operational framework, that will allow national railways making up the regional network to cooperate so that it can be operated as a single network, much in the same way that the regional road network operates as a single regional network with harmonized axle loads, transit systems, etc. However, the process is a chicken and egg scenario where the railways need to enhance their revenues for the upgrading of infrastructure on the one hand, but need on the other hand to first upgrade infrastructure before they can accrue revenues. Given the stiff competition with road, railways will in the short to medium term continue to struggle to attract traffic to the sector. It will be necessary for the states to bail out the railways in order for realistic maintenance to be undertaken.

Southern Africa has an extensive regionally integrated railway system, with national systems forming a network centered on ports on both the eastern and western sea-boards. However, rail traffic encounters long delays as it moves across borders due to lack of coordination between national rail systems leading to lengthy locomotive interchange periods and has resulted in diversion of freight on to the road network.

RECOMMENDATIONS

Railways continue to suffer dilapidation due to poor maintenance. Above all, the pace of provision of railway connectivity remains unacceptably low. It is key for

states to re-double their efforts in promoting railway network development and putting in place sustainable maintenance measures to make railway competitive against the road sector. Specific attention needs to be paid to addressing gaps around governance and accountability in railways. More importantly, most railways lack technical capacity to manage their projects and programmes, and as such, a robust capacity building programme facilitated by the regional bodies and railway associations would go a long way in addressing prevailing capacity gaps.

1.5. Port and Maritime Development and Maintenance

Maritime transport handles over 80 per cent of the volume of global trade and therefore it is important to understand the reasons for differences in costs for international transportation with a view to initiate and adopt appropriate policy interventions. The United Nations Conference on Trade and Development (UNCTAD) and the Sub-Saharan Africa Transport Sector Programme (SSATP) have developed sets of port performance indicators (PPIs), aimed at benchmarking the operations at ports as well as provide statistics on performance as a management performance tool. Some of the indicators include ship turn-around time, voyage productivity, container dwell time, reefer dwell time, container traffic throughput, truck visit time, number of gate moves, ship arrival rate, waiting time, tonnage per ship and gang productivity. The port authorities have been encouraged to share information with stakeholders, constitute local and national committees to explore opportunities for performance improvement, provide adequate training on IT systems and work closely with corridors, inland and high seas stakeholders to promote performance and efficiency.

Most ports have developed IT systems for operations, which provide a basis for productivity analysis. However, port IT systems differ a lot between ports, some ports work have fragmented systems and others have integrated systems. In some cases, there are challenges with outsourced IT systems due to lack of skills transfer and limited service from software providers.

The port authorities often do not have a 'performance management culture', and as a consequence, PPIs are generally not regarded as necessary to develop and monitor corporate/port development strategies. This also explains the limited attention and resources in terms of both IT and staff, to adopt PPIs. As a result, there are long periods, up to several months, before

data is processed and PPIs are made available. In essence, PPIs are not often collected to inform stakeholders.

Development and maintenance of physical port infrastructure is important for the provision of necessary capacity to cater for both coastal and landlocked countries. Port authorities in Africa have therefore embarked on port expansion initiatives to ensure that this objective is met; and ports infrastructure continues to be rehabilitated across the continent and some of the initiatives include, among others, the following:

In Djibouti ports infrastructure development included four new specialized ports at Doraleh, Tadjourah, Damejog and Ghoubetat at an estimated cost of over \$800million. Doraleh will have facilities to handle containers, general cargo, bulk cargo and cars with an annual capacity of 9million tonnes. Tadjourah will handle potash exports with an annual capacity of 4 million tonnes; and Damejog is a dedicated livestock export facility with an annual capacity of 10million head. Ghoubet is a dedicated salt export facility with an annual capacity of 5million tonnes.

With regard to the Lamu Port, Kenya is constructing a 32 berths deep sea port at Lamu at an estimated cost of \$5billion under the phased LAPSSSET Project, comprising a Short-Term Plan for 3 Berths to be constructed by 2020 at an estimated cost of \$689 million, and Medium-Term Plan which entails 4-10 berths to be constructed between 2017 and 2025 and the Long-Term Plan which involves 11-20 berths to be constructed by 2040 and 21-32 Berths to be constructed after 2040 and to date 3 berths have been completed. These developments at Djibouti and Lamu ports will increase port capacity and support smooth flow of trade through the Djibouti, Moyale and Juba Corridors, and appropriate trade and transit facilitation measures will be mainstreamed to ensure smooth flow of trade by reducing delays and cost of doing business.

In terms of performance, the throughput of ports in the COMESA region showed a positive trend of containers handled, but compared to other ports at global level, they are very far down the ranks with only two featuring in the top hundred container ports in the world, namely the Egyptian Port Said on position 37 and Alexandria on 88. The Alexandria Port also handles traffic for landlocked South Sudan, Chad and Central

Africa Republic. This makes Egypt and Sudan transit countries where COMESA Trade and Transit Transport Facilitation Instruments like Carrier License, COMESA Transit Plates, Regional Customs Transit Guarantee (RCTG), Yellow Card, COMESA Virtual Trade Facilitation System (CVTFS) and Harmonized Road User Charges could be applied to ensure smooth flow of trade at relatively low cost.

There is also a proposal for the establishment of a Navigational Route between Lake Victoria and the Mediterranean Sea, named VICMED, which falls under the African Union Presidential Infrastructure Champion Initiative (PICl) with Egypt as the Champion. The project seeks to establish a development corridor anchored on the navigational route along the Nile River from Lake Victoria to the Mediterranean Sea. It involves 8 COMESA Member States namely, Sudan, DR Congo, Kenya, Egypt, and LLDCs Ethiopia, Burundi, Rwanda, South Sudan and Uganda as well as a non-COMESA state of Tanzania.

The benefits of the project include deepening regional integration, providing an alternative relatively cheaper and environmentally friendly transport mode, shorter and direct transport route between Western Europe and, Eastern and Central Africa. The project will also contribute to employment and poverty reduction in the riparian States. There are also plans to upgrade the Lake Tanganyika ports for Burundi, DRC, Tanzania and Zambia. A new multi-purpose terminal, the Matadi Gateway Terminal, was recently completed and opened in June 2017.¹⁶

In Southern Africa rehabilitation of port terminals has been undertaken at the Maputo and Lobito Ports, which serve landlocked Botswana, Zambia, Malawi and Eswatini. A new port terminal is under construction at the port of Walvis Bay, and will increase capacity to serve landlocked Botswana, Zambia and Zimbabwe.¹⁷

The Ports Management Association of Eastern and Southern Africa (PMAESA) whose membership includes ports in East and Southern Africa and the Ports Management Association of West and Central Africa (PMAWCA) entails membership of ports in West and Central Africa. The two Associations continue to coordinate ports operational standards and procedures and provides a forum for exchange of practices amongst the port authorities. They also provide capacity building for various categories of

¹⁶ Record of the COMESA Infrastructure Ministers responsible for Transport and Communication, Information Technology and Energy, 2017.

¹⁷ Record of the Committee of SADC Ministers Responsible for Transport, 2017

staff in the different disciplines. Amongst the issues the Association has coordinated include Container Terminals Concession Guidelines, to improve port operation efficiency and innovation, raise funds for investment, facilitate port growth and development as well as revenue and expenditure optimization. PMAESA and PMACWA signed MOUs with RECs to facilitate joint efforts in port development, operation and efficiency improvement. Whilst ports in southern Africa are more advanced than ports in other parts of Africa, they are less efficient when compared to global benchmarks, and port charges are relatively high. Key ports in West Africa include the ports of Abidjan, Takoradi, Tema, Cotonou, Libreville, Luanda and Monrovia, and are a major point of export and exit for LLDCs in those regions.

The Africa region has also made some concerted efforts towards the provision of inland depots, which allow goods to be moved upcountry in bond for customs clearance close to the customers and shippers which derives the advantage of reducing port congestion and providing easy access to inland logistics stakeholders. Inland dry ports and container depots are geared to provide facilities such as transshipment, distribution, consolidation, storage, customs services, and possibly equipment maintenance. Some of the dry ports are close to the sea ports, but most are way inland in locations like Isaka in Tanzania; Masaka Inland Container Depot, Matsapha Dry Port in Eswatini (to be expanded in three phases), Tororo Inland Port in Uganda, Chipata in Zambia, Mutare Dry Port in Zimbabwe. The ports are managed by state agencies or are sometimes contracted out to the private sector. For example, in both Burundi and Rwanda, customs clearance is not performed at the border but inland. In Rwanda, state-owned company Magasins Generaux du Rwanda (Magerwa) runs four small ICDs in Kigali, but in 2008 a private company, SDV Transami Rwanda, was allowed to open one as well. In Burundi, customs clearance is performed at a small ICD in Bujumbura.¹⁸

A number of LLDCs are in the process of constructing inland dry ports, and these include Mekelle, Woreta, Kambolcha and Hawassa in Ethiopia, and these ports will be linked to the SGR network.¹⁹

RECOMMENDATIONS

Port performance has been mediocre, to the detriment

of LLDCs. Ports have failed to meet the accepted norms of performance based on internationally agreed Port Performance Indicators (PPIs). Reports suggest that most ports have stopped applying port performance indicators (PPIs), which are critical for benchmarking and performance improvement. Whilst the ports associations could facilitate this aspect, the onus is on individual ports to take the initiative. Implementation of performance indicators-based peer review reports provide a platform for consensus on port performance improvement. Concerted efforts are required to monitor port performance standards in order to minimize cargo detention times at these ports. Furthermore, investment in ports remains critical, and the pattern over the years has shown that privatization of port terminals has significantly improved port efficiency, hence governments are encouraged to invite the private sector to be a key partner in both ports investment and operations.

1.6. Air Transport Network Development

The Single African Air Transport Market (SAATM) was launched in 2018. The AU Assembly, at its 24th Ordinary Session in January 2015, adopted the Declaration on implementation of the Yamoussoukro Decision towards establishment of a Single African Air Transport Market, as well as the Solemn Commitment made by eleven (11) Champion States towards advancing concrete and unconditional implementation of the Yamoussoukro Decision and the Single African Air Transport Market. Twenty-three Member States are currently implementing or have implemented the Yamoussoukro Decision, and includes six LLDCs, namely, Botswana, Eswatini, Ethiopia, Mali, Rwanda and Zimbabwe.

Air transport offers enhanced access to LLDCs given that it is not subjected to borders and other impediments as is in the case of surface transport modes, and in this regard brings relief to the LLDCs. However, air transport is expensive and is suited for high value goods and persons with higher disposable incomes. Air transport offers LLDCs an opportunity to unlock their landlockedness, and examples of this is Ethiopia, with the largest network in Africa, and Rwanda, an up and coming airline, dubbed “the Airline of the Future”. The air transport market liberalisation adopted by the African Union will culminate in removal

¹⁸ Africa Regional Report on Improving Transit Cooperation, Trade and Trade facilitation for the Benefit of Land Locked Developing Countries: Current and Future Implications, UN-OHROLLS, 2017

¹⁹ Ethiopian Shipping and Logistics Enterprises, 2019.

of market restrictions, with greater freedoms that will see increased air traffic, fare reduction, increased frequencies and greater connectivity across Africa and into the LLDCs. Ethiopian, Kenya Airways and Rwandair have been granted fifth freedom rights in East and Southern Africa.

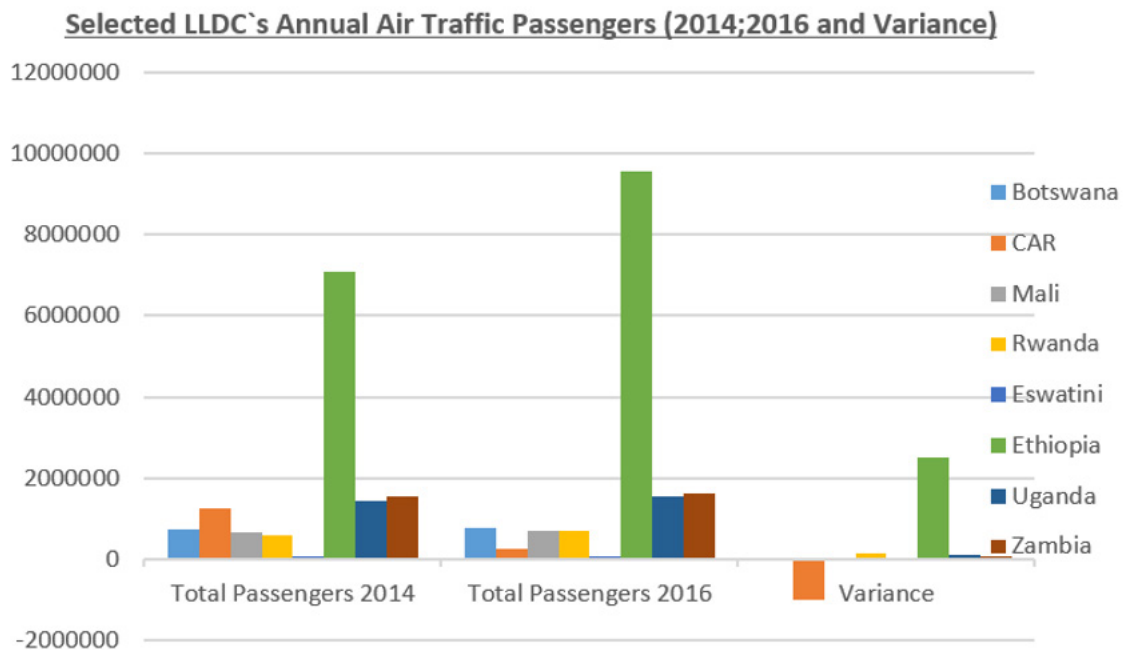
The Air Transport Market in Southern Africa is strong, but remains dominated by one carrier, South African Airways. However, East African carriers have also taken the challenge to expand into Africa and the rest of the world. These include Ethiopian which has taken the lead in penetrating Africa followed by Kenya Airways, with Rwandair on its heels as it continues to grow routes into Africa.

Regarding registered air carrier departures from the African LLDCs, it has increased by 15.6 percent between 2014 and 2017, from 116,005 to 134,115. The African LLDCs' air freight and passenger volumes were

around 62% and 46% of the total LLDCs' freight and passenger volumes in 2016. Ethiopian Airlines carried the largest portion of freight which accounts for 95% of the total African LLDCs air freight. The challenges faced by LLDCs' air transport industry include high scale of investment that is needed for infrastructure development and maintenance, rehabilitation and replacement of aged fleet, and upgrading of airports and terminals, poor airport infrastructures, lack of physical and human resources and new technologies, limited connectivity, and lack of transit facilities.

Figure 1.2 below depicts the air traffic passenger trend between 2014 and 2016²⁰ for selected LLDCs, and suggests that in general, LLDCs enjoyed reasonable growth over the period under review, with Ethiopia enjoying phenomenal growth, followed by Rwanda. However, CAR experienced negative growth presumably owing to security related challenges in the country. Data available for a few LLDCs also shows

FIGURE 1.2 Selected LLDCS Annual Air Traffic Passenger Trends (2014; 2016 and Variances)



Source: Airports Council International (ACI), 2019

²⁰ Only data for selected countries is available

that the number of aircraft movements and cargo throughput remains on the rise. Air transport therefore plays a vital role in promoting connectivity of LLDCs.

1.7. Policy, Regulatory and Legislative Frameworks for Infrastructure and Challenges to Implementation of Infrastructure projects and maintenance

In order to create an enabling environment for investment, business performance and policy predictability, the RECs have developed harmonised technical standards, policy, regulatory and legislative frameworks for infrastructure, as part of the continent's efforts to ensure that all states adopt a harmonised policy framework. Once these frameworks have been adopted, each state is required to develop and commit to a road map for domestication of the agreed provisions, whose implementation at domestic level is subject to regular collective review.

At institutional level, at the level of the RECs, ICT and Energy regulatory associations have been established, to assist states with development, adoption and domestication of harmonised regulatory frameworks. In turn, states are required to establish national energy and ICT regulators to serve the enforcement and domestication of agreed harmonised regulatory frameworks and guidelines. At the continental level, an apex regulatory body, the African Forum for Utility Regulators (AFUR) has also been formed, to oversee the implementation of regulatory frameworks at that level.

The agreed provisions also entail commitments to facilitate access to energy, corridors and ICT connectivity for LLDCs. In respect of ICTs, commitment for access by landlocked countries has been made at the level of the International Telecommunications Union (ITU). In order to ensure smooth implementation of the harmonized technical standards, policy, regulatory and legislative frameworks, national and regional regulatory bodies have been established in the regional blocs, to oversee compliance by states on the domestication process. States have also made efforts to reduce red tape for investors through the establishment of One Stop Investment Centres in their respective countries.

Given the poor progress that has been made with the implementation of projects as reported in the foregoing reports, namely, the SADC RIDMP, the COMESA TCS & IP, the Tripartite Infrastructure Projects Portfolio and the PIDA programme, this largely suggests a huge

infrastructure backlog obtaining in Africa. The slow pace of deployment of infrastructure has been way below the targets at both the national and regional levels and constitutes a concern to all stakeholders. NEPAD was established to, among other things, scale up development and roll out of infrastructure across Africa and the projects were classified under the NEPAD Short, Medium and Long-Term Action Plans on Infrastructure. That notwithstanding, delivery of infrastructure across the continent, and more specifically the projects identified by NEPAD under PIDA, remained relatively slow. A review of the challenges with delivery of infrastructure by NEPAD identified the following constraints:

- Lack of bankable projects in the region;
- Limited capacity at the level of the RECs, member States, NEPAD and African Union to coordinate and guide the implementation of projects with various partners;
- Limited funding for infrastructure, then implemented through grants and loans to the states;
- Low participation of the private sector in infrastructure funding;
- National focus of projects instead of a regional approach and thus failure to attract funding due to lack of viability;
- Lack of a clear implementation framework and definition of accountability for the projects as a multiplicity of players are involved; AU, NEPAD, UNECA, AfDB, the RECs and member States;
- Lack of an enabling environment for investment in infrastructure by the private sector from a policy, legal and regulatory framework;
- Lack of strengthened capacity to negotiate and implement projects at the levels of member states, RECs and NEPAD to effectively implement infrastructure and migrate from low to high absorption;
- Absence of a gradual process/ mechanism of instituting cost reflective tariffs to increase delivery of infrastructure.

Progress is being made regarding infrastructure expansion and upgrading in African LLDCs. However, insufficient quantity of physical infrastructure continues to obtain, as well as high prices, continue to hinder the development of accessible and predictable solutions in the transport, energy and ICT sectors.

One of the key challenges that Africa continues to confront, is the availability of a sustainable plan for infrastructure maintenance, as newly commissioned

infrastructure often suffers from dilapidation due to lack of provision for proper maintenance. Maintenance funding is generally drawn from fiscal funding mechanisms, and owing to the huge social demands, the pressure on the fiscus continues to grow, with states failing to provide for maintenance of infrastructure. Most infrastructure is accessible to the public as public goods with little, if any, cost recovery mechanisms.

Efforts continue to be made to cater and provide for maintenance by most state-owned enterprises, but can hardly meet the prescribed national, regional and international maintenance standards and benchmarks. It is however sad to note that a large number of projects on the national and regional plans entail rehabilitation of infrastructure have been neglected for decades.

1.8. Financing of the Infrastructure Gap in Africa

One of the biggest impediments to implementation of infrastructure is the scarcity of funding. Yet arguments continue to be made that funding for infrastructure is available, the key bottleneck is lack of bankable projects. Given that funding is finite, the discourse regarding financing infrastructure development has focused on exploring innovative ways of funding the projects. Southern Africa commissioned a study to explore innovative ways of funding its regional integration agenda, including infrastructure development.²¹

A number of funding mechanisms have been identified as both current practice and potential options for the future.

These mechanisms included Export and Import levies; Tourism levies; Financial Transaction Tax; Regional Lottery; Philanthropy and Regional Special Events. Whilst these mechanisms were adopted by the region in principle, it was agreed that it was up to each country to decide on which mechanisms to apply, based on what it termed the “A La Carte Approach” as long as each country was able to meet its contributions to the regional budget.

PERSPECTIVES ON INFRASTRUCTURE FINANCING IN AFRICA

Infrastructure financing is pivotal to the roll out of infrastructure in LLDCs and requires preparation and structuring of projects in order to enhance uptake on

financing. Most countries have adopted innovative ways of financing infrastructure, which include sovereign loans (mostly at middle income countries rates), grants, Development Finance Institutions (DFIs), Public Private Partnerships and other domestic mobilization options. The Ruzizi III Hydropower project (DRC, Rwanda and Burundi), a PIDA priority project, is a key regional PPP power project in Africa, expected to leverage more than 50% commercial financing (debt and equity), with majority private ownership, and offers valuable lessons on how to structure and attract commercial funding and leading to timely implementation. The Grand Ethiopian Renaissance Dam (6000 MW almost 70% complete) and Gibe III (18000 MW) Projects in Ethiopia have been successfully funded through domestic resources.²²

Most RECs have developed Resource Mobilization Strategies aimed at enhancing capacity of the states to finance infrastructure and other developmental projects. In order to enhance sustainability of infrastructure, LLDCs have had to scale up their capacity for maintenance of infrastructure, underpinned by full cost recovery measures under the user pays principle, introduction of road funds whose incomes are directed solely at road maintenance, underpinned by good governance practices in State Owned Enterprises (SOEs). A recent survey on the status of implementation of infrastructure in SADC showed that the level of private sector participation in infrastructure remained below expectations, with only 6 projects (one transport, 4 energy and 1 water) attracting the private sector. The study attributed lack of implementation of cost reflective tariffs as a key impediment to private sector investment in infrastructure.²³

In order to effectively and timeously implement projects, it is critical that they be prioritized at both national and regional levels. In addition, the project owners must be seen to have allocated some form of resources to the project for preparation and even early stage preparation, as a way of demonstrating commitment. Should the project be transboundary in nature, it is critical that instruments that underpin the project be in place by way of Memorandum of Understanding with other participating states.

Financing of infrastructure development remains central to the success of the projects, much as international experience has demonstrated that the surest way of addressing the infrastructure backlog

²¹ Report on Innovative Ways of Financing the SADC Regional Integration Programme, Southern Africa Trust, May, 2018.

²² NEPAD Agency PIDA PAP Report, 2018

²³ SADC Regional Infrastructure Development Master Plan, Short Term Action Plan Assessment Report, 2018.

is through the utilization of locally sourced finance. In this regard, it is necessary to create ring fenced local funding for such purposes, to augment external funding resources. In this regard, the creation of the COMESA Fund and the SADC Regional Development Fund are a step in the right direction in attempts to mobilize regional and domestic resources, although more funding vehicles need to be established.

There have been many occasions when implementation of a transboundary project cannot proceed on account of some states not having secured funds for the project. In order to make a start, most regions have adopted the variable geometry approach, whereby states that are ready can proceed and the rest follow once resources have been secured, and this process should be adopted to unlock implementation of projects, but also assist states with limited capacity to leverage funding. Examples include the ZTK, ZIZABONA where projects were implemented on a phased basis, depending on the timing on securing capital investment projects by participating countries. Similarly, regarding the rehabilitation of the Lobito Corridor, Angola implemented its portion ahead of the DRC, which was still trying to secure funding for the same.

A key impediment to investment in infrastructure remains the contentious issue of sub-economic tariffs. Regional statutes (for example protocols) provide for gradual migration to cost reflective tariffs. In the power sector, power tariffs have been linked to power purchase agreements. It is necessary that Africa moves to full cost recovery, with subsidy frameworks be agreed to cushion the poor through state funding on a state by state basis.

The conditions for investment vary from country to country, sometimes region to region, depending on the enabling environment, as dictated by the policy, regulatory and legislative frameworks. In order to be competitive and attract investors, it is critical for member states to institute the necessary reforms thereby creating the necessary enabling environment. In this regard, concerted regional harmonization of policy, regulatory and legislative frameworks is the preferred mode.

Closing the infrastructure gap will require a concerted effort to increase finance from many sources. The magnitude of the infrastructure financing challenge far outweighs the resources available from any single source, necessitating a broad collaborative approach. Both ODA and private finance need to increase with ODA leveraging additional private capital.

Traditionally, funding for infrastructure has been the preserve of the state. Over the years, and on account of competing needs in different countries and on account of escalating social needs, public sector funding has declined, at a time when private sector interest is growing. It is therefore recommended that states embrace private sector funding for infrastructure and its operations, as a key to addressing the infrastructure backlog as well as de-risking infrastructure projects.

There needs to be increasing emphasis on regional integration projects to achieve better economies of scale. This implies that a coordinated multi-country action at the regional level is adopted given the relatively small size of many member states' economies, and given the geographical isolation of LLDCs, only regional initiatives can create economic spaces large enough to reap scale economies in infrastructure development and create adequate markets for products. According to the Infrastructure Consortium for Africa (ICA), funding infrastructure generates economies of scale if it is on a cross border basis, especially for countries with relatively small economies. In this regard, it is encouraged a regional integration-based funding model for infrastructure be prioritized to create opportunities for economies of scale and enhanced projects viability. Whilst funding through private sector has become the modern paradigm, experience also suggest that those countries with strong capital and financial markets have a better opportunity to access private sector funding, and these are linked to the need for appropriate enabling environments.

Funding for smart infrastructure is readily available but requires that projects be prepared to bankability to ensure appetite for funding. Furthermore, infrastructure financing trends indicate that China is increasing its footprint in terms of infrastructure financing in Africa. The appetite for private sector financing remains low, save in the ICT sector, and on a limited scale, energy and transport. The need for Africa to ensure an enabling environment for investment in infrastructure has become more important than ever before, as Africa seeks private sector investment that is normally accompanied by efficiency and high quality of service delivery. The need to migrate to cost reflective tariffs as a strategy to attract private sector funding continues to gather momentum.

One of the key factors impacting on pace of implementation of projects, and quality of the same is the issue of transparency in contract award, and avoidance of transfer pricing, generally depicted as corruption. States are encouraged to promote transparency, as others black list those that are flouting

transparency in contract award.

There are potential constraints relating to absorptive capacity at the level of states, and in order to ensure effective implementation and absorption, there is need to scale up capacity of implementing agencies alongside scaling up financial resources, especially in transaction management.

One of the key challenges in sourcing of finance for infrastructure has been situations where financing partners have preferences for countries they wish to support, and others the sectors they would like to support. Lessons learnt have suggested that partners prefer to support countries that are experiencing high performance and this provides states with incentives to do the right thing. LLDCs on account of their reduced competitiveness can be victims of this thinking.

Given the huge financial outlays on some projects, it is necessary to encourage co-funding by partners sharing the same vision. This can be further supported by blending mechanisms, where a partner draws down seed money to reduce risk and enhance potential to leverage the rest of the required resources.

Statistics on funding of infrastructure suggest that funding of water by the private sector is least in the area of water, and highest in ICT, and on account of this it is imperative to channel more grant financing to the water sector. It is encouraging however to note that most partners would like to fund projects directly linked to addressing SDGs, and in crafting proposals for funding, it is important for states to demonstrate the opportunities such projects have in addressing SDGs as they submit proposals to grant financiers.

One of the key challenges is the balance between investment and maintenance and it is key that budgetary provision be made to ensure maintenance is carried out as prescribed in the maintenance standards, and that proper monitoring and evaluation measures are enforced on maintenance. Innovative ways of funding infrastructure and regional integration are required and domestic resource mobilization has to complement the traditional sources of funding. For example, in a recent study undertaken by SADC, other avenues for funding regional integration include levies on import and export duties, illicit financial flows recalled to the region, regional lotteries and events, tourism levies, transport levies and philanthropy.

SELECTED FINANCING MODALITIES FOR INFRASTRUCTURE

A number of mechanisms for financing infrastructure are at the disposal of the states, project owners, and other stakeholders, and have been in operation for decades. The key modalities are summarized below.

1. Public Financing

Public financing of infrastructure has been the norm traditionally. However, owing to the growing competing needs within the public sector financing framework, in particular the socio-economic areas of health, education and other utility deliveries, the public sector has in recent years reduced its role in infrastructure financing, save where international financing partners are meeting almost all the costs of the project. The state has tended to finance high risk areas, which in the main, the private sector does not deem viable.

A recent model of financing infrastructure has included natural resources swaps where the development of infrastructure is financed, a large number without any feasibility studies undertaken, for example Chinese model in Angola and Mozambique (railway projects), Zimbabwe and Zambia (power projects) and Tanzania (railway project).

Domestic resources can be mobilized from domestic taxes, minerals and fuel, banking revenues, stock market capitalization, private equity markets, diaspora remittances and curbing illicit financial flows, all of which are estimated gross about US\$ 600 trillion per year. It is necessary to create Special Purpose Vehicles as funding instruments for utilization of such funding. It is on this basis that Africa has recommended the creation of the Africa 50 Fund, coupled with, among others, the African Credit Guarantee Facility (ACGF), deepening bond markets on the continent and establishment of Sovereign Wealth Funds. Ultimately, strengthening of Public-Public-Partnerships and related frameworks remains key to the success of Domestic Resource Mobilization (DRM).

It is further argued that DRM is essential in order to strengthen the bonds of accountability between governments and its citizens, given that foreign aid comes with conditionalities and its continued flow is not guaranteed. The challenge in Africa except North Africa is that savings rates are low, fiscal expenditure too high resulting in states requiring excessive borrowing, high dependence on aid and weak institutional capacity to mobilize and structure utilization of domestic resources. Case studies pertaining to DRM in some landlocked states have revealed certain characteristics that affect

their potential for DRM. For example, Burundi has emerged from post internal characteristics, Ethiopia is transitioning to a market based liberalized economy and Uganda has long records of reforms and potential resources like oil and minerals, which factors could enhance their capacities to mobilize DRM.²⁴

The enhancement of DRM in the region is desirable, as greater reliance on internal resources increases ownership of public policy, ties accountability to citizens instead of external investors and partners and avoids volatility arising from outside funding. DRM requires a stable macroeconomic environment, a well-structured financial sector with a competitive banking sector. On the other hand, most African countries save for North Africa depend on taxes as a source of revenue, whilst the revenue authorities remain weak with a narrow tax base, which encourages tax evasion. The average tax revenue constitutes about 18% of GDP whilst the ratio in resource rich countries is about 25%. It is critical that states build capacity for revenue collecting institutions to enhance their effectiveness.

There are many examples in Africa where DRM and PPPs have taken route, among them, the Grand Ethiopian Hydro-Power Scheme with more than 50% local commercial funding, the New Limpopo Bridge between South Africa and Zimbabwe, and the Beitbridge – Bulawayo Railway in Zimbabwe, which were premised on the Build-Operate and Transfer (BOT) models.

2. Private Sector Financing

There has been phenomenal growth in private sector financing of infrastructure in recent years, with the communications and ICT sectors taking a lead in attracting private sector investment, given demonstrable adequacy of cash flow and acceptable rate of return. In all such cases, the element of risk has been perceived to be very low. The structure of private sector financing has been the constitution of consortiums with a defined equity structure in the investment (e.g. the Maputo Corridor Development and the New Limpopo Bridge) based on a Built-Own-Operate framework (BOO). This option avoids crowding out of private sector by government and facilitates confidence building between government and private sector. It ultimately sends out positive signals within the international setting and relieves state of infrastructure financing and maintenance, thereby availing capacity for mandatory social welfare spending. The option

reduces frontiers of state in infrastructure financing, thereby creating more space for private sector and entrepreneurial culture in infrastructure provision and management. The financing options that Ethiopia had adopted in its rail network development comprised of domestic sources, external loans, grants and possible compensatory flows from the carbon fund.

a. *Public Private Partnerships (PPPs)*

In a number of other cases, when the government feels the infrastructure is strategic, it has bought equity directly or indirectly within the project and provided guarantees in order to reduce risk and teamed up with the private sector within the Build-Operate and Transfer (BOT) framework, where after many years (say 30 years), the private sector wholly transfers the assets and management to the state, assuming that all costs and reasonable returns have been recouped. There are also cases of the Build-Own-Operate-Transfer (BOOT), Lease- Rehabilitate-Operate-Transfer (LROT), the Build-Transfer-Lease (BTL) and Joint Ventures (JVs). The Bulawayo Beitbridge Railway, Gautrain (RSA), Sena Rail Line (Mozambique), Kazungula Bridge (Botswana, Zambia and Zimbabwe), are typical examples.

b. *Pension Funds and Insurance Reserves*

Owing to the increasing demand for funding of infrastructure, there is high propensity to utilise Pension and Insurance Funds. The main challenge for these options is the need to ensure that the funds get good returns from such investments. In any case, these two funding modalities have been applied to develop numerous real estate projects, and there are expectations that some viable infrastructure projects could compete aggressively in terms of returns. As a first step towards leveraging funding from these sources, it is critical to develop the instruments that can be applied to “sell money” to infrastructure investors. However, given that this is new terrain, these funds largely remain in exploratory stages, with the hope of becoming a reality in the near future.

c. *Funding by Commercial Banks*

A number of banks, for example Standard Bank, have opened up and financed infrastructure, in some cases as equity financing. However, this is more likely in cases where there are smart projects with more or guaranteed high return on investment as banks are risk averse.

²⁴ Why Enhance Domestic Resource Mobilisation in Africa?, Culpeper & Bhushan, 2010.

3. Climate Finance

One of the innovative ways of funding infrastructure is the application of climate funding, in the form of the Green Climate Fund and the Global Environmental Fund.

The Green Climate Fund (GCF) is a unique global platform aimed at responding to climate change through investing in low emission and climate resilient development. The fund, headquartered in Korea, was established to limit or reduce Green House Gas (GHG) emissions in developing countries and help vulnerable societies adapt to avoidable impacts of climate change. In the area of infrastructure, GCF supports energy, transport and water security projects for both public and private sectors. About 26% of projects approved by GCF are for the Africa region focusing on adaptation, mitigation and cross cutting sectors. The GCF programme supports the entire value chain of a project, from preparation, feasibility, project financing and attendant transaction management support. The support takes the form of direct funding, blending and co-funding with other partners. GCF approved 42 new projects in 2018.

The Global Environment Facility (GEF) funds are available to developing countries and countries with economies in transition to meet the objectives of the international environmental conventions and agreements. GEF support is provided to government agencies, civil society organizations, private sector companies, research institutions, among the broad diversity of potential partners, to implement projects and programs in recipient countries.²⁵ GEF has a long history of supporting conservation projects, having approved 24 total projects and invested nearly USD \$100 million toward UNDP-implemented projects in all 12 range countries since 1991. Funding by GEF is approved by the GEF Board. In collaboration with the United Nations Development Programme, the African Ministerial Conference on Water (AMCOW) and the Global Water Partnership have supported development and action on National Adaptation Plans (NAPs).²⁶

A number LLDCs are beneficiaries of climate financing, advanced for the purposes of project preparation, Readiness Support Facilities for Climate financing

as well as investment. A number of institutions have been accredited by GCF and GEF to provide agency support, and these include the United Nations Development Agency, African Development Bank and the Development Bank of Southern Africa. The LLDCs that are receiving support include Zambia and Uganda for National Adaptation Plans Readiness Support), through AfDB. Burundi and Eswatini have also submitted requests for support in this area. On the infrastructure side, two key projects for LLDCs include the Livingstone Climate Resilient WASH Project (Zambia). Others include the Mali Solar Rural Electrification Project at a cost of USD 39.1 million, and the Yeleen Rural Electrification Project in Burkina Faso to support 50000 households.²⁷

Programme for Infrastructure Development in Africa (PIDA): Implementation Financing Framework

At continental level, the Programme for Infrastructure Development in Africa (PIDA), approved by the AU Assembly in 2012, was developed through consultations involving the AUC/NEPAD, AfDB, UNECA, the RECs and other partners, culminating in the development and adoption of the PIDA Priority Action Plan (PIDA-PAP) for the continent. The PIDA-PAP comprises 51 programmes with an estimated value of 75 billion USD, eight (8) of which are considered priority projects, following their selection at the 2014 Dakar Financing Summit. A number of cross-border infrastructure projects have been implemented around the African continent. The PIDA database shows that 21 transport and related (transport and transit facilitation), two energy and 29 projects are already operational. The ICT projects are mainly upgrades of fibre optic cables and internet exchange points. Table 1.5 shows the cross-border infrastructure projects that are operational according to PIDA.

²⁵ Global Environment Facility, 2019

²⁶ Global Water Partnership, 2016

²⁷ Global Water Partnership Southern Africa, Water and Climate Development Programme (WACDEP), 2019.

**PROGRAMME FOR INFRASTRUCTURE
DEVELOPMENT IN AFRICA (PIDA):
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Table 1.5. PIDA Projects at Operation stage

No	Project Name	Type	Sub Sector	Location	Year	Data
1	Agona Junction - Alubo Road	Upgrade	Road	Ghana	2016	17%
2	Dar es Salaam New SPM Oil Terminal	Upgrade	Sea Port	Tanzania	2016	30%
3	Dar es Salaam Port Access Roads Development	Upgrade	Road	Tanzania	2016	35%
4	Kigoma-Kidahwe Road	Upgrade	Road	Tanzania	2013	17%
5	Rusumo OSBP	Upgrade	Border Post	Rwanda, Tanzania	2016	35%
6	Tabora-Nyahua Road	Upgrade	Road	Tanzania	2013	48%
7	Dobi - Galafi Road	Upgrade	Road	Ethiopia	2013	17%
8	Modjo Dry Port	Upgrade	Inland Container Depot	Ethiopia	2013	17%
9	Semera Dry Port	Upgrade	Inland Container Depot	Ethiopia	2013	17%
10	Bungoma - Eldoret Road	Upgrade	Road	Kenya	2016	17%
11	Kabale - Kisoro Road	Upgrade	Road	Uganda	2017	43%
12	Kampala - Eldoret Road	Upgrade	Road	Kenya	2016	22%
13	Malaba OSBP	Upgrade	Border Post	Kenya, Uganda	2016	39%
14	Masaka - Malaba Road	Upgrade	Road	Uganda	2013	13%
15	Molo-Eldoret Road	Upgrade	Road	Kenya	2016	17%
16	Mombasa - Nairobi Standard Gauge Railway ²⁸	Upgrade	Railway	Kenya	2017	52%
17	Mombasa Port New Container Terminal	Upgrade	Sea Port	Kenya	2016	35%
18	Nairobi Southern Bypass	Upgrade	Road	Kenya	2016	48%
19	Voi - Athi Road	Upgrade	Road	Kenya	2016	17%
20	Beira Port Dredging	Upgrade	Sea Port	Mozambique	2013	39%
21	Yamoussoukro Decision Full Implementation	Upgrade	Airport		2017	26%

Source: PIDA Database (2017)

²⁸ This is part of Mombasa - Kigali Railway Project.

The projects are supported by five funding instruments, namely; the PIDA Service Delivery Mechanism; the Continental Business Network; the Policy & Regulatory Support; M&E and Information Management and the Presidential Infrastructure Champion Initiative (PICI). These are further supported by a cross cutting instrument, the PIDA Capacity Building (PIDA CAP).

There are 51 transport-related, 4 energy and 27 ICT projects that are being implemented under the PIDA. Prominent among the trade-related cross-border

infrastructure projects are roads (28), 8 OSBPs mainly in the EAC and in ECOWAS, 3 airports (ECOWAS), 4 ports (SADC) and five rail projects. The distribution of the transport-related projects is shown in **Table 1.6**.

Progress has been achieved with the implementation of a number of specific projects, which has seen them advancing along progressive phases in the project cycle, from conception and preparation, through to detailed designs and securing investment funding. A total of eight projects have completed preparatory

Table 1.6. PIDA Projects under Implementation

No	Airports	OSBPs	Sea Ports	Rail	Roads	Total
COMESA					1	1
CEN-SAD					1	1
EAC		3		2	12	17
ECCAS		1	2		10	13
ECOWAS	3	3	1		3	10
IGAD		1				1
SADC			4	3		7
UMA					1	1
TOTAL	3	8	7	5	28	51

Source: PIDA database, 2017

stage, and these include projects in which Southern Africa has an interest, namely, North South and Beira Corridor Acceleration Programme (including Serenje Nakonde Road Project), the Central Corridor as a PIDA Acceleration Project/Corridor Acceleration Programme and portions of the Zambia-Tanzania-Kenya Transmission line are still at stage 2, undergoing feasibility studies, the Inga III under early project preparation.²⁹

Following the successful launch of the Central Corridor PIDA Acceleration Programme, which entailed support from the World Economic Forum, NEPAD, ADB, AUC, this culminated in the coming together of the private sector and public sector to enhance private sector investment and ultimately well-prepared project, under the auspices of the Continental Business Network for the Central Corridor. The second Acceleration project was the North - South and Beira Corridor Acceleration Programme, including Serenje-Nakonde Road Project, and funded by DBSA through SADC PPDF. The Continental Business Network (CBN) is a high-level platform for private sector involvement in the PIDA projects with the aim to crowd-in financing and support

for infrastructure projects through the platform for public-private sector collaboration. Following the launch of the PIDA Acceleration Programme, the implementation of the Central Corridor, the Beira Corridor and the North – South Corridor has gathered momentum, inspiring interest from the private sector to participate in both project preparation and investment. This will enable enhanced connectivity of Zimbabwe, Zambia and Malawi.

1.9. Trends in Development Finance in Africa

The Infrastructure Consortium for Africa (ICA) has continued to map infrastructure development finance disbursement for many years, and this has enabled the continent to appreciate the landscape around development finance. This has also enabled the region to be more pro-active as it understands the dynamics of sources of funds and the corresponding utilization areas. In its 2017 publication, the ICA spells out the trends and patterns of infrastructure development support as outlined below.³⁰

²⁹ Mid Term Review Report, NEPAD Regional Integration, Infrastructure and Trade, Magaliesburg, South Africa, August, 2017.

³⁰ Infrastructure Financing Trends in Africa, Infrastructure Consortium for Africa, 2017.

Development and concessional finance flows to Africa remained robust between 2009 and 2014, although the size of development finance relatively declined given that the economies of African countries more than doubled between 2005 and 2014.³¹ Development finance provided to African countries over the same period amounted to close to US\$ 810 billion, which is inclusive of US\$ 227 billion in private finance. Official flows constitute 75% of development finance in Africa, of which 59% comes from bilateral sources. The major sources of funding for African development are United States (14%), World Bank Group (12%), EU Institutions (12%), France (8%) and African Development Group (7%), totaling 53% of the overall development aid. In recent years, China has become the largest source of development finance for African countries and provided US\$ 107 billion between 2005 and 2012.

Overall commitments to Africa's infrastructure from all sources increased to \$81.6bn in 2017 from \$66.9bn in 2016. Though fewer ICA members reported data in 2017 than in the past, this is the highest level of directly comparable commitments report (2017), since 2010. Factors driving the higher commitments include a \$13bn increase in identified Chinese investments from \$6.4bn to \$19.4bn, and a \$3.7bn increase in African national and subnational government spending from \$30.7bn to \$34.4bn. According to the World Bank's Private Participation in Infrastructure (PPI) Project Database, the value of projects with private sector participation reaching financial close in 2017 totaled \$5.2bn, an increase from the \$3.6bn reported in 2016. Of this, \$2.3bn (44.8%) was privately financed. Commitments from ICA members to Programme for Infrastructure Development in Africa Priority Action Plan (PIDA/PAP) projects amounted to \$2.8bn, one-third higher than the \$2.1bn committed to PIDA from all sources in 2016. ICA members committed \$19.7bn to African infrastructure projects (ICA) in 2017, an increase of 5% from the \$18.6bn reported in 2016. This represents one of the highest commitments since the ICA began collecting data in 2010, only slightly below the 2015 high of \$19.8bn.

African state spending on infrastructure, which for the first time includes subnational state spending, where it can be identified, increased from \$30.7bn in 2016 to \$34.4bn in 2017. Data for 2016 have since been adjusted to include identified subnational spending.

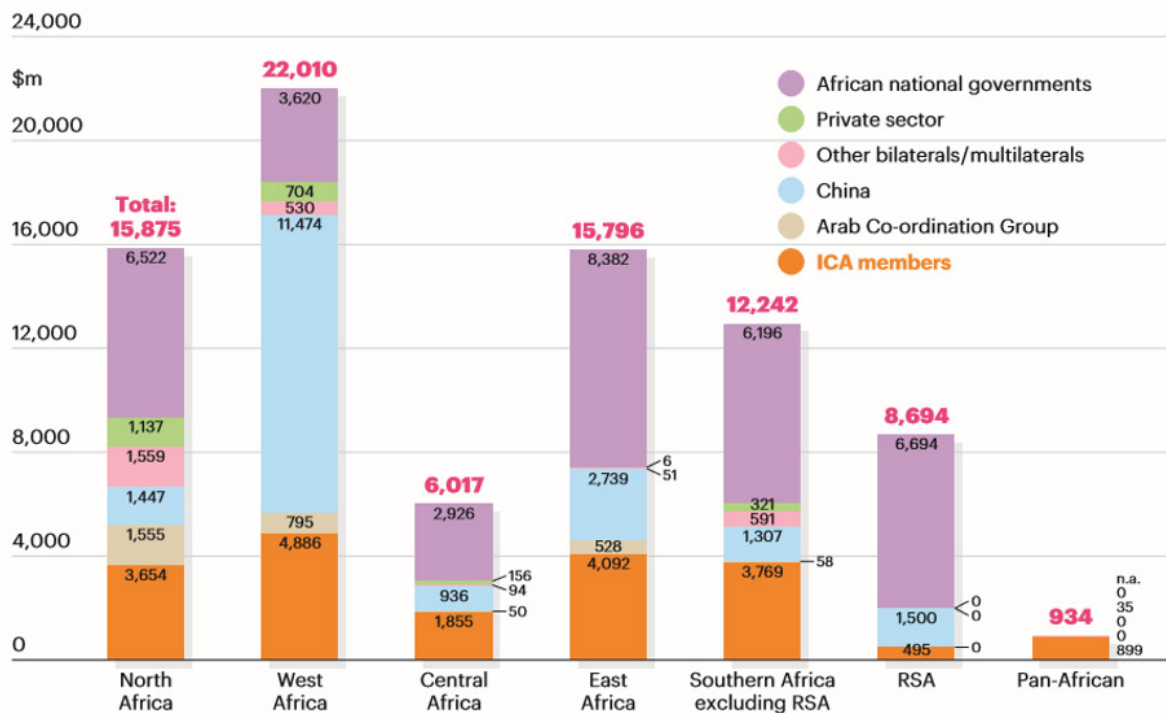
Commitments from non-ICA member bi-laterals and

multilaterals (excluding China) to African infrastructure projects reached \$5.8bn in 2017. Of this, the Arab Coordination Group (ACG) committed \$3bn compared with the \$3.8bn and \$4.4bn recorded in 2016 and 2015, respectively. India committed just over \$700m to infrastructure projects in 2017, the highest level since 2013. However, this is down from the high amount of \$1.2bn committed in 2016. Identified commitments made by South Korea in 2017 stood at \$10m compared with \$432m in 2016, but this was a significantly high figure compared with previous years. With commitments of \$34bn, the transport sector continued to be the largest beneficiary of infrastructure commitments in 2017 by a significant margin. Financing of transport infrastructure was equal to 41.7% of all funding. As with previous years, most of the \$20.1bn was provided by African national or subnational governments. The energy sector, which recorded \$24.8bn of investments in 2017, accounted for 30.4% of the total. The water sector accounted for \$13.2bn (16.2%), followed by multi-sector investments, which registered \$5.1bn (6.3%).

As depicted in Fig 1.3 above, of the \$81.6bn total financing commitments from all sources to all infrastructure sectors in 2017, West Africa accounted for \$22bn, North Africa \$15.9bn, East Africa \$15.8bn, Southern Africa \$12.2bn, South Africa \$8.7bn and Central Africa \$6bn. Intraregional and pan-African commitments totaled \$934m. Central Africa is a concern because it witnessed a decline in funding from \$7.9bn in 2016 to \$6bn in 2017. Funding for the region had been on an upward trend reaching \$8.3bn in 2014 but falling to \$4.9bn in 2015. The decline is attributed mainly to reduced budget allocations by the region's federal governments.

West Africa had the highest commitments in 2017 of \$22bn, about 27% of all infrastructure investments in Africa. The region's leading position is largely due to Chinese funding of 11.5bn (\$2.3bn in 2016), of which \$5.8bn is for the 3,050MW Mambilla hydroelectric power project in Nigeria. ICA member funding for the region amounted to \$4.9bn (\$4.6bn in 2016), both state funding and ACG commitments to West Africa were substantially reduced. State funding fell from \$4.9bn in 2016 to \$3.6bn in 2017. ACG commitments declined from \$1.5bn to \$795m in the same period. West Africa has also experienced a significant decline in private sector investment to just \$704m in 2017. In 2013 private investments of \$5.4bn were reported. The

³¹ Recent Trends in Development Finance in Africa and the Role of the African Development Fund, ADB, 2016

FIGURE 1.3 Total Infrastructure Funding Commitments by Sector and Source

Source: ICA

private sector invested \$1.3bn in 2015 and \$1.5bn in 2016.

East Africa reported commitments of \$15.8bn in 2017, 23% higher than the \$12.9bn reported in the previous year but substantially lower than the five year high of \$23.7bn reported in 2013 when Chinese funding of major railway projects in Kenya and Ethiopia were announced. Funding from China amounted to \$9.3bn in 2013 whereas in 2017 the Chinese announced financing of \$4.5bn. State spending in East Africa at \$8.4bn is the highest in the last five years during which budget allocations have amounted to between \$5.6-7.3bn. ICA members' funding of \$4bn is a little lower than the five-year annual average of \$4.4bn.

With commitments of \$15.9bn, North Africa reported the highest level of commitments since 2014 when it received commitments of \$23.2bn. Average annual commitments over the last four years amount to \$16.1bn. Investments in 2017 were bolstered by strong private sector interest backed by DFI support for the Benban solar project in Egypt. State spending of \$6.5bn in 2017 was the most the region has committed in the last five years.

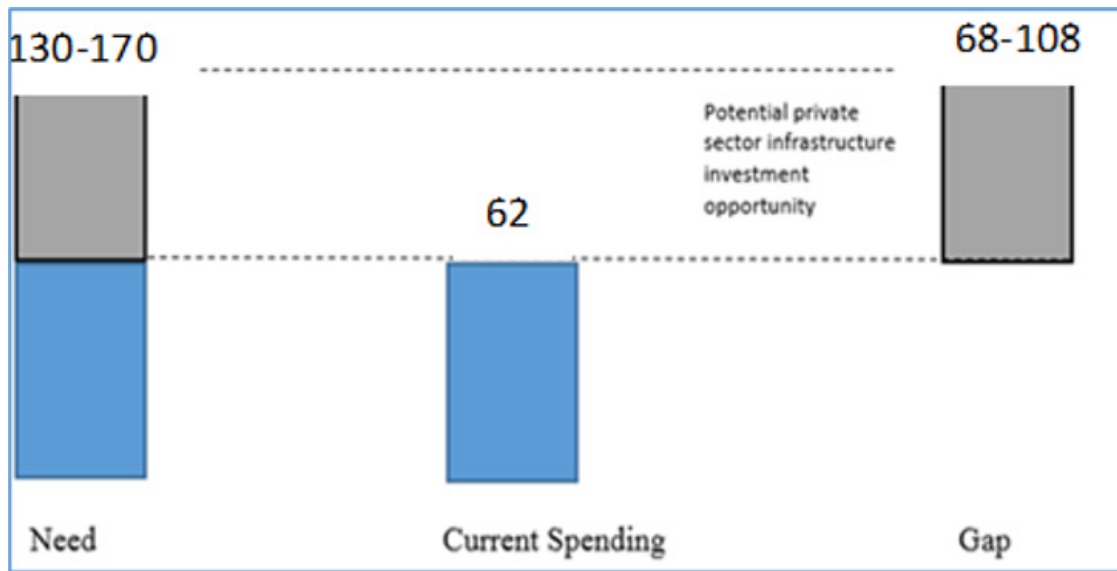
Southern Africa's commitments for 2017 of \$12.2bn is almost double the \$6.5bn reported in the previous

year. But 2016 was a year with exceptionally low commitments. From 2013 to 2015 commitments averaged \$15.4bn. Over the past five years, state funding has declined considerably in the region, from \$12bn in 2013 to \$6.2bn in 2017, although the latest figure is an increase on the \$4.7bn reported in 2016. ICA members' commitments of \$3.8bn to the region in 2017 are the strongest in the last five years over which the average annual amount committed is \$2.3bn. ICA members' commitments amounted to \$1.4bn in 2016. In the Republic of South Africa commitments to infrastructure amounted to \$8.7bn.

THE AFRICA INFRASTRUCTURE FINANCING GAP

Recent estimates by the AfDB published in its African Economic Outlook, 2018, reveal that Africa's annual infrastructure requirements amount to \$130bn-\$170bn with a financing gap in the range of \$68bn-\$108bn, as depicted in Figure 1.4 below. That figure is higher than the financial gap of \$93bn which was presented in 2010 in a World Bank publication, Africa's Infrastructure: A Time for Transformation. However, the AfDB's recent estimates correspond closely with an estimate provided in a 2010 World Bank publication, Africa's Infrastructure: A Time for Transformation".

FIGURE 1.4 Africa Infrastructure Financing needs, current spending and spending gap



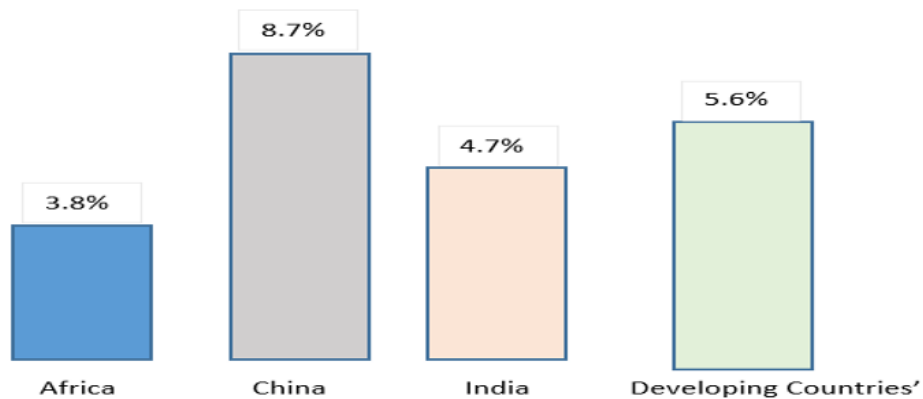
Source: AfDB Africa Economic Outlook Report, 2018

As illustrated in **Figure 1.5** below, infrastructure spending in Africa is about 3.8 % of GDP, whereas India and China spend 4.7 % and 8.5% of GDP respectively. The average for developing countries is 5.6% (ICA, 2014). This explains why Africa continues to lag behind other progressive regions in Africa.

required against actual expenditure of \$84bn, a figure derived from Infrastructure Financing Trends in Africa, 2015. The JICA commissioned paper highlighted that current annual spending needs are estimated to be \$120bn. The same paper advocates stakeholders creating conducive investment conditions for private sector financing, both from direct investors and from institutional investors who manage pension funds and insurance assets.

In terms of closing the gap, a background paper was presented at the Africa Emerging Markets Forum in Abidjan in March 2017. The paper commissioned by Japan International Co-operation Agency (JICA) indicated that 5-6% of GDP should be spent on infrastructure, suggesting spending of \$120bn is

FIGURE 1.5 Africa Average Infrastructure Investment Compared to Developing Countries

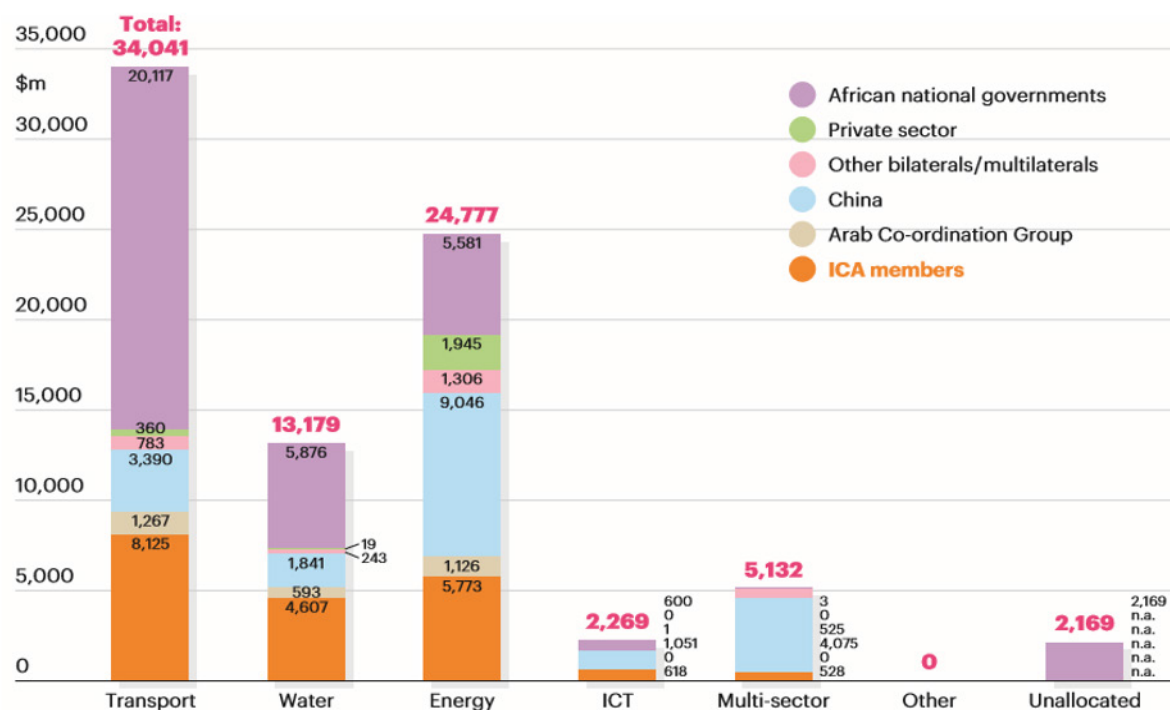


Source: ICA, 2014

The financing thresholds by source are derived from the estimates in the AfDB's African Economic Outlook,

2018 are presented in Figure 1.6 below.

FIGURE 1.6 Total Africa Commitments by Source in 2017



Source: ICA

It is clear that the infrastructure financing gap is wider in some sectors than others. In this regard, the water sector faces challenges in terms of filling the financial gap. This is because of the fact that it is 81-84% short of its annual financing requirement. On the other hand, given its annual financing need of \$35bn, the transport sector is just 8% short of its financing requirement. The challenge is finding bankable projects. If more countries presented effective institutional arrangements, then the prospects for more investments would most likely improve. In his foreword to the African Economic Outlook, 2018 AfDB Group President Akinwumi Adesina sums up what is needed, i.e., "to take advantage of the great potential for infrastructure development, governments will have to put in place effective institutional arrangements to manage the complex tasks of project planning, design, coordination, implementation, and regulation," he said. Adesina suggests that governments should also focus on the soft side of infrastructure development, by addressing policy and regulatory issues and training teams to develop financing packages.

In terms of infrastructure investment, Botswana

received the highest amount amongst LLDCs (above US\$ 60 per capita), followed by Zambia (US\$ 35 – 60), Rwanda and Mali (US\$ 20 – 7.0), Zimbabwe and Chad received the least amounts (less than US\$ 2).

1.10. Conclusions and recommendations

A number of conclusions and recommendations can be derived from the review undertaken in this section. The review suggests that whilst good progress has been made with the deployment of connectivity infrastructure in Africa, the situation as current falls short of the ideal transport network that is required to fully facilitate connectivity of LLDCs in the Africa region. The existing transport network is riddled with a large number of missing links, deferred maintenance (for road, rail, ports) and ongoing projects are taking too long to address the needs of the LLDCs in the short to medium term.

- It is critical that the Africa region and LLDCs, assisted by NEPAD NPCA, and the RECs prioritize projects to the few that have greater impact on connectivity, economic development of LLDCs and other African states.
- LLDCs should ensure that there is a pipeline of bankable priority infrastructure projects for investment through the various funding mechanisms that have been identified in this report and the states should identify the various funding mechanisms for both project preparation and capital investment (CAPEX).
- Given that Africa's infrastructure gap continues to widen, there is urgent need to liberalize infrastructure investment and financing, through promotion of private sector investment and operations, underpinned by the implementation of the "user pays principle".
- LLDCs should accelerate preparation of projects to bankability in order to scale up investment, with focus on smart projects that impact more on economic transformation.
- The LLDCs and transit states need to accelerate domestication and implementation of sound regionally adopted policy, regulatory and legislative frameworks to create an enabling environment for investment and infrastructure operations as well as enhance global competitiveness.
- LLDCs should enhance their capacities to manage the project implementation value chain and transaction management, with the assistance of participating DFIs and other supporting partners.
- There is no doubt that air transport connectivity and traffic volumes continue to increase on a year by year basis. However, it is critical for the African Union to keep pushing for further liberalization of the skies within the framework of the Single African Air Transport Market (SAATM), in order to allow LLDCs to grow their networks within Africa.
- African countries should develop and implement maintenance strategies incorporating adherence to accepted standard maintenance schedules to ensure sustainability and serviceability of infrastructure, which is key to reducing the cost of doing business as well as stimulating economic development. Furthermore, adequate annual budgetary allocations for maintenance should be made to avert deferred maintenance.
- It is also critical that under the championship of the African Union, a ring fenced programme to enhance LLDCs connectivity to the seas be adopted and embedded in the programmes of the RECs, with clear targets, benchmarks and reporting mechanisms to enhance LLDCs connectivity and infrastructure delivery.

PART II: THE STATUS OF IMPLEMENTATION OF THE VIENNA PROGRAMME OF ACTION

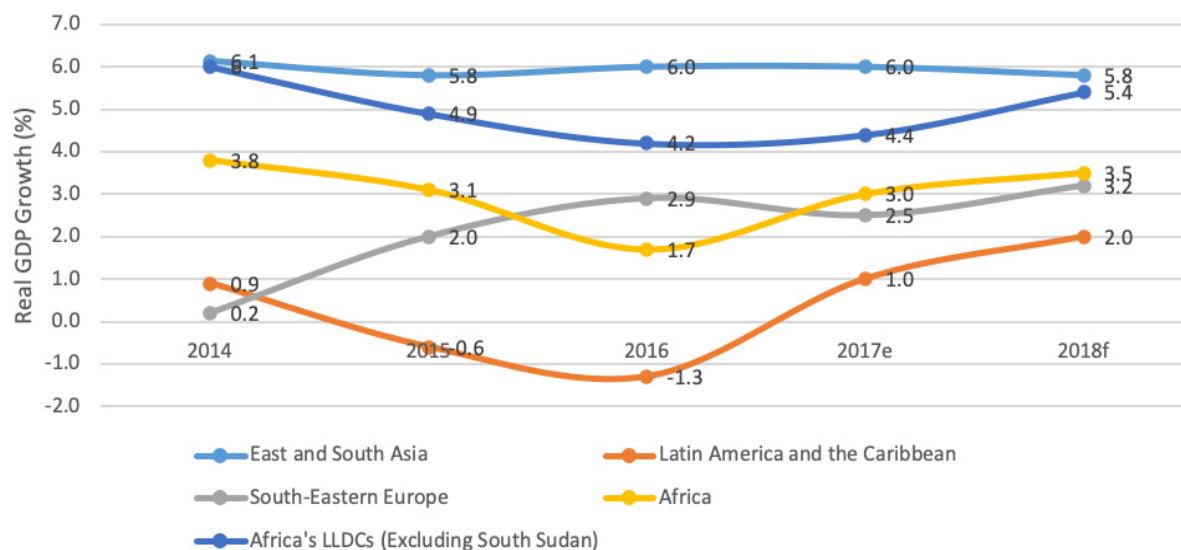
2.1. Introduction

This section reviews the status of implementation of the Vienna Programme of Action in the Africa Region focusing on the priority areas of the Vienna Programme of Action including: Priority 1: Fundamental transit policy issues; Priority 2b: Infrastructure development and maintenance focused on Energy and information and communications technology infrastructure; Priority 3: International trade and trade facilitation; Priority 4: Regional integration and cooperation; Priority 5: Structural economic transformation; and Priority 6: Means of implementation. The section first reviews the progress made by African LLDCs on socio-economic development and the SDGs.

2.2. Socio-Economic Development of LLDCs and their Assessment of SDGs Performance

The economic growth performance of African LLDCs (excluding South Sudan) decreased from 6 per cent in 2014 to 4.2 percent in 2016. In 2017, these countries experienced a modest recovery when they registered a growth of 4.4% in 2017 (Figure 2.1). Despite the declining trend from 2014 to 2016, some African LLDCs experienced strong growth such as Burkina Faso (6.4 per cent), Ethiopia (7.3 per cent), Mali (5.1 per cent) Niger (5.5 per cent), Rwanda 6.7 per cent and Uganda (5.7 per cent) over the 2017 period. While countries such as Burundi and Chad experienced the

FIGURE 2.1 Economic growth in Africa and developing regions, 2014-2018



Source: Based on data from the UNDESA (2018) Note: "e" refers to estimates and "f" to forecasts.

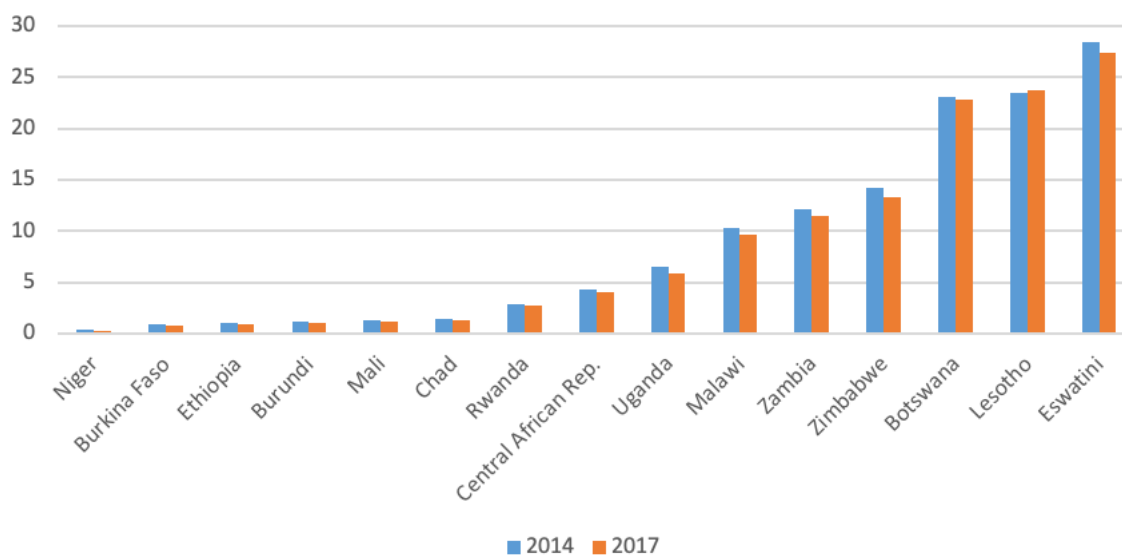
lowest growth rates of 0.02 percent and 0.1 per cent respectively.

The foregoing notwithstanding, Africa's LLDCs have also continued to register appreciable gains in health outcomes particularly in child and maternal health. Although relatively higher compared to other regions such as Europe and Asia, infant mortality rate, under-five mortality rate (U5MR), and maternal mortality ratio (MMR) have continued to steadily decline over the review period. There has been notable decrease in the HIV prevalence rate in African LLDCs over the

review period as shown in Figure 2.2. Similar progress has been noted in education outcomes, particularly improvements in gross and net enrolment ratios at primary school level. Progress would have been much higher and faster were it not for high levels of income inequality within countries that have muted the impact of growth on social development.

The Human Development Index (HDI) is directly linked to SDGs implementation, and depicts the average quality of life of citizens in any country. Seven African LLDCs recorded an HDI of at least 0.5 between 2014

FIGURE 2.2 Prevalence of HIV, total (% of population ages 15-49)



Source: World Bank World Development Indicators, 2019.

and 2017 as shown in **Table 2.1**. The HDI increased over the review period for all LLDCs with the exception of one country. Overall, all the African LLDCs performed below the average of the LLDC group and the world average. More needs to be done by LLDCs to improve the quality of lives for its citizens.

Unemployment rate for the LLDCs’ group (**Table 2.2**) stood at about 5.5 per cent during 2015-2017 whilst the rate for the African LLDCs was much higher at 8.7%. The African LLDCs continue to face high unemployment due to limited economic opportunities in the labor market. The most affected are women and youth.

Table 2.1. Human Development Index

	2012	2014	2015	2016	2017
Botswana	0.683	0.701	0.706	0.712	0.717
Burkina Faso	0.394	0.405	0.412	0.420	0.423
Burundi	0.408	0.421	0.418	0.418	0.417
Central African Republic	0.365	0.349	0.357	0.362	0.367
Chad	0.391	0.403	0.407	0.405	0.404
Eswatini	0.561	0.580	0.584	0.586	0.588
Ethiopia	0.430	0.445	0.451	0.457	0.463
Lesotho	0.505	0.509	0.511	0.516	0.520
Malawi	0.455	0.468	0.470	0.474	0.477
Mali	0.408	0.414	0.418	0.421	0.427
Niger	0.336	0.345	0.347	0.351	0.354
Rwanda	0.500	0.509	0.510	0.520	0.524
South Sudan	0.388	0.397	0.399	0.394	0.388
Uganda	0.492	0.500	0.505	0.508	0.516
Zambia	0.569	0.580	0.583	0.586	0.588
Zimbabwe	0.505	0.525	0.529	0.532	0.535
Average African LLDCs	0.462	0.472	0.475	0.479	0.482
Average, All LLDCs	0.562	0.573	0.576	0.580	0.582
World	0.709	0.718	0.722	0.726	0.728

Source: UNDP Human Development Reports

Table 2.2. Unemployment (% of total labor force) (modelled ILO estimates)

	2013	2016	2017
Botswana	17.7	17.9	18.1
Burkina Faso	6	6.4	6.3
Burundi	1.5	1.6	1.6
Central African Republic	6.3	6.2	6
Chad	5.7	5.8	5.9
Eswatini	26.9	26.3	26.4
Ethiopia	5	5.1	5.2
Lesotho	24.6	27.8	27.2
Malawi	5.9	6	6
Mali	7.3	7.8	7.9
Niger	0.3	0.3	0.3
Rwanda	2.3	1.2	1.3
South Sudan	12.9	11.5	11.5
Uganda	1.9	2	2.1
Zambia	7.8	7.8	7.8
Zimbabwe	5.3	5.2	5.2
Average African LLDCs	8.6	8.7	8.7
Average, All LLDCs	5.5	5.5	5.5
World	5.6	5.5	5.5

Source: ILO, Key Indicators of the Labour Market and World Bank, World Development Indicators

In 1995-2015 period, African landlocked countries as a group exhibited some improvement in Gender Inequality Index (GII) of UNDP to non-landlocked countries in Africa (Table 2.3). However, gender inequality index for LLDCs is higher than for non-LLDCs and Africa region as a whole.

In terms of safe drinking water, the LLDCs that have high access rates are Botswana, Mali, Lesotho, Eswatini, Zimbabwe, Malawi and Zambia, all of which are above the 50% threshold. On the other hand, Uganda has access below 50%. Access to water generally remains low. Better planning and more resources for investment

Table 2.3. Unemployment (% of total labor force) (modelled ILO estimates)

Year	Gender Inequality Index		
	LLDCs	Non-LLDCs	Africa
1995	0.659	0.652	0.655
2000	0.647	0.627	0.635
2005	0.611	0.579	0.591
2010	0.572	0.562	0.565
2015	0.557	0.530	0.540

Source: Gender Inequality Index, UNDP, 1995-2015.

are required to scale up WASH programmes.

Regarding Science, Technology and Innovation (STI), the assessment suggests that most countries have weak STI institutional architecture coupled with low investment in research and development. In addition, STI policies are available in very few states. Investment

in STI is 0.5% of GDP as opposed to 1% target in Agenda 2063. LLDCs have markedly low investments in research and development as well as STI. There is need to attract outside technology and customize the same for the states. It is critical to strengthen the STI ecosystems as well as support institutions. Most of the entities responsible for STI policymaking have operated

in isolation from other policy agencies with weak links to the private sector and academia. Greater use needs to be made of academic institutions, which should partner with institutions in developed countries.

Regarding Life on Land, which seeks that the global community to take urgent action to protect, restore and promote sustainable use of terrestrial and freshwater ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and loss of bio-diversity. Africa's ecosystems are under serious threats of degradation and is four times the world average. The region is however only second to Europe and North America in terms of protection of its biological resources. In addition, Africa also outperforms other regions in respect of Mountain Green Cover Index (MGCI), but concerns around extinction of rare animal species continue to obtain. Africa is also commended for the steps it has taken on conservation although deforestation remains an issue. The proportion of forest area to total land area in African LLDCs was about 20% in 2015 much higher than the total for all LLDCs of 15.8%. This indicates that more needs to be done to conserve and build the forests.

2.3. Priority Area 1: Fundamental Transit Policy Issues

Freedom of transit and adequate transit facilities are vital for the overall development of the LLDCs. It is in this regard that the VPoA stresses the necessity of a strong supportive legal framework that promotes the harmonization, simplification and standardization of rules and documentation, including the full and effective implementation of relevant international conventions on transport and transit.

The World Trade Organization (WTO) Trade Facilitation Agreement (TFA) seeks to address cost of trade that is occasioned by delays at borders and customs related processes and procedures. Its three main objectives are:

- Expedite the movement, release and clearance of goods, including goods in transit
- Improve cooperation between customs and other authorities
- Enhance technical assistance and build capacity for the implementation of the TFA

Since the adoption of the VPoA in 2014, African LLDCs and transit countries have made progress in the ratification of the TFA. The TFA contains provisions for expedited movement, release and clearance of goods,

including those on transit and it has been found that the TFA has the potential to reduce costs by between 12.5 and 17.5 per cent. As of the end of January 2019 thirteen of the African landlocked developing countries (LLDCs) out of 14 that are WTO members had ratified the TFA by October 2018, which leaves only three countries - Burundi, Ethiopia and South Sudan which still have to ratify the TFA. Ethiopia is working on its accession to the WTO and until this is complete, it cannot be party to the TFA. 13 African transit countries out of 19 had also ratified it. The TFA entered into force on 22 February 2017 upon ratification by two-thirds of the WTO membership.

Table 2.4 below shows the ratification, notifications and implementation by African LLDCs up to March 2019. In general, information to date shows that a number of developing and LDC members of the WTO had not fully complied with the requirements of the TFA especially on the notifications.

Table 2.5 shows the implementation rate of the different provisions of the TFA for all African countries and for African LLDCs. The average implementation rate of measures is 32.6 per cent for Africa and 33.8 for African LLDCs, indicating good commitment from the LLDCs on the continent. Areas where the LLDCs are particularly ahead of the continental average include Article 9, Movement of goods intended for import under customs controls, where the implementation rate by African LLDCs is nearly 93 per cent (compared to African average of 70.5 per cent), as well as Article 6, Disciplines on fees and charges imposed on or in connection with importation and exportation and penalties, where implementation is 38.1 per cent against average of 31.4 per cent, and Article 2 (Opportunity to comment, information before entry into force and consultations) where implementation rate is 35.7 per cent compared to continental average of 31.1 per cent. Areas where LLDCs are most lagging behind include Article 4 (Procedures for appeal or review, 21.4 per cent compared to 38.9 per cent), Article 8 (Border agency cooperation, 2.4 per cent compare to 9.8 per cent) and article 5, Other measures to enhance impartiality, non-discrimination and transparency (38.1 per cent, compared to 41.7 per cent).

Variation however also exists within articles, as captured in **Figure 2.3** which presents the implementation rate by provision. For example, within Article 1, LLDCs are exceeding continental average on publication and notification, but below average on information available through internet and enquiry points. In Article 5, while LLDCs are below continental average overall, they have an implementation rate of 71.4 per cent on

Table 2.4. Implementation of commitments

Country	Date of Ratification	Notified	Rate of implementation commitments				Date for implementing B commitments
			To date (Category A) %	By definite Dates & Without capacity building support (Category B) %	Upon receipt of capacity building support (Category C)	Yet to be designated	
Botswana	18 Jan. 2015	A, B, C	28.2	67.2	4.6		Dec. 2020
Burkina Faso	21 Sep. 2018	A	12.2			87.8	
Central African Republic	11 Jan. 2018	A	26.9			73.1	
Chad	22 Feb. 2017	A, B, C	34.5	30.3	35.3		Without
Eswatini	21 Nov. 2016	A, B, C	9.7	41.2	49.2		Feb. 2027
Lesotho	4 Jan 2016	A, B, C	11.8	28.2	60.1		Dec. 2019
Malawi ³²	12 Jul. 2017		73.1	26.9			Feb. 2020
Mali	20 Jan 2016	A, B, C	65.5	17.2	17.2		Without capacity building
Niger	6 Aug. 2015	A, B, C	31.9	10.9	57.1		Without Capacity building
Rwanda	22 Feb. 2017	A, B, C	26.9	56.3	16.8		March 2020
Uganda	27 Jun. 2018		8.0			92.0	
Zambia	16 Dec. 2016	A, B, C	5.5	29.4	65.1		Without Capacity building
Zimbabwe	17 Oct. 2018	A	34.9			65.1	

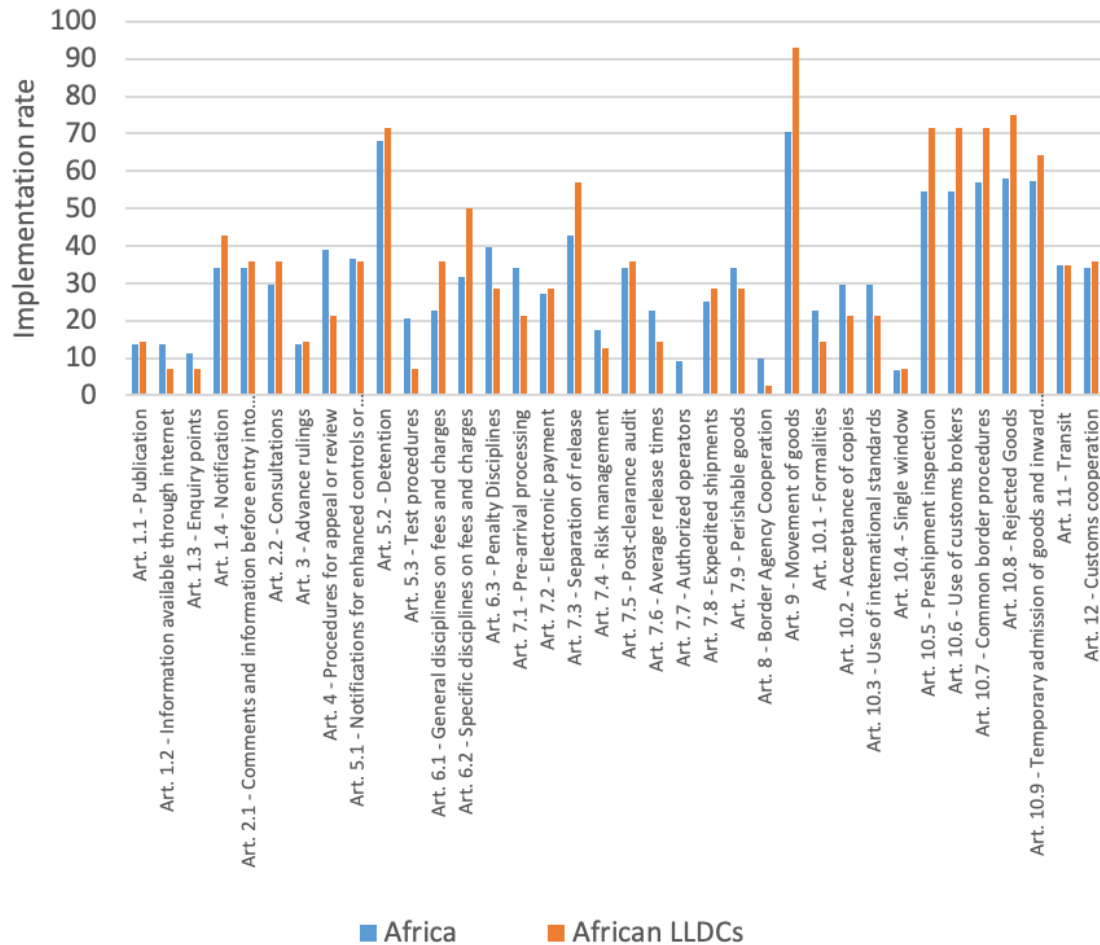
Source: Trade Facilitation database <http://www.tfadatabase.org>

Table 2.5. Implementation rate of TFA provisions, by article

Article	Africs	African LLDCs
1: Publication and availability of information	18.2	17.9
2: Opportunity to comment, information before entry into force and consultations	31.8	35.7
3: Advance rulings	13.8	14.3
4: Procedures for appeal or review	38.9	21.4
5: Other measures to enhance impartiality, non-discrimination and transparency	41.7	38.1
6: Disciplines on fees and charges imposed on or in connection with importation and exportation and penalties	31.4	38.1
7: Release and clearance of goods	27.4	25.2
8: Border agency cooperation	9.8	2.4
9: Movement of goods intended for import under customs controls	70.5	92.9
10: Formalities connected with importation, exportation and transit	41.1	46.4
11: Freedom of transit	34.7	34.7
12: Customs cooperation	34.1	35.7

Source: ECA based on <https://www.tfadatabase.org>, accessed 28 February 2018.

³² The rate of implementation is across all categories.

FIGURE 2.3 Implementation rate of TFA provisions, by measure.

detention, while African average is 68.2 per cent.

It is clear from the figures above that while implementation is well under way, there is still room for improvement on trade facilitation on the continent overall. This also has been confirmed by the Global Survey on Paperless Trade and Trade Facilitation Implementation carried out by the UN regional economic commissions. In 2017, the implementation rate for Africa (excluding North Africa) was 51.4 per cent, against global average of nearly 60 per cent. Latin America reported 68 per cent, Southeast and East Asia 63 per cent and developed economies 78.5 per cent. At

the same time, efforts are being made. Global Review for Aid for Trade of 2017 revealed that trade facilitation is the number 1 stated priority for Aid for Trade for Africa, and constituted 60 per cent of the trade policy related AfT disbursements.

Since the adoption of the Vienna Programme of Action, the ratification and implementation of other relevant international conventions by African countries, such as the TIR Convention and the International Convention on the Harmonization of Frontier Controls of Goods, however, remains low, as depicted in Table 2.6.

Table 2.6. Status of ratification of key international conventions to promote trade and transport facilitation, as of July 2018

Convention or agreement	African landlocked developing countries	African transit countries	World total
Revised Kyoto Convention (2006)	11 (73%)	9 (47%)	123
TIR Convention (1975)	0	0	73
International Convention on the Harmonization of Frontier Controls of Goods (1982)	1 (6%)	1 (5%)	58

Source: World Trade Organization, World Customs Organization and Office of Legal Affairs of the Secretariat.

Note: *- refers to percentage of the total landlocked developing countries or transit countries.

Only a limited number of landlocked developing countries and transit countries in Africa are party to international conventions on transport and transit, however, many are party to regional and subregional agreements aimed at facilitating ease of movement of goods and people in the region. One such initiative is the Tripartite Transport and Transit Facilitation Programme, an initiative of the South African Development Community (SADC), the Common Market for Eastern and Southern Africa (COMESA) and the East African Community (EAC) launched in October 2017 as the successor programme to the Comprehensive Tripartite Transport and Trade Facilitation Programme, implemented until 2017. The launch of the COMESA-EAC-SADC Tripartite Free Trade Area in June 2015, in Sharm el Sheikh, Egypt, strengthened the resolve of the twenty-six Tripartite States to implement various trade facilitation measures from which landlocked developing countries are set to benefit. The Tripartite is comprised of about 50 per cent of the countries in Africa. Its initiatives have been adopted as a model for the rest of the African continent. The Tripartite Free Trade Area has yet to come into force, but four countries³³ out of fourteen required have ratified the agreement, as at 31 December 2018.

Furthermore, in 2015, the Heads of State and Governments of the African Union adopted a decision in which it called on countries to introduce a 30-day visa on arrival for all citizens of African countries. Countries such as Ghana, Ethiopia and Rwanda have taken the lead by relaxing visa restrictions and offering a visa-on-arrival option for all Africans. Other initiatives such as the African passport, visa-free regional blocs, or multi-year visas, aimed at facilitating free movement of persons, goods and services around the continent need to be fast-tracked to achieve “The Africa We Want” as set out in Agenda 2063.

NATIONAL TRADE FACILITATION COMMITTEES

Article 23.2 of the TFA requires WTO members to establish a National Committee on Trade Facilitation (NCTF) or to designate an existing mechanism that can facilitate the domestic coordination and implementation of the TFA's provisions. According to UNCTAD (2019)³⁴ National Trade Facilitation Committees are established to comply with Article 23.2. and they are also instruments for fulfilling Article 2.2 on consultations between border agencies and the private sector. It is noted that on average, 40 per cent

of NTFC members represent businesses, providing a perfect platform for regular public-private consultation.

Most WTO members including LLDCs have already established NTFC or have finalized their plans to do so. A 2016 electronic survey showed that 60 per cent of WTO members who responded had already established a NTFC, while 17 per cent of respondents had finalized their plan and were ready to start implementation.³⁵ An additional 2 per cent of respondents had a mechanism other than a NTFC to implement the provisions of the TFA. The remaining 18 per cent of respondents were actively considering how best to set up a NTFC.

CHALLENGES FOR NTFCs

The operationalisation of NTFCs requires that they mobilize a large number of stakeholders from the breadth of the trade and trade related sectors. This also involves the coordination of a significant number of government agencies. Often, a large number of legislative, regulatory, or institutional adjustments are needed, as well as capital equipment, human resources and training. The actual establishment and maintenance of a NTFCs presents associated challenges and difficulties. Participants at a workshop looking at NTFCs identified the following challenges for NTFCs:

- Implementation of effective coordination among the different stakeholders;
- Achievement of the right membership and participation in the committee;
- Definition of an adequate mandate or description of the NTFC's functions;
- Lack of political support and/or commitment from the stakeholders for the establishment and continuity of the NTFC;
- Lack of human resources or funding to maintain a technical secretariat for the committee;
- A general lack of awareness or understanding of the TFA or the role to be played by the NTFCs;
- Problems in securing the formal approval or completing the relevant domestic legal procedures, even after the institutional framework of the NTFC has been designed.

While not many LLDCs and transit countries in Africa are party to international conventions on transport and transit, they are party to regional and sub-regional

³³ These countries are Egypt, Kenya, South Africa and Uganda.

³⁴ The World Trade Organization's Trade Facilitation Agreement at two: Where do members stand? Pamela UGAZ, Economic Affairs Officer, Article No. 30 [UNCTAD Transport and Trade Facilitation Newsletter N°81 - First Quarter 2019] <https://unctad.org/en/pages/newsdetails.aspx?OriginalVersionID=1998>

³⁵ WTO (2016) National Committees on Trade Facilitation: current practices and challenges, Trade Facilitation: Experience Sharing Series. WTO Trade Facilitation Agreement.

agreements that are aimed at facilitating ease of movement of goods and people in the region. Initiatives include the Tripartite Transport and Transit Facilitation Programme, an initiative of South African Development Community (SADC), Common Market for Eastern and Southern Africa and the East African Community launched in October 2017, the successor programme to the Comprehensive Tripartite Transport and Trade Facilitation Programme (CTTTFP), implemented until 2017. The Programme for Infrastructure Development in Africa (PIDA) which is a strategic continental initiative for mobilizing resources to transform Africa through modern infrastructure. The launch of the COMESA-EAC-SADC Tripartite Free Trade Area in June, 2015, in Sharma el Sheikh, Egypt, strengthened the resolve of the twenty-six Tripartite States to implementation of the various trade facilitation measures, from which the LLDC are set to benefit. The Tripartite comprises of about half of the African continent, whose initiatives have been adopted as a model for the rest of the African continent. The TFTA is yet to come into force, but four³⁶ countries out of fourteen required have ratified the agreement as at 31 December 2018.

The cost of being landlocked includes higher costs of freight and unpredictable transit times. The advent of AfCFTA provides particular benefits to African LLDCs in addition to reducing tariffs, it is set to include provisions on trade facilitation, transit and customs cooperation. Since its launch on 21 March 2018, the consolidated agreement establishing AfCFTA, the Protocol on Trade in Goods, the Protocol on Trade in Services and the Protocol on Rules and Procedures on the Settlement of Disputes came into force effectively on 30 May 2019 and it entered into an operational phase on 7 July 2019, at an African Union (AU) summit in Niger, marks momentous milestone for economic integration of Africa. 2018. In addition to AfCFTA, thirty countries signed the Protocol on Free Movement of People and forty-seven have signed the Kigali Declaration.

After the Kigali summit, more signatures were added to the AfCFTA. At the African Union summit in Nouakchott on 1 July 2018, five more nations joined the agreement, including South Africa. Kenya and Ghana were the first nations to ratify the agreement, depositing their ratifications on 10 May 2018. Of the signatories, 22 needed to ratify the agreement for it to come into effect which occurred on 29 April 2019 when both Sierra Leone and the Saharawi Arab Democratic Republic ratified the agreement. As a result, the agreement came into force 30 days later on 30 May 2019; and at that

point, only Benin, Nigeria, and Eritrea had not signed. Eritrea was not part of the initial agreement due to an ongoing state of war, but the 2018 peace agreement between Ethiopia and Eritrea ended the conflict and ended the barrier to Eritrean participation in the free trade agreement. At the 12th Extraordinary Session of the African Union on AfCFTA which was called to launch the new agreement, Benin and Nigeria signed the agreement, leaving Eritrea as the only African state not a part of this agreement. Eritrea has since asked to join the agreement. Gabon and Equatorial Guinea also deposited their ratifications at this summit. At the date of the launch, there were 27³⁷ states who had ratified the agreement.

At its launch, five operational instruments that governs the AfCFTA were activated: "the rules of origin; the online negotiating forum; the monitoring and elimination of non-tariff barriers; a digital payment system; and the African Trade Observatory." Some Phase One issues that remain to be negotiated include the schedule of tariff concessions and other specific commitments. Ghana was also selected to host AfCFTA Secretariat at the same Launch meeting. Negotiations for Phase II began in February 2019. These negotiations will cover protocols for competition, intellectual property, and investment and are expected to finish in 2020.

In addition, in 2015, the Heads of State and Governments of the African Union adopted a decision in which it called on countries to introduce a 30-day visa on arrival for all citizens of African countries. Countries such as Ghana, Ethiopia and Rwanda have taken the lead by relaxing visa restrictions and offering a visa-on-arrival option for all Africans. Other initiatives such as the African passport, visa-free regional blocs, or multi-year visas, aimed at facilitating free movement of persons, goods and services around the continent should continue to be promoted by the African Union.

One of the specific objectives of the VPoA is to reduce travel time along the corridors with the aim of allowing transit cargo to move 300-400km for every 24hours. Some corridors such as the Central Corridor and Trans Kalahari have managed to achieve the VPoA specific objective, however other corridors have not yet achieved the target while some corridors do not have readily available data on the indicator. The other specific objective is aimed at reducing the amount of time spent at points of intermodal transfer between rail, road and port. Although data to measure progress on this objective are not readily available, World Bank

³⁶ These countries are Egypt, Uganda, Kenya and South Africa

³⁷ Ghana, Kenya, Rwanda, Niger, Chad, Congo Republic, Djibouti, Guinea, Eswatini, Mali, Mauritania, Namibia, South Africa, Uganda, Ivory Coast (Côte d'Ivoire), Senegal, Togo, Egypt, Ethiopia, The Gambia, Sierra Leone, Saharawi Republic, Zimbabwe, Burkina Faso, São Tomé and Príncipe, Gabon, and Equatorial Guinea

studies indicate that the average cargo dwell time in most ports in East Asia and Europe is close to four days. In Africa, the port of Durban is comparable, with a dwell time of four days. Some progress has been made in reducing cargo dwell time, which decreased from 14 days in 2012 to 9 days in 2017 at Dar es Salaam port and from 11 days to 4 at Mombasa port over the same period. Other port dwell times identified in 2017 were: in Douala, Cameroon, 17 days; in Lomé, Togo, 9 days; in Tema, Ghana, 15 days. More efforts are needed to reduce the port dwell times, and there is a need to capture data and update it regularly in order to monitor this objective. Also, the other VPoA specific objective for the priority area is to significantly reduce the time spent at land borders.

RECOMMENDATIONS

- LLDCs and transit countries are encouraged to cooperate and coordinate on fundamental transit policies, laws and regulations and towards enhancing freedom of transit and transpose the international standards based on international conventions/agreements in national legislation. International organizations are encouraged to scale up technical assistance and capacity building support towards the effective accession, ratification and implementation of relevant international conventions and regional agreements.
- LLDCs and transit countries are encouraged to use available tools to promote transit such as the WCO Transit Guidelines with a view of supporting economic development of LLDCs.
- LLDCs and transit countries are encouraged to effectively implement the WTO TFA and other

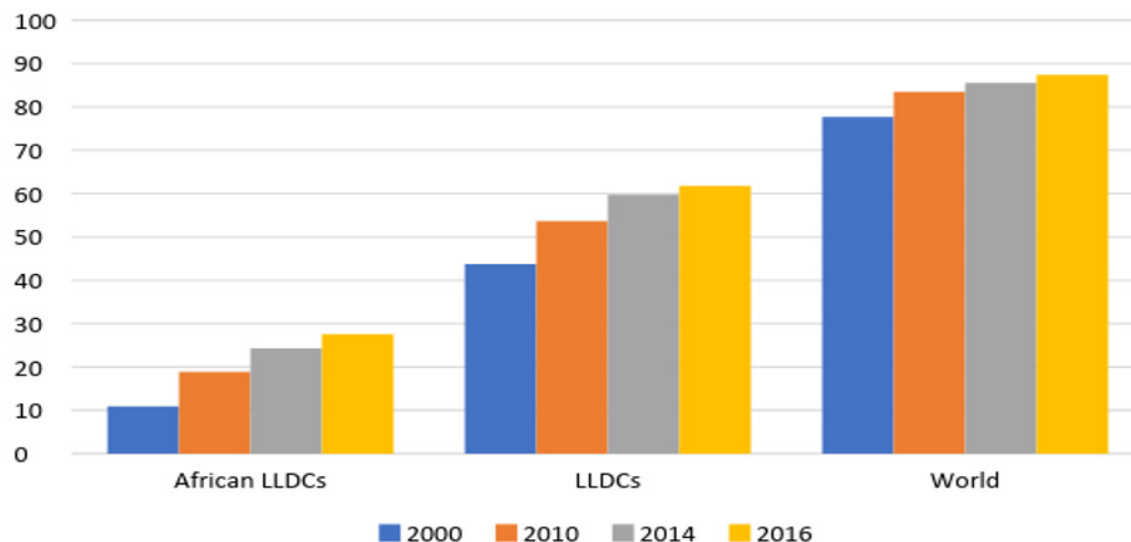
relevant international and regional agreements to improve transit.

- The international community including development partners, UN system organizations, other international and regional and sub-regional organizations are invited to provide support.
- LLDCs and transit countries are encouraged to strengthen or adopt a corridor approach to improve transit. UN-OHRLS, UNECA, UNCTAD, the International Think Tank for LLDCs and other relevant partners are invited to provide technical support.
- The use of other mechanisms to monitor travel time along transit transport corridors like the WCO Time Release Studies is encouraged. Countries and relevant regional organization are encouraged to publish the main findings detailing challenges leading to major delays and make recommendations on solutions to these challenges.
- The continent should move with speed to implement the SMART Corridor concept, which embraces all aspects of elimination of non-tariff barriers to trade, underpinned by the WTO Trade Facilitation Agreement.

2.4. Priority Area 2b: Energy

With regard to access to power and other energy resources, as depicted in Figure 2.4, 27.6% of people living in the African LLDCs had access to electricity in 2016, a percentage point increase of 3.3 as compared to 2014, when the Vienna Programme of Action was adopted. However, the African LLDCs still lag behind

FIGURE 2.4 Percentage of population with access to electricity



Source: World Bank World Development Indicators

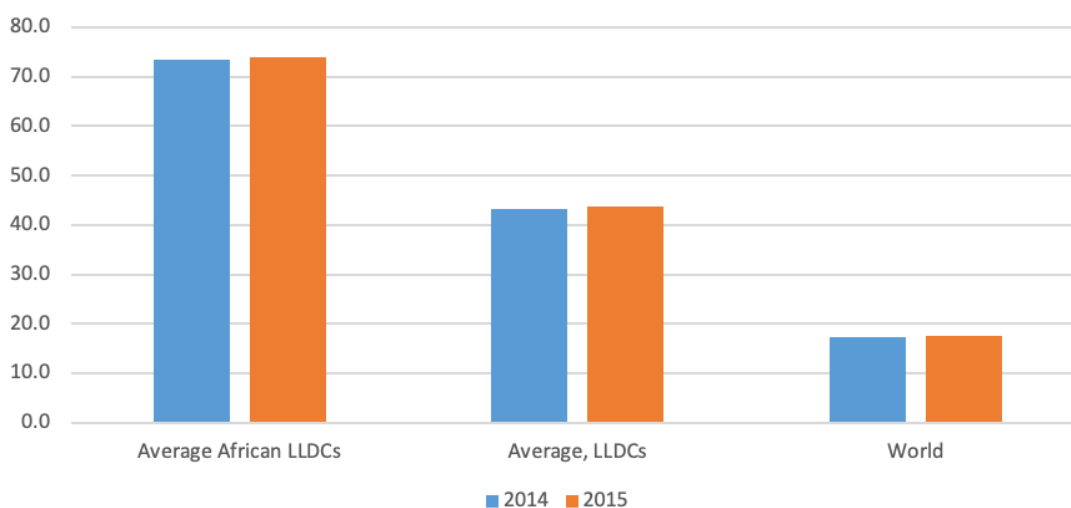
both to the overall LLDC Group and the world averages in this respect. There is, moreover, a significant rural-urban electricity divide in the African LLDCs. On average in 2016, 61.6% of urban-dwellers had electricity access, as compared to only 13.5% of those in rural areas.

On the use of clean fuels and technologies for cooking, only 13.7% of the population in the African LLDCs had access to clean fuels and technologies in 2016. More efforts are required to improve access to clean and sustainable energy source for cooking in LLDCs. However, efficiency in energy use in African LLDCs is improving. Energy intensity measured as megajoules per 2011 US\$ purchasing power parity decreased from 7.3 in 2013 to 6.8 in 2015. Sustained and the systematic adoption of energy efficiency policies in the region is required in order to keep the momentum. The renewable energy share in the total final energy consumption of the African LLDCs has improved marginally from 2014 to 2015. As shown in **Figure 2.5**

2.5, the renewable energy consumption for African LLDCs is much higher than the average for the LLDCs and the world average. This is because most of the energy source for LLDCs is from sustainable sources in particular hydro power. LLDCs in the region are encouraged to continue to expand sustainable sources of energy. High urbanization due to poor economic activity in rural areas is putting immense pressure on urban energy amenities. Given the urban-rural access disparities for water and energy, it is critical to scale up energy investments in the rural areas.

In order to enhance Africa’s generation capacity, a number of national power generation and cross border interconnector plans have been adopted, with most of the key projects adopted as part of the master plans for the Regional Economic Communities (namely COMESA, EAC, ECCAS, ECOWAS and SADC) as regional projects, supported by the Power Pools, Pan African Institutions, under the auspices of the Programme for Infrastructure

FIGURE 2.5 Renewable energy consumption (% of total final energy consumption)



Source: United Nations SDG Indicators Database

Development in Africa – PIDA. Ethiopia is working on a new dam. For Ethiopia’s power projects to make sense, access to international markets is important. A key part of the Ethiopian project is the planned interconnector line linking the power station to the Kenyan grid. Joint investment and taking advantage of economies of scale will also help lower the cost of power in Africa. At present the average tariff per kilowatt-hour in the region is US \$0.14, compared to US \$0.04 in Southeast Asia. Investing in regional grids and hydropower has served the regions billions of US\$ annually.

The power transmission network in southern Africa is rather well developed, leading the rest of the continent in generation capacity and enjoying relatively low costs for power. Despite the relatively high generation capacity in SADC, access to power is still surprisingly low (currently at 34 percent)³⁸ Noteworthy, East Africa and West Africa have embarked on major generation projects as well as interconnector projects, and both regions are investing more and more in infrastructure. Examples of interconnectors include the following: the North-South Power Transmission Project extending from Egypt, through, Sudan, South Sudan, Ethiopia,

³⁸ SAPP Report to SADC Energy Ministers, Mbabane, Swaziland, July, 2017

Kenya, Malawi, Mozambique, Zambia, and Zimbabwe to South Africa, with the Ethiopia – Kenya line being the most advanced having secured funding;

- i. the West African Power Pool (WAPP), Cote d'Ivoire - Liberia - Sierra Leone - Guinea (CLSG) Interconnection Project;
- ii. the Zimbabwe-Zambia-Botswana-Namibia Interconnector;
- iii. the Mozambique – South Africa Power Interconnector;

A number of generation plants have been successfully commissioned during the period under review, namely:

- i. the Kaleta Dam Project (240 MW) in Guinea (funded by China);
- ii. the Gibe III Project in Ethiopia (1 800 MW);
- iii. the Grand Ethiopian Renaissance Dam Project (6 000 MW), financed through domestic resources;
- iv. the Lauca Hydro-power project (670 MW) and Soyo thermal power project (750 MW) in Angola;
- v. the Morupule B thermal power project (120 MW) in landlocked Botswana;
- vi. the Kusile Thermal Power Project (1200 MW) in South Africa;
- vii. the Kinyerezi gas fired power project (240 MW) in Tanzania

The focus has been on preparation of projects to bankability as a key basis for the mobilization of resources. In order to augment power capacity in Africa, a number of renewable energy projects have been developed in almost all states, including LLDCs. Owing to long gestation periods of power projects, the pace of completion of these projects has been frustratingly slow. In order to bring further relief to LLDCs and other countries, the different regions have adopted the least cost project implementation options from the regional power plans, paving the way for power trading across countries through power wheeling agreements, although most states continue to seek self-sufficiency in energy supply in the long term.

According to the Infrastructure Consortium for Africa (ICA), regional power generation and interconnection projects play a significant role in the strategies for increased access to electricity in Africa. The Regional Economic Communities (RECs) play a pivotal role in promoting regional power projects and trade through their respective power pools. The ICA report

shows that all the power pools are experiencing concrete achievement in the process of implementing interconnection projects and generation projects with regional dimension. As far as power trade is concerned (primarily within power pools), electricity traded is still low although the Southern African Power Pool (SAPP) is in a more advanced stage of development with an active role played by the Short-Term Electricity Market (STEM) and more recently by the Day Ahead Market (DAM). Institutional set up and market rules and regulations have already been implemented in the power pools. It is gratifying to note, that REC Master plans and priority projects are available for all the power pools. With regard to funding, given the level of investment required, private sector participation is urged in the form of Public-Private-Partnerships. However, to date, the pace of mobilizing funding is slow for various reasons and innovative approaches are urgently required for mobilization of funding for regional projects.

Efforts are ongoing across Africa to identify those barriers which inhibit the widespread use of renewable energy, promote access to commercially available renewable energy sources as well as identify climate related modalities of financing. In 2015, SADC ministers responsible for energy approved the establishment of the SADC Centre for Renewable Energy and Energy Efficiency (SACREEE), located in Windhoek, Namibia as Host Country. This was after taking a cue from the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE). Both institutions currently coordinate the development of renewable energy in their respective regions. The outlook on renewable energy has been well documented in several regional studies outlining the status and opportunities for Africa and these are summarized below.³⁹

SADC Electricity access is at around 42% and lower than 10% in rural areas. The trend is an increase of access in all countries. In Southern Africa, States have greatly increased their commitment to renewable energy and energy efficiency, including important innovations to stimulate mini-grids and distributed renewable energy. Several other Member States – Angola, Botswana, Lesotho, Malawi and Eswatini – are increasing the role of renewable energy in their power supply systems. Despite significant progress, technical and financial barriers remain to the expansion of renewables, and some landlocked states such as Botswana, Malawi, Zambia and Zimbabwe continue to develop traditional, non-renewable energy sources such as coal to satisfy

³⁹The SADC Renewable Energy and Energy Efficiency, REN21, 2018.

rapidly increasing demand for electricity, as all four countries have massive coal reserves. Energy security as another area of policy concern and is being addressed through expanded interconnections and transmission capacity and accelerated generation capacity, allowing increased inter-country sales.

Southern Africa has also experienced significant growth in the renewable energy market as Member States include renewables in their generation capacity planning and has taken steps to integrate these technologies into their overall energy supply systems. The option of distributed generation and mini-grids as part of their rural electrification programmes has been adopted. Landlocked states that include Eswatini, Malawi, Zambia and Zimbabwe have met this challenge by developing specialized agencies to implement these policies. The rural electrification agencies that have been established hosted by the utilities draw their main source of revenues from the utilities themselves. Electricity access for some of the LLDCs, namely, Botswana (37%) and Eswatini (61%) is deemed fair, although for Lesotho (16%), Malawi (14%) and Zambia 4%, the figures are low.

In the East African Community, there is biomass dominance on energy supply, and among the LLDCs, access to electricity is generally very low, that is, Burundi (5%), Rwanda (21%), Uganda (15%). Electricity access is at the core of the energy sector in EAC partner states. As a consequence, electrification strategies are a main driver for energy policy and in particular for renewable energy development. The percentage of renewable energy in EAC increased significantly reaching commendable levels in Burundi (96.6%), Rwanda (86.2) and Uganda (85%). EAC enjoys immense renewable energy potential but has the lowest per capita electricity access in Africa and its strategy is to increase generation capacity. EAC states have resolved to ensure grid connected generation for renewable energy in their national plans.⁴⁰ Development of Renewable energy has also taken center stage in West Africa, led by ECREEE. A review of the status of renewable energy was undertaken in 2016⁴¹ and the status was summarized as below.

ECOWAS Member State's population currently uses solid fuels (predominantly wood and charcoal) for cooking, with national figures ranging from 98% in Guinea-Bissau, Liberia, Mali, and Sierra Leone, to 31% in Cabo Verde. Renewable energy technologies play

an increasingly important role in power generation in ECOWAS. Although hydropower has been used throughout the region for many decades, deployment of non-hydro renewables, including wind, solar, and biomass, is accelerating. Within ECOWAS, electricity has traditionally been provided through conventional grid systems. Hydropower is the region's most well established and widely used renewable energy technology and remains the only renewable technology deployed on a commercial scale in many Member States. With only 19% of the region's estimated 25 GW of hydropower potential exploited to date, significant opportunities for expansion remain. While the region has historically targeted large, rather than small or medium-sized hydropower projects, interest in small hydropower development has increased, with numerous projects now under way across the region. In the face of insufficient and unreliable central grid systems, mini-grids and off-grid technologies present cost-effective ways to generate electricity in remote communities. Solar technologies which include solar PV, solar lanterns, and solar water heaters are being used throughout the ECOWAS region to power community centres, health clinics, and individual homes, street lights, as well as for water heating, cooling, and drying. Renewable and hybrid mini-grids are increasingly being explored and implemented as solutions for rural electrification. The Malian Agency for the Development of Household Energy and Rural Electrification has been particularly active in developing mini-grids, including 21 hybrid PV-diesel projects totaling 2.1 MW.

RECOMMENDATIONS

Access to energy remains unacceptably low in African LLDCs. There is need to fast track projects although it is a known fact that energy projects are not only very expensive, but have long gestation periods.

- LLDCs and transit states need to accelerate preparation of power projects (including renewables) to enhance access to electricity to reduce the cost of doing business and enhance quality of life for citizens;
- Given the power shortfalls in some states on the one hand and excess power in other states, LLDCs need to scale up projects on cross border inter-connectors to enable LLDCs experiencing power shortfalls to purchase power from neighboring countries to ensure energy security.
- Means and ways need to be found to speed up

⁴⁰ EAC Renewable Energy and Energy Efficiency Regional Status Report, REN21, 2016

⁴¹ ECOWAS Renewable Energy and Energy Efficiency Status Report, REN21, 2014

signature of MOUs on regional projects, with the regional economic communities playing a greater role in facilitating early signature of these agreements.

- Support expansion and upgrading of supply, transmission and distribution infrastructure.
- Strengthen cross-border energy trade and transit through installation of new transmission lines.
- Increase investments in improving energy efficiency.
- In order to address challenges to access to power and energy resources, LLDCs need to intensify the implementation of Rural Electrification Programmes to promote Universal Access to electricity. These are funded through state fiscal mechanisms.
- Encourage private sector participation in the development of country's energy sector.
- Initiatives such as the light Africa should be supported and scaled up.
- LLDCs need to focus on skills and capacity development to ensure adequate project transaction management as well as post commissioning maintenance. It is critical to ensure

that development partners, among them the UN family renders support for capacity building at national, regional and continental levels;

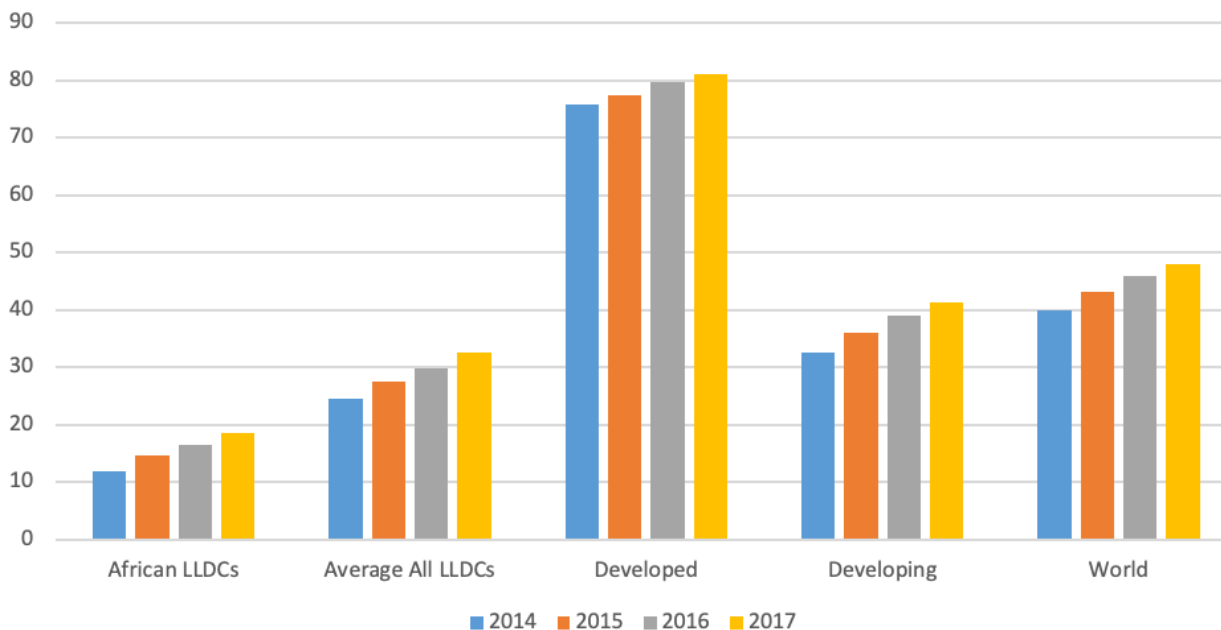
- LLDCs need to take full advantage of climate funding especially for energy, water and transport projects, as these have proved to be a formidable force in funding of project preparation and capital investment.

2.5. Priority Area 2b: ICT Connectivity

Information and communication technologies (ICTs) are essential for trade facilitation and for driving structural economic transformation in LLDCs. African LLDCs continue to make progress in the cyber space, with increase in the population with internet access as shown in **Figure 2.6**. However, the figure also shows that the African LLDCs lag behind the average of the LLDC group and that of the developing countries and the world average. This indicates the need for policies and regulatory frameworks to support increase in access to internet.

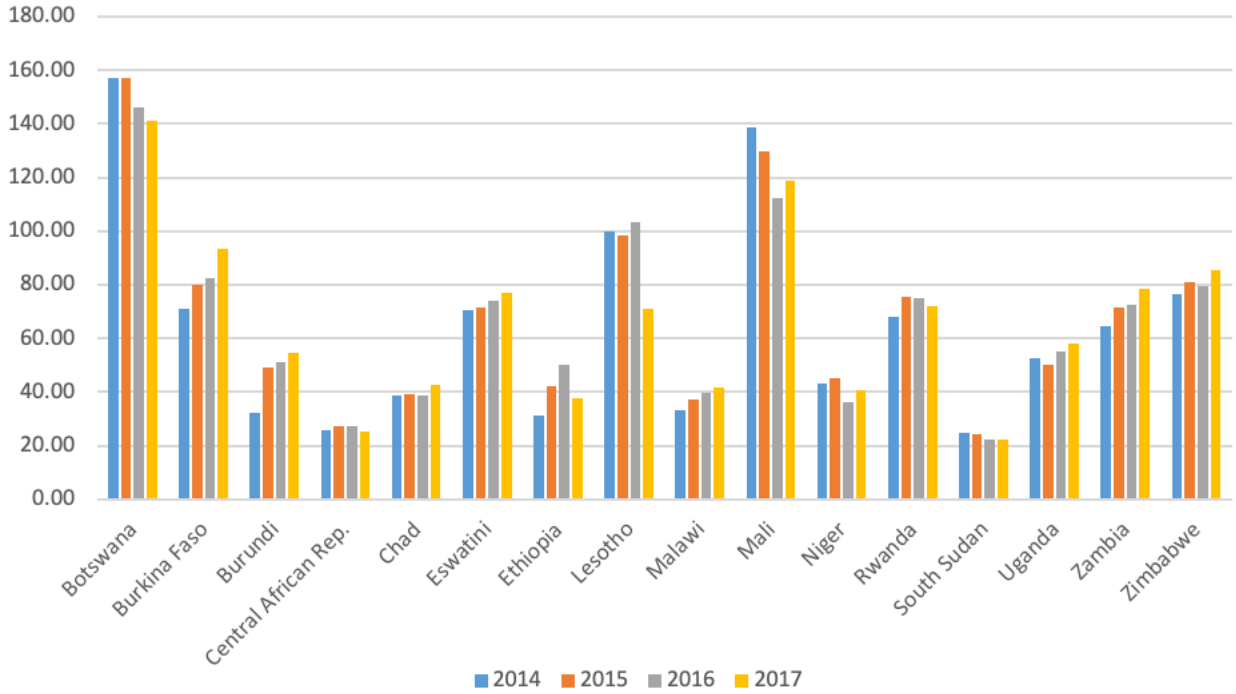
African LLDCs have witnessed an increase in mobile cellular subscriptions, with Botswana and Mali overshooting the 100 lines per 100 inhabitants (see **Figure 2.7**). However, the LLDCs lag significantly behind the world average for the 4G network coverage.

FIGURE 2.6 LLDCs Percentage Population Internet Access Levels 2014 - 2017



Source: ITU Data Base, 2019

FIGURE 2.7 Mobile Cellular subscriptions Per 100 per 100 inhabitants (2014 – 2017)



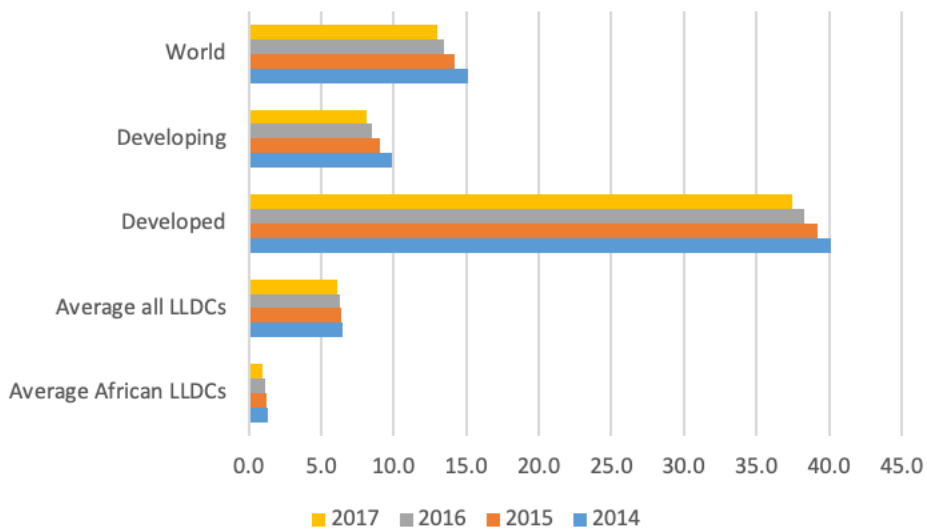
Source: ITU Database

Regarding fixed line access for LLDCs, **Figure 2.8** shows that the African LLDCs have low access rates to fixed telephone. On a year-on-year basis, the figure shows that fixed line telephony is losing ground as the number of subscribers per 100 inhabitants is declining for almost all LLDCs, and this can be attributed to the rise of cellular usage and the convenience it ushers for voice, social media and cyber applications. The African

LLDCs lag significantly behind the other groups.

The ITU explains that “fixed-broadband subscriptions are fixed subscriptions for high-speed access to the public Internet at downstream speeds equal to or higher than 256 kbit/s. This includes cable modem, digital subscriber line, fibre-to-the-home/building, satellite broadband and terrestrial fixed wireless broadband”. On average, the LLDCs as a group saw

FIGURE 2.8 LLDCs Fixed Telephone Subscription per 100 Inhabitants



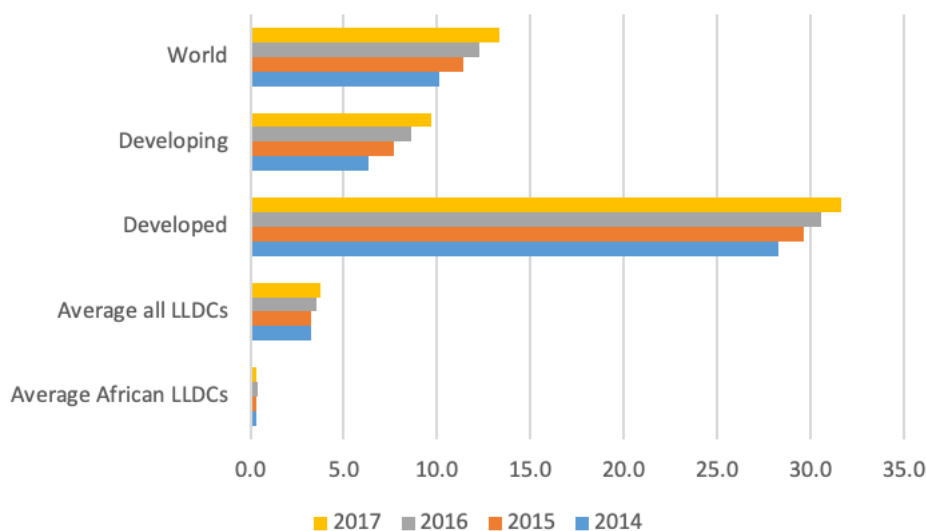
Source: ITU Database

a growth in these subscriptions from 3.2 per 100 inhabitants in 2014 to 3.7 in 2017. However, there has been no growth for the African LLDCs where it has remained around 0.3 per 100 inhabitants. As with telephone and mobile subscriptions, the African LLDCs continue to lag behind other categories of countries as shown in Figure 2.9.

One of the main reasons for low usage of the internet in the African LLDCs is the high cost of ICT access. The International Telecommunication Union (ITU) measures prices of ICT services across countries on

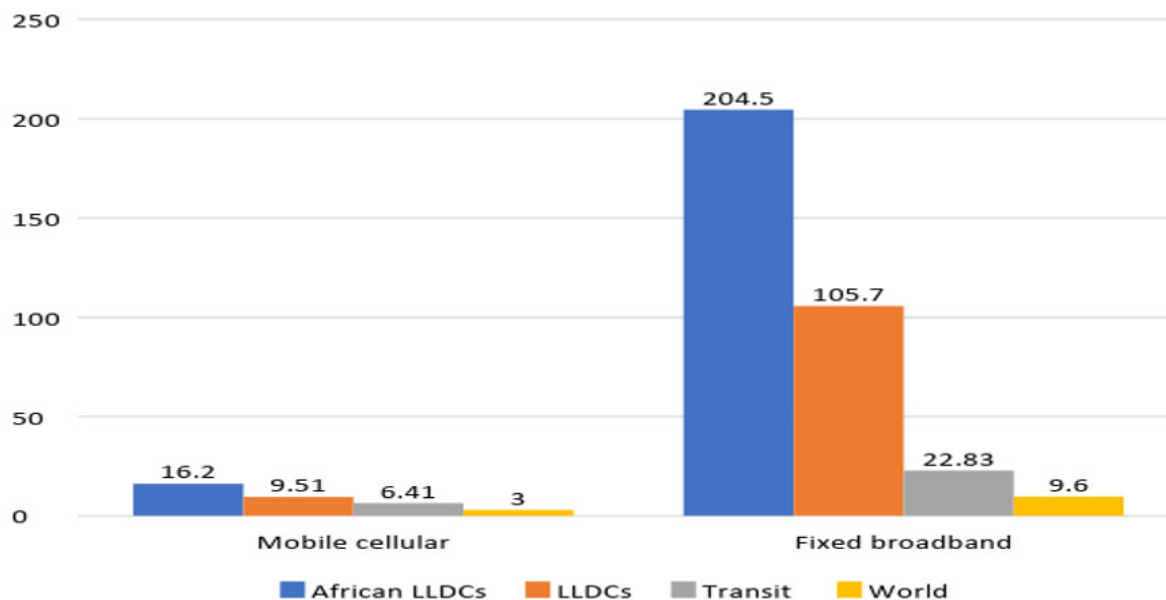
an annual basis, splitting its analysis into sub-baskets that include mobile cellular and fixed broadband. The price of each sub-basket service is measured as a percentage of gross national income per capita. Figure 2.10 compares the average price sub-baskets of African LLDCs, LLDCs in general, transit countries and the world for 2016, and it demonstrates that both mobile cellular and fixed broadband prices are highest in the African LLDCs. High ICT prices make it difficult for African LLDCs to harness the benefits of the digital economy and in particular the optimisation of emerging technologies that facilitate trade and spur sustainable development.

FIGURE 2.9 Fixed-broadband subscriptions per 100 inhabitants



Source: ITU Database

FIGURE 2.10 ITU ICT price sub-baskets (as a % of GNI per capita), 2016



Source: ITU ICT Prices 2017

These technologies include e-commerce, automated single windows, e-government and digital finance. Greater efforts are needed to lower the high costs of broadband faced by the African LLDCs. In addition, in order to benefit from the digital economies, especially through digital trade, it is important that the LLDCs develop new policies related to digital identity, data security and data privacy among others. Some LLDCs such as Rwanda are leading the way on the harnessing of digital trade through e-commerce.

Other constraints which prevent LLDCs from fully harnessing the developmental potential of ICT and digitalization include infrastructural gaps, low digital literacy rates, poor quality regulation and the high cost of accessing submarine cables.

To improve ICT connectivity in the region, a number of ICT projects and initiatives are being implemented under the leadership and guidance of African Union Commission. The implementation of the African Internet Exchange System (AXIS) project is financed by Euro-Africa Infrastructure Trust Fund and the Government of Luxembourg, whose objective is to keep Africa's internet traffic local to the continent by facilitating the establishment of national internet exchange points and regional internet exchange points in Africa. The activities completed by 2017 include the development of the East African Community (EAC) cross-border interconnection regulations and the Southern African Development Community (SADC) interconnection policy framework, establishment of eight (8) internet exchange points (IXPs) with financial grants to grow into Regional Internet Exchange Points (RIXPs). Two (2) national Internet Exchange Points were set-up, increasing the total number of internet exchange points on the continent from 18 to 34 Member States.

Good progress has been recorded with the implementation of the Pan African e-network (PAeN). In 2017, a satellite hub-earth station in Dakar and up to 150 VSAT equipment were installed connecting hospitals and universities. The African Union Commission has also led the process of promoting cyber security in Africa as well as launching the Dot Africa programme. Other projects include a framework for driving the digital transformation agenda in Africa, which has also been defined, with an initial focus on trade. Priority in 2018 focused on building capacity on the continent to access open data and data centers as a foundation for entrepreneurship and job creation.

RECOMMENDATIONS

- LLDCs and transit countries are encouraged to collaborate to establish ICT infrastructure, applications and services with the support of governments, private sector, development partners, multilateral financial and development institutions and regional banks.
- LLDCs are encouraged to create appropriate enabling environment including the necessary policies, legal and regulatory framework to support ICT development in particular the development of broadband including enhancement of digital skills, promotion of digital inclusion, increased adoption and utilization of ICT applications and services and to close the digital divide.
- LLDCs are encouraged to provide for mechanisms to facilitate the deployment of networks and services in non-profitable areas for operators, whether public investment, public-private scheme, or other types of incentive.
- There is need for LLDCs to work with cellular service providers with the view to reduce the cost of broadband access, which remains a major challenge, and can also be addressed in the medium term through increased licensing of service providers. The quantum of digital spectrum dividend that is available can still be exploited in Africa and should be offered to players through the enhancement of the multiplicity concept in the sector.
- The international community should provide capacity-building support to LLDCs improve the business environment in and the ability to attract and retain the private sector in the ICT.

2.6. Priority 3: International Trade and Trade Facilitation

a. International Trade

International trade is one of the key sectors for economic development as it provides a critical channel for the flow of finance, technology and services needed to further improve productive capacity in agriculture, industry and services and these are necessary for structural economic transformation. The 2030 Agenda for Sustainable Development recognizes international trade as an engine for inclusive economic growth and poverty reduction, and an important means to achieve the Sustainable Development Goals (SDGs). One of the primary goals of the VPoA is to foster partnerships that can support LLDCs to harness benefits from international trade. The VPoA aims, amongst other

objectives to promote increased participation in global trade, value addition, diversification and reduction of dependency on commodities.

Table 2.7 below depicts the concentration of exports for LLDCs, in areas where exports are dominant.

While trade is a known engine for growth and sustainable development, LLDCs remain marginalized largely because of great distances from the nearest seaports which translate into unsustainably high transit transport costs and delays. The LLDCs share of merchandise trade as a percentage of total world trade declined from approximately 1.18% in 2014 to 0.86% in 2016, largely due to a decline in global commodity prices. There was a slight increase to 0.91% in 2017. While the LLDCs' share of the trade is relatively low

compared to their transit counterparts, trade remains very important to their economies. In 2017, trade as a percentage of GDP for the LLDCs was on average 63%. In terms of the composition of exports from the LLDCs, their exports remain undiversified and mainly comprise of food items, ores and metals. The LLDCs therefore remain at the bottom of the value chains.

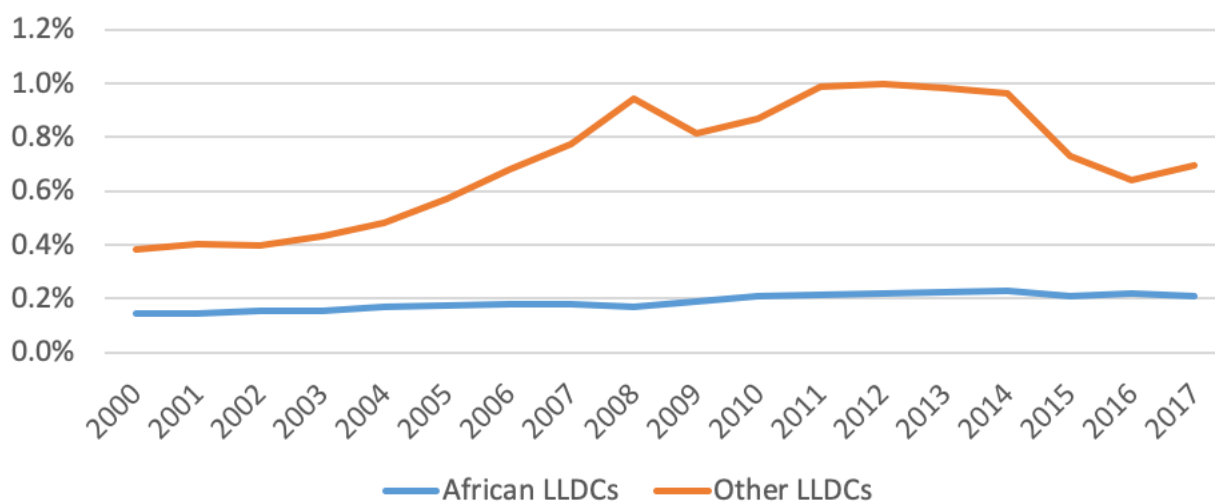
Assessing the African LLDCs trade performance, these countries maintained a relatively steady but low share of around 0.22 per cent, see **Figure 2.11** below. In 2017, they contributed around 0.21 per cent of world exports, a slight decrease from 2016.

Table 2.8 below depicts the top performing exports for African LLDCs.

Table 2.7. Concentration of exports

Leading Export types	African LLDCs where exports are dominant
Mineral fuels, lubricants and related materials	Chad, South Sudan, Uganda
Manufactured goods	Eswatini, Lesotho,
Crude materials, inedible, except fuels	
Food and live animals	
Chemicals and related products	
Machinery and transport equipment	CAR,
Miscellaneous manufactured articles	
Beverages and tobacco	Malawi, Zimbabwe
Animal and vegetable oils, fats and waxes	

FIGURE 2.11 Merchandise trade in African LLDCs vs. Other LLDCs



Source: ECA calculations based on UNCTADStat data

Table 2.8. Top Performing Exports for African LLDCs

Country	Main Exports	Share of top 5 Exports in Total exports (%) in 2017	Performance of Top 5 Exports Per LLDC
Botswana	<ul style="list-style-type: none"> • Diamonds, whether or not worked, but not mounted or set (excluding unmounted stones for pick-up) • Dust and powder of natural or synthetic precious or semi-precious stones • Insulated “incl. enamelled or anodized” wire, cable “incl. coaxial cable” and other insulated • Meat of bovine animals, frozen • Carbonates; peroxocarbonates “percarbonates”; commercial ammonium carbonate containing ammonium 	95.0	The top five exports account for 95 per cent of Botswana's exports. However, diamonds are a dominant source of export earnings with their contribution standing at 89 per cent in 2017.
Burkina Faso	<ul style="list-style-type: none"> • Gold, incl. gold plated with platinum, unwrought or not further worked than semi-manufactured • Cotton, neither carded nor combed • Coconuts, Brazil nuts and cashew nuts, fresh or dried, whether or not shelled or peeled • Unwrought zinc • Other oil seeds and oleaginous fruits, whether or not broken (excluding edible nuts, olives) 	93.6	Minerals and products of agriculture make up the top five exports.
Burundi	<ul style="list-style-type: none"> • Gold, incl. gold plated with platinum, unwrought or not further worked than semi-manufactured • Coffee, whether or not roasted or decaffeinated; coffee husks and skins; coffee substitutes • Tea, whether or not flavoured • Wheat or meslin flour • Niobium, tantalum, vanadium or zirconium ores and concentrates 	79.0	Gold, niobium, tantalum, vanadium ores and agricultural exports make the top five.
Central African Republic	<ul style="list-style-type: none"> • Tanks and other armoured fighting vehicles, motorized • Motor vehicles for the transport of goods, incl. chassis with engine and cab • Parts and accessories for tractors, motor vehicles for the transport of ten or more persons • Containers, incl. containers for the transport of fluids, specially designed and equipped for • Wood in the rough, whether or not stripped of bark or sapwood, or roughly squared (excluding 	65.4	<p>Diamonds, whether or not worked, but not mounted or set (excluding unmounted stones for pick-up ... used to be the lead export, followed by Wood sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or end-jointed, ... and Cotton, neither carded nor combed</p> <p>Switch or rise of manufactured tanks and motor vehicles is seen from 2015. It relegated previous resource based exports.</p>

Chad	<ul style="list-style-type: none"> • Petroleum oils and oils obtained from bituminous minerals, crude • Gold, incl. gold plated with platinum, unwrought or not further worked than semi-manufactured • Lac; natural gums, resins, gum-resins, balsams and other natural oleoresins • Other oil seeds and oleaginous fruits, whether or not broken (excluding edible nuts, olives, • Cotton, neither carded nor combed 	98.0	Top five exports account for up to 98% of total exports but petroleum is dominant. Alone it accounts for 85% of total exports in 2017 down from 95% in 2014. Exports fell from a peak of US \$3.86 billion in 2011 to US \$ 1.34 billion.
Eswatini	<ul style="list-style-type: none"> • Mixtures of odoriferous substances and mixtures, incl. alcoholic solutions, based on one or • Cane or beet sugar and chemically pure sucrose, in solid form • Prepared binders for foundry moulds or cores; chemical products and preparations for the chemical • Women's or girls' suits, ensembles, jackets, blazers, dresses, skirts, divided skirts, trousers • Wood sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or end-jointed 	71.7	Sugar is produced from sugar cane as a product of agriculture.
Ethiopia	<ul style="list-style-type: none"> • Coffee, whether or not roasted or decaffeinated; coffee husks and skins; coffee substitutes • Other oil seeds and oleaginous fruits, whether or not broken (excluding edible nuts, olives • Other vegetables, fresh or chilled (excluding potatoes, tomatoes, alliaceous vegetables, edible • Dried leguminous vegetables, shelled, whether or not skinned or split • Cut flowers and flower buds of a kind suitable for bouquets or for ornamental purposes, fresh 	71.0	Top exports are all All agricultural
Lesotho	<ul style="list-style-type: none"> • Men's or boys' suits, ensembles, jackets, blazers, trousers, bib and brace overalls, breeches • Women's or girls' suits, ensembles, jackets, blazers, dresses, skirts, divided skirts, trousers • T-shirts, singlets and other vests, knitted or crocheted • Men's or boys' shirts, knitted or crocheted (excluding nightshirts, T-shirts, singlets and • Women's or girls' suits, ensembles, jackets, blazers, dresses, skirts, divided skirts, trousers 	51.7	
Malawi	<ul style="list-style-type: none"> • Unmanufactured tobacco; tobacco refuse • Tea, whether or not flavoured • Oilcake and other solid residues, whether or not ground or in the form of pellets, resulting ... • Cane or beet sugar and chemically pure sucrose, in solid form • Groundnuts, whether or not shelled or broken (excluding roasted or otherwise cooked) 	80.8	Exports – top 5 all agricultural Unmanufactured tobacco; tobacco refuse Tea, whether or not flavoured Oilcake and other solid residues, whether or not ground or in the form of pellets, resulting ... has risen over the 4 years and in 2017 jumped from \$3.8 million to \$62 million. Overtaken sugar and groundnuts Tobacco and tea contribute 70% of exports.

Mali	<ul style="list-style-type: none"> • Gold, incl. gold plated with platinum, unwrought or not further worked than semi-manufactured • Cotton, carded or combed • Live bovine animals • Live sheep and goats • Mineral or chemical fertilisers containing two or three of the fertilising elements nitrogen 	86.0	There is a gap (2013 – 2015) but top five exports have accounted for more than 81 per cent and in 2010 and 2016 their share in total exports was 91 per cent.
Niger	<ul style="list-style-type: none"> • Palm oil and its fractions, whether or not refined (excluding chemically modified) • Rice • Petroleum oils and oils obtained from bituminous minerals (excluding crude); preparations containing • Uranium or thorium ores and concentrates • Pasta, whether or not cooked or stuffed with meat or other substances or otherwise prepared 	78.6	
Rwanda	<ul style="list-style-type: none"> • Gold, incl. gold plated with platinum, unwrought or not further worked than semi-manufactured • Coffee, whether or not roasted or decaffeinated; coffee husks and skins; coffee substitutes • Tin ores and concentrates • Tea, whether or not flavoured • Niobium, tantalum, vanadium or zirconium ores and concentrates 	87.8	Prominence of gold has risen starting in 2014 and became Rwanda's top export earner in 2016 and in 2017 displacing coffee and tea, Rwanda's traditional exports. Starting at 74 per cent of total exports in 2008, their share declined to reach 45 per cent in 2015 before rising to 46 per cent and jumping to 87.8 per cent. The rise in gold share has changed the structure leading to three minerals – gold, tin and niobium (with tantalum, vanadium and zirconium) in the top five export earners.
South Sudan	<ul style="list-style-type: none"> • Petroleum oils and oils obtained from bituminous minerals, crude • Ferrous waste and scrap; re-melting scrap ingots of iron or steel (excluding slag, scale and • Parts of aircraft and spacecraft of heading 8801 or 8802, n.e.s. • Turbojets, turbopropellers and other gas turbines • Wood charcoal, incl. shell or nut charcoal, whether or not agglomerated (excluding wood charcoal 	99.80	Not many exports, oil is dominant and oil exports alone account for 99.3%.
Uganda	<ul style="list-style-type: none"> • Coffee, whether or not roasted or decaffeinated; coffee husks and skins; coffee substitutes • Gold, incl. gold plated with platinum, unwrought or not further worked than semi-manufactured • Petroleum oils and oils obtained from bituminous minerals (excluding crude); preparations containing • Fish fillets and other fish meat, whether or not minced, fresh, chilled or frozen • Cane or beet sugar and chemically pure sucrose, in solid form 	44.4	Uganda's top 5 exports share has averaged about 31 per cent between 2012 and 2015 and has not been only higher than 40 per cent but increased to 35 per cent in 2016 and further to 44.4 in 2017. Uganda has a higher number of agricultural exports.

Zambia	<ul style="list-style-type: none"> • Copper, unrefined; copper anodes for electrolytic refining • Copper, refined, and copper alloys, unwrought (excluding copper alloys of heading 7405) • Unused postage, revenue or similar stamps of current or new issue in the country in which they • Sulphuric acid; oleum • Cobalt mattes and other intermediate products of cobalt metallurgy; cobalt and articles thereof 	77.7	Share of top 5 exports has been higher than 70 per cent since 2014 and in both 2014 and 2017 the contribution is 77 and 78 per cent. The value and share of unrefined copper copper anodes for electrolytic refining started rising significantly in 2015 while the share of refined copper and copper alloys has declined since 2015.
Zimbabwe	<ul style="list-style-type: none"> • Unmanufactured tobacco; tobacco refuse • Gold, incl. gold plated with platinum, unwrought or not further worked than semi-manufactured • Ferro-alloys • Diamonds, whether or not worked, but not mounted or set (excluding unmounted stones for pick-up) • Chromium ores and concentrates 	72.8	The value of unmanufactured tobacco exports has risen since 2012. From that point on the share of top five exports rose above 50% and has progressively risen. Apart from ferro-alloys, the three other minerals in Zimbabwe's top five exports are not substantially processed.

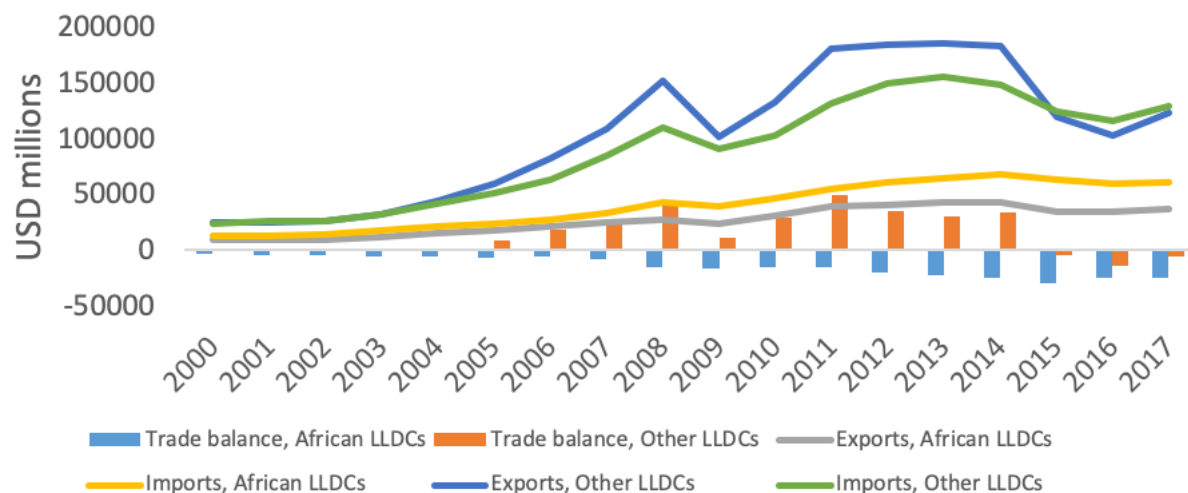
Source: Calculated from TradeMap - <https://www.trademap.org/Index.aspx>

The structure of the main exports does not show that much progress has been made with value addition. However, Central African Republic shows a significant rise in manufactured exports starting from 2015. The share of top 5 exports jumped from 30.8 per cent 2013 to 59.7 per cent in 2014 and further to 87.2 per cent in 2015 before declining in 2016 and 2017.

Figure 2.12 summarizes the development of merchandise trade for African LLDCs, compared to non-African LLDCs which on average increased from 2015. In 2017, African LLDC exports amounted to USD

37.3 billion compared to USD 35.1 billion in 2016. This pick up in trade reflects the improved global trade performance. In terms of imports, 2017 saw African LLDC imports increase to USD 61.4 billion from USD 59.8 billion in 2016. This 3 per cent increase was however more moderate than for the non-African LLDCs, which saw their imports increase by 11 per cent between 2016 and 2017. The African LLDC trade balance remained relatively stable at USD 24.2 billion deficit. Meanwhile the increased exports for non-African LLDCs drove a considerable reduction in their trade deficit.

FIGURE 2.12 LLDCs Import-Export Figures with Trade Balances



Source: ECA calculations based on UNCTADStat data

In March 2018, African countries signed a landmark trade agreement, the African Continental Free Trade Area Agreement (AfCFTA), which commits countries to remove tariffs on 90 percent of goods, progressively liberalize trade in services, and address a host of other non-tariff barrier. If successfully implemented, the agreement will create a single African market of over a billion consumers with a total GDP of over \$3 trillion. This will make Africa the largest free trade area in the world. The AfCFTA offer the opportunity for the LLDCs to expand their trade. It is also expected to further strengthen economic and financial ties between the LLDCs and the other countries in the region and will gradually increase the LLDCs share in intraregional trade. The share of intra-African trade for African LLDCs is also relatively high at 29 per cent, compared to the continental average of 18 per cent.⁴²

RECOMMENDATIONS

LLDCs continue to account for a negligible amount of global trade. It is important to note that Africa's exports to the rest of the world are mainly natural resources (fuel oil and minerals), which are vulnerable to price volatility. The LLDCs are by far importing more than they are exporting and therefore suffering from huge trade deficits and this further render them even more vulnerable. The exportation of the raw materials by these states deprive them of the benefits of beneficiation and value addition. This has slowed down economic development given low mean wages. African countries are already stepping up efforts to facilitate trade, especially intra Africa trade in the context of the AfCFTA. To enhance participation of the LLDCs into global trade there is need to:

- To push for intensification in industrialization in the LLDCs through linkages with other regional and global value chains to create a win win situation.
- The trade costs and delays remain a challenge and major impediments to the LLDCs' integration into global trade. It is evident that there is need to strengthen trade facilitation in the LLDCs and transit countries.
- Trade in services can improve economic performance and provide a range of traditional and new export opportunities and it is vital for structural transformation. Addressing barriers to international trade in services remains important in harnessing the development potential of the LLDCs.

- It is important to address tariff peaks, high tariffs, and tariff escalation, as well as non-tariff barriers imposed on manufactured goods from the LLDCs.
- The SMMEs form a large part of the private sector in the LLDCs and it is therefore necessary to enhance the capacity of the SMMEs to participate in international trade.

b. Trade Facilitation

Due mainly to their lack of direct access to the sea the LLDCs rely on their transit neighbors to reach the international markets. Trade facilitation is of great interest to LLDCs as their participation in international trade is severely constrained by inefficient procedures inside as well as outside of their territorial borders. Additional border crossings and long distances from major markets, coupled with cumbersome transit procedures and inadequate infrastructure, substantially increase transport costs and other transaction costs, eroding the competitive edge of landlocked developing countries' exports. Trade facilitation is therefore important to address their high trade transaction costs, improve efficiency and competitiveness, ease integration into regional and global value chains, and reduce time as a trade barrier. Studies indicate that the trade facilitation costs may be as high as 50% of the value of traded goods in some LLDCs. Inefficiencies and high costs in transit transport also have negative implications to the performance of the small and medium size enterprises (SMEs), which are important drivers of economic activity in the LLDCs and indeed within the continent. Undertaking trade facilitation reforms will go a long way in reducing transaction costs, increasing trade and customs revenue significantly, facilitating export competitiveness and attracting foreign investment.

The WTO Trade Facilitation Agreement (TFA) which entered into force in February 2017 estimates that the full implementation of the TFA could reduce trade costs by an average of 14.3% and boost global trade by up to \$1 trillion per year. The benefits are expected to be larger for the LLDCs. The WTO also estimated that the full implementation of the TFA would increase GDP growth by up to 0.5% annually. While great progress has been achieved with the ratification of the TFA by the LLDCs as alluded to earlier on, the level of implementation is still very low as demonstrated by the share of measures notified under category A⁴³ which is about 34% compared to 58.2% for developing

⁴² Ibid.

⁴³ Category A denotes TFA measures that a member is already implementing.

countries. For African LLDCs only 28% of the trade facilitation measures have been notified as category A measures.

In 2017, the United Nations Regional Commissions produced the second edition of the Global Survey on Paperless Trade and Trade Facilitation. While the sample size (16 African countries of which seven were LLDCs) does not allow for full extrapolation of the implementation rate for the continent, it is clear when comparing to global results that African countries lag behind. For the countries included in 2017, the implementation rate was around 51 per cent, relative to a global average of 60 per cent. Latin America reported 68 per cent and Southeast and East Asia 63 per cent. Regionally, according to the survey, trade facilitation measures relating to formalities tend to be more implemented (on average 64 per cent). On the other hand, costly cross-border paperless trade measures are less implemented, at 22 per cent. The results for the LLDCs largely reflect the regional pattern. Interestingly, most African LLDCs report a relatively high implementation rate for transparency measures, with most having an implementation rate above the regional average.

Africa as a region has accorded priority to implementation of trade facilitation initiatives to maximize trade opportunities for the region. Several initiatives are being implemented to facilitate trade in the region and some are outlined below:

i. One-Stop Border Posts

A One-Stop Border Post (OSBP) implies that goods and passenger vehicles only stop once at the border and exit one country and enter another at the same time. This results in a reduction in the time spent at, and costs involved in, border crossings. A number of countries in Africa have fully embraced the concept and aim to convert most, if not all, of their border posts to OSBPs. Converting a border post to an OSBP requires changes in border procedures (and thus changes to management strategies) and requires that appropriate legislation and infrastructure for information and communication technology (ICT) is in place. The best example of an OSBP is at Chirundu border post between Zambia and Zimbabwe, whose introduction reduced delays at the border from several days to hours for pre-cleared cargo. The Nakonde-Tunduma border post between Tanzania and Zambia is also operating as a OSBP.

In order to strengthen the implementation of OSBPs in East Africa, the EAC adopted the One Stop Border Posts Bill, and the East African Community Vehicle

Load Control Bills, and regulations to support the implementation of the two laws were also developed. East Africa has taken the lead with commissioning of OSBPs, strengthened by enabling legislation. Adequate parking needs to be provided at OSBPs, but it has also been argued that trade facilitation measures if efficiently managed, should result in very little parking at border posts.

The EAC embarked on OSBPs development programme and put in place a pilot programme to transform selected two border posts into OSBP with the support of the World Bank partnering with Trade Mark East Africa (TMEA). This led to the development of a number of the current OSBPs including Holili/Taveta; Lungalunga/Horohoro, Malaba/Malaba, Busia (Kenya –Uganda), Milama Hills/Kagitumba, Nemba/Gasenyei (Burundi); Ruhwa (Rwanda – Burundi); and Elegu (Uganda) – Nimule (South Sudan) border posts, among others. The Northern Corridor Secretariat developed a comprehensive corridor performance measurement framework for OSBPs. The OSBP at Malaba was completed around mid-2017, with immense impact expected once OSBPs are fully operational and ICT upgrades undertaken. Similarly, the EAC OSBP model has reduced transit time from Mombasa to Kampala from 18 days to four days, and from 21 days to 3 days for the Eldoret – Kampala section. The Kazungula OSBP between Botswana and Zambia will be completed in 2019 and will facilitate reduced dwell time for north and south bound traffic. The following table summarises the One-Stop-Border-Posts being executed under the auspices of NEPAD.

ECOWAS member states signaled their commitment to create joint border posts through signature of the Supplementary Protocol Act/SA.1/13. The commitment further entailed the need to reduce the number of check points along their corridor routes. This will enable ECOWAS to develop a Regional Border Management Manual for the use on immigration and security training institutions. The first ECOWAS OSBP was provided at CINKANSE (Burkina Faso/Togo border), thanks to the ECOWAS and UEMOA Joint Border Posts Program which has since seen 11 border posts completed since 2003. With support from the World Bank, four other border posts have been completed, namely, Noe-Elubo (Ghana/Ivory Coast border), Kodjoviakope (Togo/Ghana border), Hillacondji – Sanveekondji (Benin/Togo border) and Seme-Krake (Benin/Nigeria border). **Table 2.9** shows the OSBPs being implemented within the PIDA Programme.

Table 2.9 The type and location of OSBPs

OSBP	Type	Location
Pogo-Zegoua OSBP	Upgrade	Côte d'Ivoire, Mali
Colomue/Dedza OSBP	New	Malawi, Mozambique
Forbes/Machipanda OSBP	Upgrade	Mozambique - Zimbabwe
Nyamapanda/ Cuchimano OSBP	New	Mozambique - Zimbabwe
Rusizi/Bukavu OSBP	Upgrade	Burundi, Democratic Republic of Congo
Kidira/ Diboli OSBP	Upgrade	Mali, Senegal
Beitbridge/ Messina OSBP	Upgrade	South Africa - Zimbabwe
Martin's Drift OSBP	Upgrade	Botswana – South Africa
Mpondwe OSBP	Upgrade	Democratic Republic of Congo, Uganda
South Sudan/Sudan OSBP	Upgrade	South-Sudan, Sudan
Zobue/Mwanza OSBP	New	Malawi, Mozambique

Source: PIDA Database

ii. Overload Control

The harmonization of Axle Loads Limits and Vehicle Overload Control across member states was intended to ensure that vehicles operating on the road networks comply with the pavement design standards. Compliance would reduce damage to the road infrastructure and hence avoid heavy expenditure in maintenance or rehabilitation as roads fail to meet their design lives and would additionally, reduce the cost of doing business through reduced transit times and utilization of equipment. To enforce overload control measures, weighbridges that are strategically placed along the corridors are used to ensure compliance with axle load limits. Unfortunately, most of the weighbridges are static and there is no communication between different weighbridges. In order to preserve roads, overload control should be enforced. The concept of the weigh in motion weighbridges is only implemented in South Africa, to minimize delays. East and Southern Africa have reached some consensus on axle load limits, although some states would want zero tolerances on weigh bridges, and the majority subscribe to 2-5%.

iii. Harmonized Road User Charges

A programme is ongoing to harmonize cross-border road user charges in the Eastern and Southern African region, with the objective of harmonizing the same across Africa. This would reduce procedures across countries and reduce transit times, given the predictability of payments for access to road networks.

Road user charges have been introduced in all LLDCs, based on different parameters, namely fuel levy, toll charges, access charges, and although they differ from state to state, they are predictable for truckers to plan accordingly.

iv. Coordinated Border Management (CBM)

CBM has been introduced in Mozambique (Mutare/Forbes Border Post), Resanno Garcia (RSA/Mozambique), Mwanza/Zobwe (Malawi/Tanzania), DRC/Zambia (at Kasumbalesa), Botswana/Namibia on the Trans Kalahari Corridor, all as a pre-cursor to OSBP operationalization.

v. National Single Windows

National Single Window (NSW) is a process that allows traders to submit electronically only once, standardized information and documents to fulfill all imports, exports and transit regulatory requirements and all clearances and payments are done through the NSW process. A number of countries in Africa have implemented NSWs, such as Ghana, Senegal, Madagascar, Mozambique and Kenya. NSW has benefitted LLDCs linked to these countries, although adoption by the LLDCs would further reduce customs clearance and border dwell times.

For example, Ghana after introducing the NSW, realized an immediate decrease in clearance time by a factor of 5, and immediate increase in government revenue by 35% and an increase in the accuracy and consistence

of real-time trade data. The government benefits of establishing a NSW include substantial increase in Government revenues, real-time accurate trade data and statistics, better use of Government resources, foundations towards an efficient e-Government system and increased transparency and accountability encouraging trade compliance. The benefits of NSW to the private sector include accelerated cargo clearance, reduced duplication and errors, reduced cost of document handling, one-stop 24-hour window for information exchange with Government Agencies and access to accurate statistics. Most of the NSWs in Africa have been established through PPP on a build-operate-transfer basis such as in Mozambique, Madagascar, Ghana, DRC, Ghana, but others are built through donor support, for example in Rwanda.

vi. Implementation of the African Union SMART Corridor Concept

The Program for Infrastructure Development in Africa (PIDA) study has estimated that corridor inefficiencies in the African Regional Transport Infrastructure Network cost over \$75billion per annum which reduces African countries' intra-regional and international competitiveness. The African Union has undertaken a Scoping Study on the development and roll out of a SMART Corridor. PIDA has recommended that all Africa's transport corridors should be converted into SMART corridors to improve the corridor efficiency and reduce this cost. The SMART Corridor key attributes entail, among others the following:

- a. Monitoring of traffic movements along the corridor and providing real-time information to stakeholders to enable them to manage trade and transport facilitation processes.
- b. Paperless trade and transport administrative clearing procedures and logistics processes.
- c. Corridor Performance Monitoring System which is reliable and facilitates evidence-based interventions to improve corridor efficiency;
- d. Reduction of corruption in the transportation and clearance of cargo as well as reduction in transport costs and transit times. Of the four key defining characteristics of a SMART Corridor, ITS/ICT is the most critical and the newest.

The SMART Corridor concept initiatives embraces traditional trade facilitation measures but seeks to refine and reinforce the ongoing measures.

vii. The COMESA-EAC-SADC Tripartite Trade Facilitation Programme

The COMESA-EAC-SADC Tripartite set out to roll out trade facilitation measures across its membership

stretching from Cape to Cairo, with the view to harmonize such practices, and ultimately, harmonize the same across the Africa region. Some of the Tripartite trade facilitation measures are outlined below, and invariably promotes seamless movements of goods and persons across borders into LLDCs.

viii. The COMESA-EAC-SADC Tripartite Mechanism for Reporting, Monitoring and Eliminating Non-Tariff Barriers (NTB)

The Tripartite Mechanism for Reporting, Monitoring and Elimination of Non-Tariff Barriers is one of the key vehicles put in place to strengthen trade facilitation efforts, and has been deemed in some cases, as more important than further improvements in for example, enabling physical infrastructure. Should member states effectively eliminate NTBs, the gains in increased volumes of trade and attendant costs will indeed highly significant. These are regularly reported to the Tripartite Forum, and states are obliged to highlight their efforts and related progress in eliminating NTBs. In terms of implementation, regular reports on occurrences are captured for attention by the relevant authorities and stakeholders and designated authorities receive regular alerts on incidents. In East and Southern Africa this process is coordinated by TradeMark East Africa.

ix. Tripartite Trade and Transport Facilitation Program (TTTFP)

A 5-year Tripartite Trade and Transport Facilitation Program (TTTFP) whose overall objective is to facilitate the development of more competitive, integrated and liberalized regional road transport market in East and Southern Africa was launched in 2017. This project will ensure implementation of the Tripartite-agreed measures, among others, by providing technical capacity at national level necessary to ensure the domestication of these measures.

x. The COMESA Virtual Trade Facilitation System (CVTFS)

This is an ongoing project where the intention is to provide for an online system of tracking cargo and transport equipment along the designated corridors in the region. It involves the fitting of signal transmitting gadgets fitted on vehicles or containers and enables them to be tracked as they transit across the region. The CVTFS is a comprehensive system incorporating and integrating the features of other trade facilitation systems such as those for transit data transfer, regional customs bond guarantee, and electronic marketing systems. The CVTFS has been implemented in the following corridors/countries; Northern Corridor (Burundi and Rwanda); Horn-Corridor (Djibouti and Ethiopia); North-South Corridor (DRC, Malawi; Zambia

and Tanzania). Control Centres have also been set-up accordingly. COMESA has reported that the system is in operation, although other stakeholders believe the same objective can be better achieved through other approaches.

xi. Market Liberalization Measures

Market liberalization is considered to be a key trade facilitation measure. The process draws on work being done in other areas of the Comprehensive Tripartite Transport and Trade Facilitation Programme (CTTTFP) and entails assessment, development and harmonization of national and regional legal and institutional arrangements, framework for granting a permit or license in the territory of one state for the territory of the other state, and in transit across the territory en route to another country and market access. The process eliminates the permit system for foreign carriers and drivers as it allows cabotage and third country rule to come into effect. Implementation in the last few years has been mostly by SACU countries and the East African Community. LLDCs have benefitted from market liberalization as it introduces competition as well as prevents trans-shipment of goods from one carrier to another.

xii. Third-Party Vehicle Insurance

The Tripartite region has three third-party vehicle liability insurance schemes which provide cross border insurance to carriers. Three modes of payments obtain in the Tripartite, namely, cash payments at the border, Fuel Levy System and the COMESA Yellow Card System. Following consultations between COMESA, EAC and the SADC, it was resolved that the Yellow Card System would offer a sound basis for an effective instrument to facilitate cross border movement of vehicles, goods and persons, and that it would enhance the development of trade and transport in the region. In terms of implementation, to date 13 countries have implemented, and another six countries are in the process of operationalization, bringing them to nineteen and the rest may join by de-fault.

xiii. Tripartite Vehicle Regulations and Standards

The Tripartite member states are in the process of developing harmonized standards for vehicle fitness. A number of small studies are under way, addressing issues such as smoke emissions, vehicle registration standards, training of examiners, and bus overloading. To date, some vehicle standards have been harmonized for a number of countries and a few are remaining. Given the harmonization's achieved with dimensions

and weights, there is greater scope to rationalize and accord unification of critical dimensions across the Tripartite. Regarding implementation, the standards are going through adoption for implementation. However, seven countries that include Uganda, Malawi and Ethiopia have opted to implement the regulations and standards before adoption.,

IMPACTS OF TRADE FACILITATION MEASURES IN AFRICA

The EAC undertook a comprehensive study on cost and delays along the corridor value chain, and concluded that, among others, approximately 40% of the cost (financial and temporal) was attributable to the operations of two stop border posts in the region. The first OSBPs opened in 2017 at Malaba and Busia between Kenya and Uganda, and the operationalization of the OSBP introduced immense savings on transit times. The Northern Corridor Transit and Transportation Coordination Authority (NCTTCA), through the NCTTA Transport Observatory, monitors and reports on five broad aspects of the corridor performance, namely, volume and capacity; rates and costs; efficiency and productivity; transit time and delays; and intra-regional trade. The data is used to identify interventions that Member States have to undertake collectively and individually in order to reduce the cost of doing business and increase the speed of the movement of imports and exports along the Northern Corridor.⁴⁴ Following the measures, the Port of Mombasa put in place at least 50% of the arrivals at the Port Exit Gate within 13.5 hours of being offloaded from the vessels as compared to over 72 hours (3 days) and 144 hours (6 days) respectively for Home Use and Transit cargo. The Observatory also recorded a total average Port Dwell Time for all cargo of 60.63 hours (2.5 days).

Through the EAC Single Customs Territory, it has become possible to collect cargo at the point of entry and reduce the need for stopping cargo at each border as they enter individual member states. The Port of Mombasa also monitors Cargo Dwell Time, customs clearance time at its Document Processing Centre (DPC), as a result of which goods are processed much faster than before. Cargo Dwell Time at the Port of Mombasa reduced from 242 hours in January 2009 to 86 hours in April 2017. It has been less than 100 hours since September 2016. In addition, the customs clearance time at the DPC was reduced from 3 hours in January 2009 to 2 hours by March 2017. The time taken at Mombasa One Stop Centre has also improved from

⁴⁴The study was carried out following a directive of the 10th Northern Corridor Integration Project (NCIP) Summit, held in Kampala in June 2015.

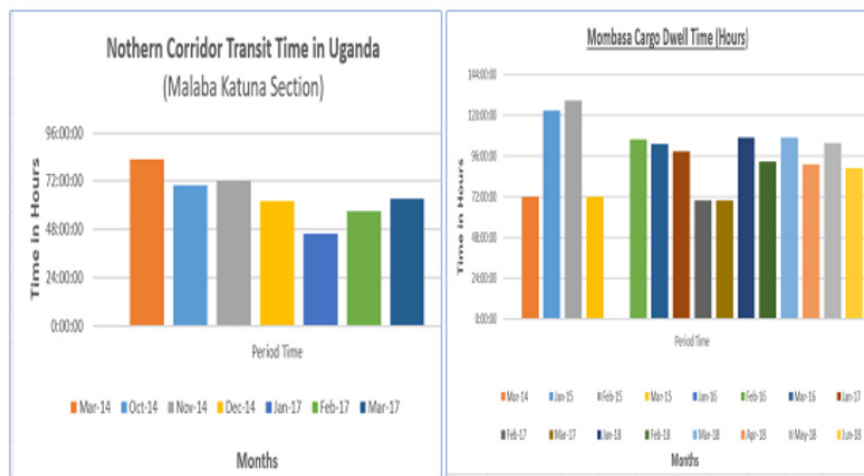
49 hours in January 2009 to 40 hours in March 2017. However, transit time within the port has not improved much, as it was 34 hours in November 2009 and by March 2017, it stood at 36 hours.

- Road transport projects have yielded improvements in transit time on the Northern Corridor. NCTTA also focuses on the Port of Mombasa, weighbridges along the route, OSPBs at Vingwaza, Manyoni and Nyakazani and the inspections entail revenue authorities, weighbridges and law enforcement agencies, with a marked reduction from the original 8 weighbridges and three revenue authorities' posts, as well as numerous police check points. The combined transit and transshipment traffic along the Northern Corridor exceed 2.2 million tonnes every year, and has been growing at a rate of 20 per cent annually. Transport costs account for about 30 per cent of the value of goods within the Corridor.
- The transit time between Mombasa and Malaba border post at the border with Uganda was reduced from 268 hours in January, 2010, but had been reduced to 116 hours in September, 2016, and to a further 107 hours by April, 2017. Similarly, trucks from Mombasa to Busia took 174 hours in April, 2015, and reduced to 92 hours by April, 2017. Upward on the route, transit time from the border (Malaba/Busia) to Kampala reduced from 44 to 32 hours. In addition, cargo movement between

Malaba to Katuna reduced from 83 hours in March 2014 compared to 63 hours in March 2017. **Figure 2.13** below depict the Northern Corridor transit times between Malaba and Katuna in Uganda between May 2014 and March 2017, as well as the Mombasa Port Cargo dwell time between March 2014 and June, 2018, which although slightly declined, requires further effort to push the time downwards.⁴⁵ However, data collection by the observatory is not undertaken on a regular basis. Transit time between the Port and the borders has been reduced from 5 days in 2014 to 3 days in 2018. The Corridor has set benchmarks for times taken to transit the various sections of its corridor, resulting in reduction of turn-around times.

The Central Corridor (anchored on the port of Dar es Salaam), linking it with Uganda and Burundi, has made significant infrastructure development particularly following NEPAD designating it as a PIDA Acceleration Project. The Central Corridor Transit Transport Facility Agency was established in 2006 by the five member countries, namely, Burundi, DRC, Rwanda, Tanzania and Uganda, in recognition of landlocked countries (LLDCs) to promote transit trade as an integral part of the UN General Assembly Resolution 56/180 of January, 2002. The improvements along the corridor has given rise to some reduction in transit times are depicted in **Table 2.10** below.⁴⁶

FIGURE 2.13 Northern Corridor Selected Transit Times for Uganda (2014 – 2017) and Port of Mombasa Cargo Dwell Times (2014 – 2018)



⁴⁵ Northern Corridor Transit and Transport Coordination Authority

⁴⁶ Annual Performance Monitoring Report for the Central Corridor, 2017.

Table 2.10 Transit times along the Central Corridor

Transit Section/Item	Previous	Current
Dar es Salaam – Exit Borders	5 days in 2014	3 days in 2018
Dar es Salaam Port Dwell time	7.2 days	7 days
Dar es Salaam – Mutukute Border	4.29 days	2.5 days
Dar es Salaam – Rusumo Border (Burundi)	3.55 days	2.5 days
Dar es Salaam – Kabanga Border (Burundi)	3.85 days	2.5 days
Visa Fees and Validity	\$100 for one-week duration	\$50 for one-month duration

Source: PIDA Database

RECOMMENDATIONS

It is critical to provide an enabling environment for the implementation of Cross-border trade facilitation measures. First, political will and commitment for implementation is key, and implementation should be supported by the highest political office in the country and identification of national/corridor champions would enhance the chances of success. Second, a legal framework is required in each country to enable cross border sharing of information along the Corridor countries and between the various stakeholders to support implementation of all components of the corridors.

Whilst Africa's transport connectivity infrastructure remains deficient in many ways, studies have shown that transit times from coastal states into LLDCs is largely impeded by complex border procedures, which is the basis for the implementation of trade facilitation measures.

- LLDCs and transit states need to demonstrate commitment to scale up the implementation of transport and trade facilitation measures. There is need to enhance cooperation between the LLDCs and transit countries to implement joint trade facilitation reforms including harmonize custom procedures.
- Progress has been achieved in putting in place Trade and Transport Facilitation Programs at regional and sub-regional levels. It remains important to accelerate the implementation of the programs. Adequate resources need to be provided to support their implementations including through Aid for Trade.
- LLDCs and Transit countries should mainstream trade facilitation into their national development strategies and plans.

- Countries should make greater use of ICT systems (ASYCUDA, Single Windows, etc.) and OSBPs.
- Both the transit states and LLDCs need to demonstrate political commitment by setting targets of performance to be regularly reported to Ministers responsible for transport and trade, who should take responsibility by committing to reduce non-tariff barriers to a bare minimum;
- LLDCs are encouraged to push for regional Parliaments which can legislate at regional level to enhance enforcement of agree provisions.
- LLDCs and Transit countries need to enhance transparency by creating online platforms where all the information relating to trade from all the various relevant agencies is aggregated under one roof and is readily available for searching and viewing.
- National trade facilitation committees need to be strengthened.

2.7. Priority 4: Regional integration and cooperation

REGIONAL INTEGRATION

Deepening regional integration is expected to result in higher gains for the smaller economies emanating from economies of scale created by the larger markets for goods and services, increase of free movement of people, movement of factors of production and ultimately higher economic output is realized. There is broad consensus that infrastructure is the bedrock of regional and market integration. In this regard, developing supportive trade carrying regional public infrastructure in key sectors (electricity, hard infrastructure, waterways, peace, and the environment) promotes enhanced competitive and productive industries and drives economic transformation.

The selection of regional integration as the driving force to economic growth and development presupposes that inherent tradeoffs are fully understood. Regional integration typically involves trade liberalization within the defined space and trade protection outside it. As a result, an assessment of regional integration must evaluate the extent to which the initiatives to promote regional integration has enhanced the involvement of LLDCs trade within their regional economic communities (RECs). Regional integration offers the highest payoffs for landlocked countries which are highly dependent on resource-based exports.⁴⁷ The African LLDCs belong to three/four major Regional Economic Communities (RECs) – COMESA, Economic Community of Central African States (ECCAS), ECOWAS and SADC. It has also been argued, that because of the overlapping membership, these LLDCs fall into about six RECs, in some cases overlapping and often contradictory regional economic communities, giving rise to an ineffective “Spaghetti bowl” of institutions with limited authority and analytical capacity underlined by huge political promises.

Regional integration is a commitment to legally-

binding treaties that highlight trade and other economic policy reforms required to make it a reality. Opportunities exist for a substantial increase in the share of intra-regional trade in total trade. Trade expansion is hindered by poor infrastructure and an array of non-tariff barriers. However, tariffs have been reduced within the framework of Regional Economic Communities so that they are no longer a determining factor in the level of intra-REC /intra-regional trade. The COMESA-EAC-SADC Tripartite has taken it a step further by establishing an FTA amongst the three RECs, accounting for 50% of African states. The Regional Integration Index for the RECs on the continent measures the extent of integration and has a component on country level aspects. Table 2.11 below shows the country level integration performance of the LLDCs. The table depicts integration performance as at a given point. With the implementation of the VPoA, the extent is expected to change. On trade integration, the likely change over the period of implementation is the value of exports.

The Regional Integration Index calculated and published in 2016 shows the extent of integration by

Table 2.11. Country Level Integration Performance of LLDCs, 2016s

	Country Level Integration Performance					Regional Level Integration performance				
	Trade Integration Index	Regional Infra-structure Index	Productive Integration Index	Free Movement of People	Financial & Macro-economic Integration	Trade Integration Index	Regional Infra-structure Index	Productive Integration Index	Free Movement of People	Financial & Macro-economic Integration
Botswana	0.61	0.82	0.17	0.60	0.59	0.51	0.50	0.35	0.53	0.40
Burkina Faso	0.47	0.31	0.13	0.76	0.98	0.35	0.28	0.25	0.48	0.56
Burundi	0.52	0.51	0.49	0.15	0.33	0.57	0.44	0.45	0.27	0.34
Central African Republic	0.18	0.10	N/A	0.26	0.94	0.35	0.28	0.25	0.48	0.56
Chad	0.04	0.09	0.17	0.30	0.98	0.35	0.28	0.25	0.48	0.56
Eswatini	0.47	0.44	0.49	0.39	N.A.	0.57	0.44	0.45	0.27	0.34
Ethiopia	0.18	0.40	0.34	0.07	0.16	0.57	0.44	0.45	0.27	0.34
Lesotho	0.54	0.29	0.07	0.60	0.42	0.51	0.50	0.35	0.53	0.40
Malawi	0.57	0.48	0.50	0.29	0.21	0.57	0.44	0.45	0.27	0.34
Mali	0.54	0.25	0.17	0.76	0.97	0.35	0.28	0.25	0.48	0.56
Niger	0.48	0.29	0.19	0.76	1.0	0.35	0.28	0.25	0.48	0.56
Rwanda	0.60	0.43	0.42	0.33	0.46	0.57	0.44	0.45	0.27	0.34
South Sudan	N.A.	0.76	N.A.	0.11	0.05	0.50	0.53	0.43	0.45	0.25
Uganda	0.75	0.30	0.61	0.52	0.43	0.57	0.44	0.45	0.27	0.34
Zambia	1.00	0.44	0.61	0.44	0.34	0.57	0.44	0.45	0.27	0.34
Zimbabwe	0.65	0.47	0.36	0.40	0.40	0.57	0.44	0.45	0.27	0.34

Source: Africa Regional Integration Index (<https://www.integrate-africa.org/rankings/country-profiles/zimbabwe/>)

⁴⁷ Rethinking Trade Preferences : How Africa can diversify its imports, Collier, P. and Venables, A.J., 2009

member countries to the different RECs around the continent. It rates and ranks integration countries within a region. The five key integration areas are trade through liberalization, regional infrastructure, production, free movement of people and financial and macroeconomic integration. These are illustrated in Table 2.12 below. The RECs where each LLDC is being compared are shown on the right of the table, and their score cards demonstrate mixed fortunes.

Countries like Botswana, Rwanda, Zambia, Niger and Mali fare fairly well compared with the rest.

There is enough evidence that regional integration is a key vehicle for the African continent to raise its competitiveness, diversify its economic base and create enough jobs for its young, fast-urbanizing population. It is argued that the future economic growth of states will depend on the trade architecture

Table 2.12. Rankings of LLDCs in the REC Integration

Country	Main REC for Regional Integration Performance	Ranking in the Main REC	Other REC Membership	Ranking
Botswana	SADC	2		
Burkina Faso	CEN-SAD	7	ECOWAS	
Burundi	COMESA	12	EAC	
Central African Republic	CEN-SAD	22	ECCAS	4
Chad	CEN-SAD	4	ECCAS	9
Eswatini	COMESA	13	SADC	5
Ethiopia	COMESA	19		
Lesotho	SADC	10		
Malawi	COMESA	11	SADC	11
Mali	CEN-SAD	6	ECOWAS	
Niger	CEN-SAD	5	ECOWAS	4
Rwanda	COMESA	8	EAC	3
South Sudan	IGAD	7	COMESA	
Uganda	COMESA	3	EAC	2
Zambia	COMESA	2	SADC	4
Zimbabwe	COMESA	7	SADC	6

amongst countries, with the WTO playing a pivotal role in managing multilateralism in trade. Given the slow pace of integration, arising from protracted trade and related negotiations, African states continue to count the costs of non-integration, compared with other regions that have achieved enlarged markets, elimination of trade barriers, sound infrastructure connectivity and reduced cost of doing business. African states, however, resolved to establish the AfCFTA given that amongst the regional blocs, the Free Trade Area is the minimum level of market integration that has been achieved. With the coming of AfCFTA, it is expected that intra-African trade will continue to grow among African countries as regional integration continues to serve as a useful vehicle for reducing some of trade barriers, paving a way and creating a conducive environment for private sector to operate. Regional integration is also key in attracting more foreign direct investments in the many African countries. For the LLDCs, regional

coordination plays an integral role in efforts to achieve economies of scale for infrastructure investments across borders, and to reduce transit costs through harmonized and consolidated transit procedures.

The signing of the AfCFTA marks significant progress on the road map for Africa's regional integration vision, as laid out in the Abuja Treaty, which foresees the eventual establishment of an African Economic Community. Furthermore, collective regional initiatives are imperative for creating an enabling environment for development, improving export competitiveness and attracting business into African landlocked developing countries. African LLDCs have become more active participants in regional trade agreements and economic blocks as each of these countries participate in at least one or more regional or bilateral agreement/arrangement. The LLDCs' share of intra-African imports ranges (with exception of one LLDC)

between 13% and 58%. In addition, on average, 56% of intra-African imports come from within the same REC, whereas this share is over 70% for 11 of the 16 African LLDCs.

Implementation of the AfCFTA foresees the reduction of tariffs and elimination of non-tariff barriers since the agreement contains provisions for the benefit of landlocked developing countries, such as those on trade facilitation, transit and customs cooperation. The successful implementation of the AfCFTA is therefore imperative for the African LLDCs and can facilitate their integration into regional value chains as well as expand their trade capabilities. African landlocked countries tend to be disadvantaged in terms of industrialization because of the higher costs of freight and unpredictable transit times. This hampers integration into global value chains and de-links such economies from world markets, as modern manufacturing relies on the import and export of components through regional and global value chains. Because of this sensitivity to the ease with which they can access port facilities in neighbouring coastal countries, the AfCFTA provides particular benefits: in addition to reducing tariffs, it includes provisions on trade facilitation, transit and customs cooperation. These benefits have been well recognized, as all African LLDCs, with the exception of Burundi, signed at least the Kigali Declaration. 12 LLDCs signed the consolidated AfCFTA agreement. 11 also signed the protocol for free movement of persons.

The achievements attained during the early phases of the negotiations going up to 2016 included the establishment of the dedicated AfCFTA Support Unit to provide technical and negotiating assistance to countries as well as secretarial and technical support to the AfCFTA negotiations structure, implementing a capacity building program for those involved in the negotiations, establishment of a CFTA awareness creation programme, establishment of technical working groups and conducting technical studies. The negotiation modalities provided clear guidelines to the negotiations, which included: Agreement on modalities for AfCFTA Trade in Goods Negotiations; Agreement on modalities for AfCFTA Trade in Services Negotiations; Signing of the AfCFTA Agreement.

REGIONAL COOPERATION

Regional Economic Communities create an enabling environment for investment, business performance and policy predictability. To this end, the RECs have developed harmonised technical standards, policy, regulatory and legislative frameworks for the harmonised operation of transport and delivery of

infrastructure and energy services. Infrastructure remains an important driver and enabler of regional integration. State parties are required to develop and commit to domesticate and implement the agreed provisions for the common good of all regional players. It is also critical to promote cooperation between member states in a REC as well as between RECs, sighting the example of the COMESA-EAC-SADC Tripartite, whose programmes cover cooperation and harmonisation in infrastructure, trade and customs, industrialisation and free movement of persons.

Within the RECs, ICT and Energy regulatory associations have been established, to assist states with development, adoption and domestication of harmonised regulatory frameworks. In turn, states are required to establish national energy and ICT regulators to serve the enforcement and domestication of agreed harmonised regulatory frameworks and guidelines. The agreed provisions on facilitating access to energy, corridors and ICT connectivity for LLDCs are discussed at length elsewhere in the report. Examples of cooperation in energy and transport are also illustrated in the relevant sections, including cross border interconnectivity plans as adopted. Most of the key projects have been adopted as part of the master plans for the Regional Economic Communities (namely COMESA, EAC, ECCAS, ECOWAS and SADC) as regional projects, supported by the Power Pools, Pan African Institutions, under the auspices of the Programme for Infrastructure Development in Africa – PIDA. This has enhanced the connectivity of LLDCs to both transit countries and the rest of the world.

As a way forward, a number of issues being pursued within the framework of the AfCFTA include:

- Conclusion of outstanding issues on modalities for tariff liberalization;
- Development of Appendix IV on Rules of Origin;
- Conclusion of outstanding issues in the Annex on Rules of Origin;
- Work related to negotiations on Trade in Services
- Finalization of Guidelines for implementation of Trade Remedies;
- Necessary work to ensure preparedness in the implementation of the Annexes;

CONCLUSION

There can be no doubt that for LLDCs to prosper economically, export led growth is the key vehicle to achieve this feat. The report recognizes the achievements that have been made at regional and continental levels to achieve deeper market integration.

Besides industrialization, it is key that the regional FTAs and Common Market formations be concluded and that all states sign up on their offers with urgency.

- LLDCs should endeavor to sign up to the AfCFTA without delay, in order to enhance intra-Africa trade and stimulate the much-needed manufacturing and economic development, as measured by GDP per capita.
- LLDCs should also lobby coastal transit states to sign up to the AfCFTA which would also address the inherent non-tariff and tariff barriers to intra-Africa trade.
- LLDCs should make efforts to accelerate and champion deeper market integration at the regional and continental levels, as this paves the way for greater facilitation of movement of goods across the regional blocs and ultimately the continent, given that the key tenets of the WTO TFA are embedded in market integration provisions, with LLDCs the key beneficiaries.
- Given that the RECs are the AU pillars for regional integration, it is critical that both transit and LLDCs follow through their commitments towards the ongoing regional market integration process in order to realize the full benefits of the process of regionalism.

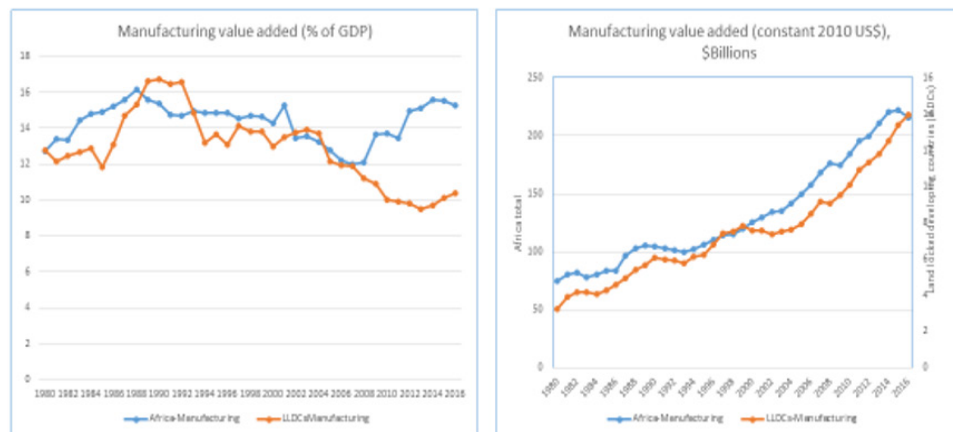
2.8. Priority 5: Structural economic transformation

Structural transformation involves the shift of productive resources from low productivity primary activities toward high productivity manufacturing

activities. It is measured by employment and value-added shares of sectors in total employment, total value-added increased productivity and employment of technology. Industrialization is an important driver of structural transformation: expanding manufacturing production and exports and increasing their sophistication while moving labour out of low-productivity agriculture into higher productivity manufacturing (ACET, 2014). This has been the case with many countries in Asia, but not in Africa. As has been the case with many African economies, many LLDCs in Africa have seen a decline in the share of manufacturing in GDP and in employment, while the services sector has been the strongest driver of growth, rising from 45 per cent of value added in 2000 to 50 per cent in 2016.⁴⁸ While both manufacturing and agriculture have declined from 13 per cent and 28 per cent to 10 per cent to 26 per cent, respectively over the same period. After nearly two decades of decline in the share of manufacturing value added in GDP both in LLDCs and Africa as a whole, the trend changed in 2007, with Africa as a whole experiencing an increase while it declined further in LLDCs (Figure 2.14, left panel). This demonstrates the LLDCs' limited capacity to produce and export manufactured goods. The dependence of the LLDCs on primary commodities makes them vulnerable to the instabilities in commodity prices. Greater efforts are required to promote value-addition, diversification and industrialization.

A robust industrialization programme is one of the surest ways for LLDCs to adequately achieve Agenda 2063 and Sustainable Development Goals. Characteristically, the outputs of the industrial sector in Africa are heavily concentrated on low technology

FIGURE 2.14 Africa's manufacturing value added as a share of GDP and in constant prices, 1980–2016⁴⁹



Source: Calculations based on data from World Bank, (2018).

⁴⁸ ECA calculations based on data from World Bank (2018).

⁴⁹ This excludes data from Mali, Niger and South Sudan due to unavailability of data.

products such as food, textiles, clothing, footwear, etc. Africa requires an acceleration of industrial development and diversification of the economy to meet the challenges of development and achieve the Sustainable Development Goals (SDGs) as well its socio-economic objectives.

The African Union, in consultation with other Pan African institutions, launched the Accelerated Industrial Development Plan for Africa (AIDA) in 2008. The key objective of the programme is to shift from reliance on natural resources and low cost labour to increased industrialization and productivity of the key factors of production, that is, both labour and capital, and lift the growth rate and GDP of states from 4% to 7%, ultimately increasing the manufactured exports to at least 50% of exports, comparing with 60% for East Asia. Similarly, it is proposed to increase the share of industrial employment to 40% of total employment by 2020 and ensure smart technological catch-ups. This entails building a construct for industrialization involving the governments, private sector, Civil Society Organizations (CSOs), development partners and labour. It has to be recognized that private sector remains the key driver for industrialization, with the African countries ensuring the creation of an appropriate enabling environment for industrial development and growth.

Based on the Plan, the Action plan for AIDA was developed to guide the implementation of this

programme. The Regional Economic Communities, on their part, have also taken the opportunity to develop their own industrialization strategies, and so has the Tripartite group of member states (constituting half of Africa) has put in place an Industrialization Pillar to guide their member states on implementation of their industrialization programmes. A number of priority development pathways associated with specific regional and global value chains have been identified, and these include: Agro-processing; Minerals beneficiation; Pharmaceutical industries value chains; Capital goods manufacturing; Forestry products; and Service Cluster. The AIDA has been largely supported by the United Nations Industrial Development Organization (UNIDO) and UNECA, supported by some key partners active in the sector.

LLDCs have taken steps to implement measures aimed at economic structural transformation, and in so doing, put in place policies and strategies for structural transformation, some before the VPoA adoption and others during the same. **Table 2.13** below depicts the progress LLDCs have made in this regard.

Only Eswatini has an industrial policy developed within the same time frame with VPoA. Most African LLDCs have not completed the design of industrial policies that emphasize structural transformation as they operate with policies formulated more than 20 years ago as depicted above. However, a few have formulated and are implementing industrial policies. Others

Table 2.13. Status of policies, plans and strategies for structural transformation

Country	Policy, Plan or strategy	Date or Period
Botswana	Industrial Development Policy for Botswana	1998
Burkina Faso	National Plan for Economic and Social Development (PNDES)	2016 - 2020
Burundi	Burundi Vision 2025	2011
Central African Republic		
Chad	Action Plan for the Elaboration of the Economic Diversification Strategy	2018
Eswatini	Industrial Development Policy	2015 - 2022
Ethiopia	Ethiopian Industrial Development Strategic Plan	2013-2025
Lesotho	Industrialization Master Plan	2007-2010
Malawi	Integrated Trade and Industry Policy	1998
Mali		
Niger		
Rwanda	National Industrial Policy	2011
South Sudan		
Uganda	Draft Industrial Policy Validated	October 2018
Zambia	Commercial, Trade and Industrial Policy	2009
Zimbabwe	Drafting the new Industrial Development Policy, National Trade Policy and the National Export Strategy	2018 - 2019

Source: Compiled from internet sources

have moved to target strategies for specific aspects of industrial policy. For example, the Government of Chad in collaboration with the Economic Commission for Africa (ECA) in 2018 initiated work on developing the Action Plan for the Elaboration of the Economic Diversification Strategy.⁵⁰ In this regard, there is a Technical Committee on Economic Diversification under the Minister of Economy and Development Planning. Deepening education in Science, Technology, Engineering and Mathematics (STEM) and offering more access to Technical and Vocational Education and Training (TVET), was identified among the key enablers of the Strategy. The implementation of the pillars of the economic diversification strategies lacks an overarching policy on industrialization and structural transformation. Diversification is an important contribution towards transformation and through policies listed above, there is need for efforts to be made to create special economic zones, industrial parks and growth clusters along transport corridors.

Central African Republic is implementing an “Industrial restructuring and upgrading programme” under the EU funded “Programme to support trade and economic integration” (PACIE) which is part of EPA implementation.⁵¹ The objective is to achieve a sustainable integration into the world economy. A number of LLDCs are reviewing and revising their industrial policies. In some cases, countries are designing new industrial policies in line with the specific conditions they are trying to address. According to UNDP (2018), Uganda is finalizing the drafting of its industrial policy.⁵² In Zimbabwe, there has also been discussions on a new industrial policy.⁵³

The state and age of industrial policies being used in many African LLDCs indicates that progress has been

slow on this front. However, there is a new wave in the design of industrial policies. UNIDO together with GIZ developed toolkits on Enhancing the Quality of Industrial Policies (EQUIP) and training is offered to policy makers in the industrial sector on how to use the toolkit.⁵⁴ The next set of industrial policies are likely to incorporate the crucial aspects of structural transformation strategy.

PROGRESS MADE TO INCREASE VALUE ADDITION IN THE MANUFACTURING AND AGRICULTURAL SECTORS

The lack of progress with designing new industrial policies incorporating strategies for diversification also affects the aspects on value addition. Value addition can increase on the basis of the strategies pursued within industrial policies. In the absence of policies, there may be other initiatives. An analysis of the share of manufacturing and agriculture value added in GDP can reveal whether or not value addition is increasing. In addition, an analysis of the growth of value addition in manufacturing and in agriculture can also reveal the form of developments. **Table 2.14** below shows the trends in the share of agriculture and manufacturing value added and **Table 2.15** also below shows the growth rates of agriculture and manufacturing value added for African LLDCs, where data is available.

The value added from agriculture is generally high except for Botswana, Eswatini, Lesotho, Zambia and Zimbabwe where it is around 10 per cent. The agriculture share has been stable except in the Central African Republic where there has been a steady decline. However, between 2014 and 2017, the level has remained at around 40 per cent. Nothing in these figures suggests that the changes in value added from

⁵⁰ UNECA (2018) Key points for Chad's industrialization and economic diversification hatched, <https://www.uneca.org/stories/key-points-chad%E2%80%99s-industrialization-and-economic-diversification-hatched>

⁵¹ UNIDO (2018) Industrial restructuring and upgrading programme in Central Africa, <https://www.unido.org/our-focus/advancing-economic-competitiveness/upgrading-businesses-and-industrial-infrastructure/industrial-restructuring-and-upgrading-programme-central-africa>.

⁵² UNDP (2018) Uganda's draft National Industrial Development Policy validated. http://www.ug.undp.org/content/uganda/en/home/presscenter/articles/2018/Ugandas_draft_National_Industrial_Development_Policy_validated.html.

⁵³ The Chronicle 5 October, 2018: “Zimbabwe to unveil key industrial policies” quoting the President. <https://www.chronicle.co.zw/zimbabwe-to-unveil-key-industrial-policies/>

⁵⁴ In March 2019, policy makers from eight SADC Member States received training. At the end of the training the industrial experts had developed roadmaps to determine their next steps – either design new industrial policies, review and revise or implement current industrial policies.

Table 2.14. Trends for share of manufacturing value added in GDP (%) for African LLDCs

Country Name	2009	2010	2011	2012	2013	2014	2015	2016	2017
Botswana	6.3	6.4	5.8	5.9	5.8	5.3	5.8	5.2	5.1
Burkina Faso	8.4	7.2	7.0	6.8	5.3	6.3	6.6	5.4	5.5
Burundi	..	..	..	..	..	..	..	..	..
Central African Republic	6.4	6.3	6.2	6.1	8.1	7.8	6.8	..	..
Chad	1.0	1.0	1.7	2.1	2.7	2.7	2.8	3.0	..
Eswatini	34.8	32.5	31.7	31.4	29.8	30.8	31.8	31.0	30.1
Ethiopia	3.9	4.0	3.7	3.4	3.7	4.0	4.4	5.6	5.6
Lesotho	17.4	12.7	12.0	10.8	10.6	12.0	14.6	15.7	13.7
Malawi	10.4	9.9	10.1	9.3	9.6	9.5	9.6	9.5	9.4
Mali	..	..	..	..	..	..	..	..	..
Niger	5.1	4.8	4.8	6.0	6.7	6.3	5.7	5.9	5.7
Rwanda	6.0	6.2	6.0	6.0	5.9	5.9	5.9	5.8	5.9
South Sudan	..	..	..	..	..	..	..	..	..
Uganda	8.4	8.5	9.8	10.5	9.5	8.5	8.7	8.7	8.6
Zambia	8.7	7.6	7.5	7.1	6.2	6.8	7.5	7.7	7.6
Zimbabwe	11.0	9.2	9.2	14.0	12.9	12.6	11.9	11.6	11.0

Source: World Development Indicators

Table 2.15. Trends for agriculture value added share in GDP % for African LLDCs

Country Name	2009	2010	2011	2012	2013	2014	2015	2016	2017
Botswana	2.8	2.5	2.5	2.7	2.3	2.1	2.2	2.0	2.0
Burkina Faso	32.4	32.5	30.8	31.5	31.7	31.4	30.3	30.8	28.7
Burundi	36.7	38.4	36.7	35.4	38.4	35.0	30.7	30.6	..
Central African Republic	51.1	50.3	51.6	50.7	43.8	40.6	40.0	40.5	39.6
Chad	46.5	51.9	51.2	54.9	50.0	50.6	50.4	46.1	49.1
Eswatini	9.3	10.2	9.7	10.4	10.3	9.5	9.6	9.0	8.4
Ethiopia	45.9	41.4	41.2	44.3	41.2	38.5	36.1	34.8	34.0
Lesotho	6.0	5.2	5.2	5.0	5.9	5.6	5.0	5.9	6.1
Malawi	30.4	29.6	28.8	28.3	28.7	28.7	27.5	25.9	26.1
Mali	31.8	33.0	34.6	38.1	36.7	37.5	37.7	38.4	38.3
Niger	39.4	40.9	38.3	38.1	35.8	36.7	36.3	38.8	39.7
Rwanda	29.3	28.2	28.2	29.2	28.9	28.8	28.0	29.3	31.0
South Sudan	..	..	..	..	..	..	..	..	..
Uganda	26.1	26.2	25.1	26.1	25.5	25.1	24.0	23.7	24.6
Zambia	11.6	9.4	9.6	9.3	8.2	6.8	5.0	6.2	6.7
Zimbabwe	10.7	9.6	8.7	8.0	7.1	8.7	8.3	7.9	8.3

Source: World Development Indicators

agriculture has declined and it can be concluded that structural transformation has not yet started.

The technical indicator for structural transformation is a comparison of the share of employment of agriculture and that in industry. **Table 2.16** below shows the employment shares of agriculture and industry in total employment for LLDCs between 2014 and 2018. The shares have not changed over the five-year period, confirming that in the absence of industrial policies

and strategies to catalyse structural transformation, this cannot be achieved.

The progress on structural transformation by African LLDCs has been slow over the review period. Viable and competitive productive capacity is a function of investment responding to conditions that are attractive. In the absence of supportive industrial policies, investment flows have been low and local investors have not been encouraged to invest in value addition,

Table 2.16. Agriculture and Industry employment shares (% of total employment)

	2014		2015		2016		2017		2018	
	Agric. Share %	Industry Share %	Agric. Share %	Industry Share %	Agric. Share %	Industry Share %	Agric. Share %	Industry Share %	Agric. Share %	Industry Share %
Botswana	23.9	18.1	23.6	18.1	23.4	18.1	23.2	18.1	23.0	18.1
Burkina Faso	30.4	31.6	30.0	31.5	29.7	32.3	29.2	32.6	28.7	33.0
Burundi	91.4	2.4	91.6	2.2	91.8	2.2	91.9	2.1	92.0	2.1
Central African Republic	73.8	8.7	73.6	8.7	73.3	8.9	73.1	9.0	72.8	9.2
Chad	80.8	3.3	80.9	3.2	81.3	3.1	81.7	3.0	81.6	3.1
Eswatini	13.3	24.6	13.3	24.5	13.2	24.5	13.1	24.5	13.0	24.4
Ethiopia	70.0	9.1	68.9	9.9	68.0	10.9	67.1	11.4	66.2	12.0
Lesotho	68.1	9.6	67.8	9.7	67.6	9.8	67.1	9.9	66.9	10.0
Malawi ²⁴	72.4	8.2	72.3	8.2	72.2	8.2	72.1	8.2	71.9	8.3
Mali	66.7	8.0	62.3	8.3	66.0	6.3	65.7	6.4	65.3	6.5
Niger	68.5	7.9	67.6	8.3	67.5	8.3	67.1	8.6	66.6	8.8
Rwanda	47.3	18.9	46.0	18.9	48.1	16.5	48.9	15.9	49.6	15.4
South Sudan	76.3	8.0	76.2	7.9	76.2	8.0	76.1	8.0	75.9	8.1
Uganda	71.7	7.0	71.3	7.2	71.4	7.2	71.1	7.3	70.8	7.4
Zambia	55.2	10.3	54.7	10.4	54.4	10.6	54.2	10.6	53.9	10.7
Zimbabwe	67.3	7.4	67.1	7.3	67.2	7.2	67.1	7.3	67.2	7.2

Source: World Development Indicators

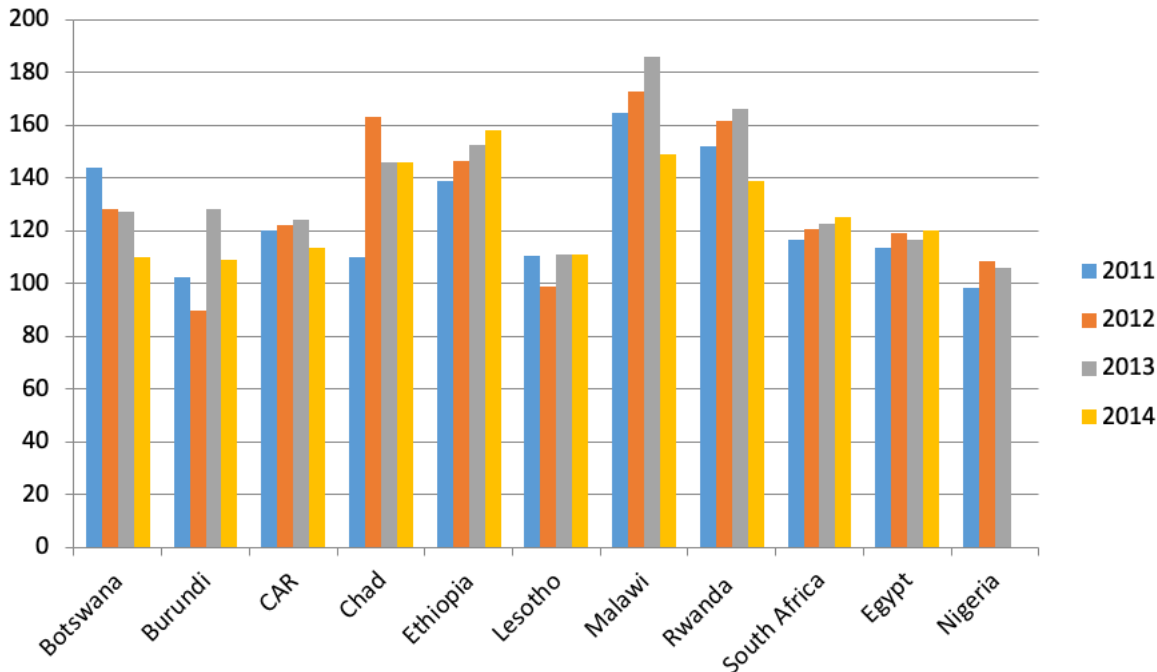
technology and innovation. This underlines the fact that deliberate policies to kick start the industrialisation are an important pre-condition. The participation of LLDCs in regional and global value chains is of the historical form where they have been suppliers of unprocessed raw materials which also undermines intra-regional and hence regional integration.

AGRICULTURAL DEVELOPMENT IN LLDCS

Agriculture contributes a huge component of Africa’s GDP, and Africa’s transformation largely depends on agricultural output. Agriculture contributes between 40 % and 50% of GDP. To accelerate agricultural development in Africa, the African Union Commission launched the Comprehensive African Agricultural Development Programme (CAADP) in 2003 after endorsement by African Ministers responsible for Agriculture in 2002. In order to further strengthen the programme, the AU Assembly adopted the Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods in June, 2014, and in 2017 the CAADP Programme gathered momentum through implementation of the following seven Malabo commitments:

- i. re-committing to the principles and values of the CAADP process;
- ii. enhancing investment finance in agriculture;
- iii. ending hunger in Africa by 2025;
- iv. cutting poverty in half by 2025 through inclusive agricultural growth and transformation;
- v. boosting intra-African trade in agricultural commodities and services;
- vi. enhancing resilience of livelihoods and production systems to climate variability and other related risks; and
- vii. strengthening mutual accountability to actions and results.

Figure 2.15 below, which depicts the LLDCs agricultural productivity indices suggests that Botswana, Chad, Ethiopia and Malawi have relatively high agricultural productivity indices, whilst South Africa, Egypt and Nigeria trail behind them. Burundi, Lesotho and even Nigeria have much poorer productivity indices.

FIGURE 2.15 Year on Year Agricultural Productivity Indices for LLDCs + 3

Source: FAO Statistical Data Base, 2017

PROMOTING REGIONAL INTEGRATION IN INDUSTRIALIZATION

In spite of significant growth rates around Africa over the past decade, intra-REC and inter-African trade remains very low while the region's import bills have been increasing. The African continent is still primarily exporting low value unfinished commodities. As shown in the section on international trade, LLDCs are among the African countries that export primary products of agriculture and minerals. Industrialization is a key to rapid economic development which by offering a variety of manufactured goods, increases employment opportunities, improves balance of payments position, and contributes to greater efficiency and modernization throughout the economy. Industrialization is expected to play a transformative role with improved capacity to create employment, reduce poverty and enhance regional trade, through the increase in value added products leading to increased intra-regional trade. It thrives through the supply of partially processed intermediate inputs into production set ups across a region in the process leading to the establishment and development of regional value chains that promote investment and exchange across regional member countries' borders. Industrialization creates

an opportunity for governments to make long-term investments in infrastructure, skills development and institutional building as part of the support to this initiative.⁵⁵

There is a renewed push for industrialization in Africa in recent years. The African Union led an initiative together with the United Nations Industrial Development Organization (UNIDO) to formulate the "Action Plan for the Accelerated Industrial Development of Africa (AIDA)," as a strategy to mobilize financial and non-financial resources and enhance Africa's industrial performance. AIDA was adopted by African heads of state at its summit in 2008. Based on this, most regional economic communities have developed industrialization policies and strategies as vehicles for accelerating industrialization in the regions. In addition, the policies strive to create conditions that stimulate cross-border production, investment and trade in the process deepening regional integration. The policies seek to accelerate industrialization through promotion of transformation of local raw materials diversification of industrial productive capacity and increase exports of manufactures. It is through these value chains that LLDCs have identified opportunities to partner with other states in their regions and beyond. Intra-regional

⁵⁵ Foresight Africa 2016: Industrialization, job creation and structural transformation. Africa in focus, Brookings Institute, Siba, E (2016) (<https://www.brookings.edu/blog/africa-in-focus/2016/01/20/foresight-africa-2016-industrialization-job-creation-and-structural-transformation/>)

plays a pivotal role in facilitating increased economies of scale, diversification and value addition. The section below outlines the efforts that have been made by the RECs to promote the necessary environment for industrialisation, largely through the relevant policies, protocols, strategies and in some cases, action plans. Value chains have proved beneficial to weaker economies like the LLDCs, as they seek to partner with stronger economies to promote industrialisation and export trade.

The COMESA Industrial Strategy that was approved by Ministers of Industry in Lusaka, Zambia on 8th September 2017 places emphasis on local content as the stimulus for industrial growth in the region. It was developed based on the COMESA Industrial Policy adopted by the Council in 2015. It seeks “to promote self-sustained and balanced growth; increase the availability of industrial goods and services for intra-Common Market; improve the competitiveness of the industrial sector in the process enhancing the expansion of intra-regional trade in manufactures to achieve structural transformation of the economy that would foster the overall socio-economic development in Member States; and develop industrialists that would acquire ownership and management of the industries.”

It focuses on 9 key priority areas: Agro-processing, Energy, Textile and Garments, Leather and Leather Products, Mineral Beneficiation, Pharmaceuticals, Chemicals and Agro-Chemicals, Light Engineering and the Blue Economy. These focus areas have been identified based on their impact on the sustainable and inclusive economic growth for COMESA Member States. The strategy is built on the following eight enabling pillars;

- Industrial development supportive Infrastructure;
- Enabling legal, regulatory and institutional business environment;
- Access to adequate and affordable finances;
- Standardization, quality assurance and quality management systems;
- Establishing Industrial Parks (Special Economic Zones, Multi Facility Economic Zones, Industrial Clusters);
- Supportive Science, Technology and Innovation (STI) Policies;
- Promoting the use of Diaspora resources; and
- Promoting local content and sourcing.

The LLDCs that would benefit from the strategy are Burundi, Eswatini, Ethiopia, Malawi, Uganda, Zambia and Zimbabwe (most of which are dual members of RECs). The COMESA Secretariat is expected to develop an implementation plan to guide member states on implementation of the strategy. Most of these LLDCs already had outdated industrial policies and strategies to guide the development of their industrial sectors. The next logical activity is to align their policies and strategies with the regional initiative. As such there has not been much that has happened at Member state level although there may be activities to implement the strategy.

In the East African Community, the EAC Industrialization Policy 2012 -2032 and its strategy were approved in 2012. The policy theme is “Structural transformation of the manufacturing sector through high value addition and product diversification based on comparative and competitive advantages of the region”. The East African Industrialisation Strategy (2012-2032) has the objective to enhance industrial production and productivity and accelerate the structural transformation of the economies of the EAC for attainment of sustainable wealth creation, improved incomes and a higher standard of living for the Community. It seeks to diversify the manufacturing base and raising local value-added content of resource-based exports to at least 40% by 2032; strengthen institutional frameworks and capabilities for industrial policy design and implementation, and effective delivery of support services; strengthen Research & Development, Technology and Innovation capabilities to foster structural transformation of the manufacturing sector and industrial upgrading; expand trade in manufacturing by increasing intra-regional manufacturing exports relative to total manufactured imports and increasing the share of manufactured exports in total merchandise exports; and transforming Micro Small and Medium Enterprises into viable and sustainable business entities that can contribute at least 50% of manufacturing GDP.

The EAC has been implementing its industrialisation strategy the longest. It has produced special sector development strategy documents⁵⁶ which guide the implementation of the REC's industrialisation strategy. The LLDCs in the EAC are significant players in the implementation of these strategies and the successful results will contribute to the attainment of VPoA goals. Rwanda is the third most integrated economy

⁵⁶ Comprehensive Study on Modalities for the Promotion of Automotive Industries in the East African Community | 2017 and 2nd EAC Regional Pharmaceutical Manufacturing Plan of Action 2017–2027. <https://www.eac.int/documents/category/industrialization-sme-development>.

in the EAC and Uganda is second. Both economies have implemented some of these strategies. Rwanda started assembling Volkswagen vehicles in 2018 and Uganda has an ARV plant in Kampala. In addition, Uganda has attracted investments in the dairy sector with production exported to Kenya for processing thus developing a regional value chain in dairy production. In this area, Uganda is entering global value chains too.⁵⁷ Uganda has attracted investment in the oil production sector which also includes investment in an oil refinery with the specific aim of adding value to the oil and producing refined petroleum products and exporting crude oil. In the EAC, and to an extent in COMESA, the two LLDCs have prioritized industrialization as a tool for regional integration. Table 2.17 below shows the various policy and other statutes that seek to promote industrialization at the level of the RECs in Africa.

In the Economic Community of Central African States (ECCAS), the region has a protocol on Industrial Cooperation. In the Treaty establishing the ECCAS, Cooperation in industry is catered for under Articles 45 and 46⁵⁸ Regional integration of member economies will be enhanced through harmonization of industrialization policies in the sub-region by Member States. LLDCs in ECCAS are Central African Republic and Chad which are also under the CEN-SAD. Article 46 of the Treaty outlines the cooperation and intervention areas by Member States to achieve rational and harmonious industrial development. These are:

- harmonize measures for stimulating industrial development by gradually establishing a homogenous industrial environment in the sub-region, inter alia by the preparation of a common investment code;
- promote the establishment of large industrial units of a Community character and of an industrial development center;
- allocate Community projects in a balanced and harmonious manner among all Member States;
- forbid the establishment of national industries which might compete with Community industries satisfactorily meeting the needs of Member States of the Community;
- establish sub-regional training and further training centers at all levels of skill to satisfy their personal requirements in industry, trade and technology.

Within the Economic Community of West Africa States (ECOWAS), the West Africa Common Industrial Policy (WACIP 2012-2020) was developed based on the ECOWAS Common Industrial Policy and was approved in 2010. It aims to “accelerate the industrialization of West Africa through the promotion of endogenous industrial transformation of local raw materials, development and diversification of industrial productive capacity, and strengthening regional integration and export of manufactures.” LLDCs that are members of ECOWAS

Table 2.17. RECs Industrial Policies/Strategies

REC	Industrial Policy focus	Industrialization Strategy	Period Covered
COMESA	COMESA Industrial Policy (2015)	COMESA Industrialization Strategy	2015-2025
CEN-SAD			
EAC	EAC Industrialization Policy 2012 -2032	East African Industrialization Strategy (2012-2032)	2012 -2032
ECOWAS	West Africa Common Industrial Policy		2012-2020
SADC	SADC Industrialization Policy	SADC Industrialization Strategy Roadmap 2015 – 2063	2015 - 2063

Source: Various Rec websites

include Burkina Faso, Mali and Niger.

Specific objectives of the policy with a target to be achieved by 2030 are:

- Raise the local raw material processing rate from 15–20 percent to an average of 30 percent;
- Increase manufacturing's contribution to regional GDP from 6–7 percent to over 20 percent;
- Increase intra-ECOWAS trade in manufactured goods from less than 12 percent to 40 percent; and
- Increase the volume of exports of goods manufactured in West Africa to the global market from 0.1 percent to 1 percent.

⁵⁷ UNDP (2017) Uganda's Experience on Implementing Plans for Emergence: Export Diversification for Structural Transformation. Report Prepared for 2nd International Conference on the Emergence of Africa, 28-30 March 2017.

⁵⁸ ECCAS (undated) Treaty establishing the Economic Community of Central African States.

More importantly, this policy was revised and updated in 2015 which coincides with Vienna Programme of Action for LLDCs. The revised policy placed focused on:

- Reinforcing national industry policies and advancing harmonization and regional cooperation
- Promoting regional and international market opportunities.
- Supporting industrial quality and competitiveness.
- Mobilizing resources.

Along with new focus, the revised policy identified priority sectors viz. food and agro-industry, pharmaceuticals, construction materials, and automotive and machinery assembly.

The ECOWAS regional integration agenda is pursued and implemented under the ECOWAS Trade Liberalization Scheme (ETLS) which was initially introduced in 1979 with the trading of industrial products added in 1983. The requirement under the ETLS that industrial goods traded in ECOWAS must originate in member states is also associated with the requirement to register products and producers. For the LLDCs in ECOWAS, their response to pressures to register products indicates their drive for regional integration through industrialisation. In the period 2013 – 2018, Burkina Faso registered 3 products while Mali registered 122 and Niger registered 2 products. While the reference period includes a period outside the adoption of the VPoA, the statistics give an indication of the activities on the industrial development front. The performance of Mali indicates a higher likelihood some of the products would have been registered as part of the

implementation of the VPoA. **Table 2.18** below shows the trends in intra-ECOWAS trade. It is not possible without going into details about each member state to assess the impact of implementation of the VPoA on LLDC trade and industrialisation on regional integration.

With regard to the Southern African Development Community (SADC), the SADC Industrial Development Policy Framework was approved in 2012 and its implementation matrix covered the period 2013 – 2018. A SADC Industrialisation Strategy Roadmap 2015 – 2063 was approved in 2015. It was developed to implement the policy and out of a realisation that intra-regional trade was constrained by the dominance of trade in unprocessed products of agriculture and minerals and yet the region's food imports showed considerable value and volumes of processed or value-added products. The Industrialization Strategy is an inclusive long-term modernization and economic transformation scheme designed to catalyse substantive and sustained improvement in living standards, intensify structural change and engender a rapid catch up by the SADC countries. It has three interdependent and mutually supportive strategic pillars – industrialization as champion of economic transformation; enhancement of competitiveness; and deeper regional integration. It identifies three potential growth paths – agro-processing; mineral beneficiation and downstream processing and industry- and service-driven value chains. Overall, growth and transformation will be achieved by the stimulation of investment in productive capacity, improved efficiency and increased production that is placed in the larger regional market.

Table 2.18. Trends in Intra-Economic Community of West African States trade, 2011-16

	2011	2012	2013	2014	2015	2016
Exports (\$ billions)	15.3	13.6	14.0	12.7	9.8	12.0
Imports (\$ billions)	9.1	9.4	12.1	9.0	8.3	9.7
Total intra-ECOWAS trade (\$ billions)	24.4	23.0	26.1	21.7	18.1	21.7
Intra-ECOWAS exports (% of total exports)	10.0	8.0	11.8	9.8	13.6	11.9
Intra-ECOWAS imports (% of total imports)	8.8	12.2	13.7	9.7	10.7	11.1
Total intra-ECOWAS trade (% of total trade)	9.4	10.1	12.7	9.8	12.1	11.5

Ongoing implementation is guided by an Action Plan which was approved in March 2017. LLDCs that stand to benefit from the SADC initiative include Botswana, Eswatini, Lesotho, Malawi, Zambia and Zimbabwe, all of which remain gravely concerned with their trade deficits within both SADC and the rest of the world.

The SADC strategy seeks to develop targeted and selected industrial policies that create conditions that

will enable higher rates of investment by the public and private sectors into economic infrastructure. A major thrust in the approach is the development of regional value chains where value addition underpinned by trade in intermediate products across regional borders to reduce cost and improve efficiency and competitiveness. SADC countries are integrated into global value chains (GVC's) at levels that offer the least returns and the intention is to change this. The strategy

and the Action Plan intend to facilitate the movement of SADC participation up the value chains to earn high value.

The SADC Secretariat is coordinating implementation and approaches have focused on identifying value chains with the best prospects for promoting regional linkages thus intensifying integration through industrialisation. Studies have been undertaken as preparatory work to identify and develop VCs in agro-processing and mineral beneficiation around which member states would work. There are six-member states of SADC which are landlocked. Initiatives have been on aligning national industrial policies to the SADC Industrialisation Strategy and Roadmap. Implementation requires that focus be given to border management and trade facilitation activities.

The LLDCs in the various RECs work in frameworks designed to support all member states to better integrate into their regions. Most RECs realize the potential for regional integration offered by industrialization and have developed strategies to foster this important dimension. In the end, the commitment levels by each individual state and the willingness to initiate and implement policies determine the development and extent of achievement. Policies and strategies alone cannot ensure the realization of objectives. Implementation will and the resources channeled, the monitoring and a willingness to adjust can improve performance. Value chains offer opportunities for Member states to gain by attracting investment and organizing value addition to gain efficiency and hence competitiveness. In spite of the apparent logic for regional industrialization strategies, it is not clear what the actual role and added value of regional organizations and policies are, or should be, in this domain.⁵⁹ Member states profess support for a regional industrialization agenda, their domestic industrial development and other political objectives often lead them to adopt policies that protect national industries, often at the expense of their neighbors.

DEVELOPMENT OF INDUSTRIAL VALUE CHAINS IN LLDCS IN AFRICA

GVCs provides important opportunities for firms to access international markets, absorb new technology, and rapidly expand their economies of scale and therefore facilitate structural economic transformation.

As part of the continentally and regionally facilitated programmes, several LLDCs have identified some value chains in which they are and could participate in. Within the context of the COMESA-EAC-SADC Tripartite, the value chains identified in the agro-sector include maize; cassava; fish; hides, shoes and leather, as well as sugar. Some of the value chains in the LLDCS entail the rice and groundnuts value chains in Malawi. Malawi participates in global and regional value chains, which include, among others, rice, groundnuts and fish.

However, the value chains face immense challenges, among them, limited access to irrigation; limited access to quality inputs; weak supporting organizations; low mechanization for land preparation and harvest are undertaken manually. There are also issues relating to limited access to processing facilities, which are inadequate and often substandard. This sometimes forces them to sell their rice un-milled, resulting in farmers being unable to negotiate better prices (as there's no value addition). On the other hand, large scale mills are not productive enough due to a low supply of rice. The temperamental nature of electricity supply affects efficiency for millers and they may have to resort to costly generators. Companies export these products to Scotland, Zimbabwe, Zambia, Tanzania and Mozambique.

Zambia focuses on soybean and poultry value chains. Key challenges confronted include soya production remains limited and challenges in sourcing adequate raw materials to operate at more than 50% of their full capacity. Efforts have been made to enrich the soils for improved quantity and quality of production. Regarding the Zambia Poultry Value Chain, challenges relate to huge challenges hindering the development of the animal feed, feed input and poultry production sub-sectors. Zambia participation in regional value chains has also been limited by uncompetitive price. Zimbabwe has also established value chains in the agro-processing industry focusing on soybean, although the country faces increased prices of inputs like fertilizers and foreign currency. Zambia also participates in textiles and apparel value chains. In East Africa, Uganda has joined a number of agro-value chains, largely involving maize and textiles. What is notable in all these initiatives is the increase in traded products within the Tripartite, which has increased to about 32% on some products.⁶⁰

⁵⁹ Byiers et. al. (2018) SADC industrialisation: where regional agendas meet domestic interests. Discussion Paper No. 232, October.

⁶⁰ Consultancy Services to Conduct a Mapping Study on Agro Processing Value Chains and Prepare Tripartite Support Plan for the Sector, COMESA Secretariat, 2017

Associated with the value chains is the concept of beneficiation, where states are looking at a range of activities or processes that involve working on separating the mineral from the ore and improving or adding value by further processing. Beneficiation is associated with economic development where it describes the proportion of value derived from exploitation of assets which stays in-country as a national benefit. There are ten key commodities that constitute value chains in West Africa, namely, cocoa, oil seeds, edible fruits and nuts, fish and crustaceans, animal/vegetable fats, tobacco, cereals, dairy produce and coffee/tea products. The key value chains are cashew nuts in which for example, Burkina Faso participates as an LLDC. Others include live animals (Mali and Burkina Faso), sugar (Niger). Cotton has also taken centre stage in global value chains, with the participation of LLDCs like Burkina Faso (US\$ 500 million per annum) and Mali (US\$ 390 million per year).⁶¹ Of significance is the West African textile value chains, with participation by Burkina Faso, Niger and Mali, where it has been argued that at this stage, entry into the business is no longer restricted on account of globalization, with some traders arguing they can even compete on equal terms with China and India, among others.⁶²

A number of critical success factors for the development of RVCs and GVCs have been identified, and the key aspects include: Technological upgrading; Creation of appropriate enabling environment by the states; Stable macroeconomic environment, robust financial markets and banking systems; Provision of ICT and energy as key enablers of industrialization; Removal of key binding constraints (mainly provision of skills, finance and infrastructure); Reduction of transaction costs for producers and manufacturers; Enhancing economies of scale; Raw material guarantees; Focus on areas of comparative advantage; Creation of relevant centres of excellence.

The Southern African region is pushing for a revolutionary value addition process to its natural resources, as part of the industrialization strategy, to ensure that the region transits to value-adding, provision of the right skills, technologies and production of quality goods to give the region a competitive edge, create employment and self-sufficiency, produce quality goods and services and move into high value global value chains. The region acknowledged the

pivotal role the private sector needs to play to bring appropriate skills and technology to ensure the success of this strategy. Most studies carried out observed that beneficiation is far from being achieved in the mining, petroleum and agricultural sectors, let alone in LLDCs. There are however more opportunities for value addition in the agro-industries and much less in capital goods.

A number of fundamentals that need to be addressed to fully realize beneficiation and value addition have been identified, and these include: Improved Governance –politically, economically and specifically within the requisite sectors; Create beneficiation enabling structures and beneficiation task teams; Enabling regulatory framework in all key sectors; Investment promotion and facilitation; Invest in relevant R and D and technology; Infrastructure development; Skills Development.

RECOMMENDATIONS

Economic transformation remains key in re-aligning the economies of LLDCs. There are lessons learnt from the various arguments that emerged in this section of the report, some of which are low hanging fruits.

- On average, there is about 60% labour employment in agriculture with between 20-40 contribution to the economy. LLDCs can however improve economic performance in this sector through enhanced agro-processing that provides value added opportunities.
- LLDCs need to scale up the use of smart technology and skills development in the various sectors, thereby increasing productivity, global competitiveness and foreign earnings of the LLDCs.
- LLDCs should push for intensification in industrialization through linkages with other regional and global value chains to create a win win situation.
- LLDCs should seek FDI flows to high-value added sectors
- LLDCs should enhance the potential of the services sector
- E-commerce provides an opportunity for the LLDCs to participate in the value chains, it is therefore important for these countries to take advantage of

⁶¹ Regional Integration and High Potential Value Chains in West Africa, Judith Fessehaie, 2016.

⁶² West African Cotton and Global Value Chains: From Production to Textiles, B. Ebia, Graduate School of Duke University, 20118.

the e-commerce opportunities.

2.9. Priority 6: Means of Implementation

In 2017, a total of \$17.9 billion was received in ODA by the African LLDCs, a real increase of 24% since the Vienna Programme of Action was adopted in 2014. However, ODA was unevenly distributed between the African LLDCs, with three countries accounting for 46% of the group's total that year.

Figure 2.16 demonstrates the relative importance of ODA as compared to other sources of financing for the African LLDCs and charts the upward trend in real ODA flows to these countries since 2010. In 2016, ODA inflows represented over 10% of GNI in six African LLDCs indicating the importance of ODA to these countries.

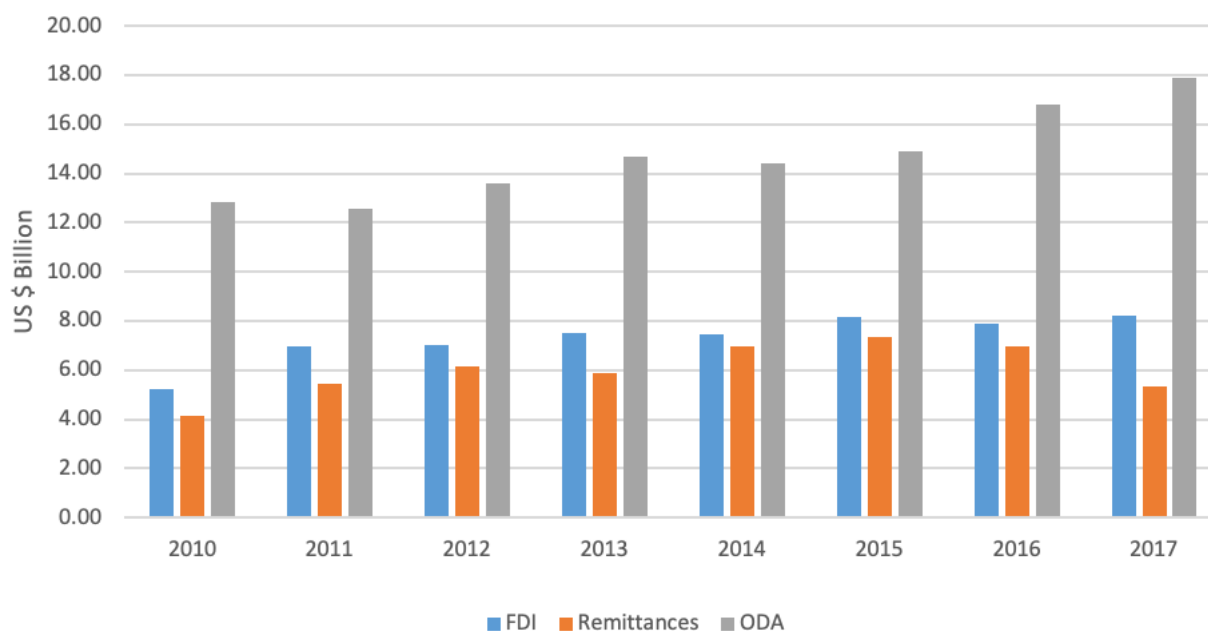
Aid for Trade⁶³ plays a key role in assisting LLDCs' capacity-building on the formulation of trade policies; participation in trade negotiations and implementation of trade facilitation measures; the development of trade-related infrastructure; and the diversification of export products and strengthening of productive

capacities with a view to increasing competitiveness of their products in export markets. Aid for Trade also has the potential to ease the binding constraints that prevent landlocked developing from linking to or moving up value chains. Ultimately, Aid for Trade is essential for countries to make effective use of multilateral trading system.

Since 2006, LLDC received close to US\$60 billion in aid for trade. In 2016, LLDCs, received disbursements of 6 billion US\$, slightly less than in 2015 (6.3 billion US\$). The share of LLDCs in overall AFT was 17% in 2016, slightly higher than in previous years. African LLDCs received US\$3.1 billion in 2015 and US\$3.2 billion in 2016 – with one LLDC receiving almost 28% of the total AFT. More than a third of AFT flows for LLDCs in 2016 went to agriculture (34%), 26% to transport and storage infrastructure and 24% to energy infrastructure. In terms of support to trade policy, trade facilitation was the most important category, and accounted for 2.5% of overall AFT flows to LLDCs.

A number of AfT programmes have been implemented across Africa, through the regional blocs. Some of the examples of such programmes include the COMESA-EAC-SADC Tripartite initiative, which was supported

FIGURE 2.16 Official development assistance, foreign direct investment and remittances to the African landlocked developing countries (Billions of United States dollars)



Source: World Bank World Development Indicators, UNCTAD

⁶³ Aid for Trade includes aid for economic infrastructure (transport and storage, communications and energy), building productive capacities (in areas of agriculture, forestry, fishing, industry, mineral resources and mining, banking, financial and business services), assistance for trade policies and regulations and trade-related adjustment and other trade related needs.

by the UK Department of International Development (DFID), through two vehicles created for the purpose, namely, TradeMark East Africa (TMEA) and TradeMark Southern Africa (TMSA). Activities under this programme included support to infrastructure development (project preparation and investment), development of the framework and attendant instruments for the COMESA-EAC-SADC Tripartite Free Trade Area, corridor transport development, development, adoption and implementation of trade facilitation measures. One of the key projects supported under the Tripartite was the Chirundu Border post between Zambia and Zimbabwe, creating opportunities for trade involving LLDCs like Zambia and Zimbabwe. Another key project was the support rendered to the development of the North – South Corridor as a pilot project for the Tripartite corridors.

In 2017, African LLDCs received \$8.2 billion in FDI flows. This amounted to 0.58% of total global FDI inflows and 36.2% of FDI inflows to all landlocked developing countries. The latter figure represents a 10.2% increase in the share of FDI flows to African LLDCs as compared to other LLDCs since the adoption of the VPoA in 2014. **Figure 2.14** demonstrates that FDI flows to the African LLDCs have been growing since 2010, apart from a slight dip in 2016. FDI inflows to the African LLDCs have however focused on a few countries with three countries accounting for 65.4% of these flows in 2017. FDI flows are also concentrated on the extractive sector (specifically, to mining, quarrying and petroleum). The top five investor economies by FDI stock for LLDCs in 2016 were China (\$29 billion), France (\$13 billion), Canada (\$6 billion), South Africa (\$4 billion) and Thailand (\$3 billion). This ranking demonstrates the growing importance of South-South cooperation for LLDCs.

In 2017, the African LLDCs received \$5.34 billion in remittances, which was \$1.6 billion less than was received by the group in 2014. Remittance inflows to the African group were unevenly distributed, with the top three recipients accounting for 58.8% of inflows in 2016.

One of the key opportunities that have been identified to transform the economic fortunes of LLDCs is the effective participation of LLDCs in South-South and triangular cooperation and has the potential to enable LLDCs to meet their developmental objectives, including sustainable growth, increased access to the sea, economic diversification and capacity development. South-South and triangular cooperation has the capacity to address broad thematic and structural development issues that confront LLDCs,

such as building resilience, economic diversification, infrastructural development, institutional and productive capacity building, increasing trade and access to markets. This can be realized through the transfer of technology, skills development, increasing of investment, sharing of best practices and exchange of successful experiences and knowledge. Indeed, transfer of technology in particular, goes beyond transit issues and should be re-oriented towards building up of the productive capacities in LLDCs. The partnership between LLDCs and other countries of the global South has been progressive and encompasses many areas, ranging from trade and foreign resource transfers including ODA, FDI, and technology and as well as capacity development. Further LLDC development is expected with their growing participation in South-South and triangular cooperation.

Another key area where South-South Cooperation has gained momentum is in the area of trade for both the global South in general as well as trade between the global South and LLDCs. The value of LLDCs merchandise exports grew solidly by 31 and 36 per cent in 2010 and 2011 respectively to reach a record-high of \$224 billion. Fuel and mineral LLDC exporters experienced the largest gains during 2010 and 2011. Unfortunately, LLDCs continue to rely on a limited number of export products, in particular raw agricultural and mining commodities. Issues of capacity development within the South-South Cooperation framework have also taken centre stage, focusing on transfer of knowledge, assets and technology and capacity development. China continues to offer scholarships to African students with an estimated 12,000 African students pursuing various degrees supported by the Chinese government. Scholarships are also offered by the Indian government with scholarship schemes offered to African countries.

Triangular cooperation which involves two or more developing countries in collaboration with a third party, typically an emerging/developed country government or organization, that contributes to the exchanges with its own knowledge and resources is increasingly becoming important and a significant part of the global development cooperation architecture. Triangular cooperation is an effective means of creating solutions to address regionally-shared issues such as transit transport among countries. One such example is the initiative of promoting One Stop Border Post (OSBP). With complementary financial and technical support from international partners including World Bank, UK DFID and JICA, an OSBP for road transport was first introduced at the Chirundu border between Zimbabwe and Zambia in 2009 with tangible impacts

on smoother and more efficient border management, bringing about immense benefits to two LLDCs, Zambia and Zimbabwe. The OSBP's inauguration has already produced significant improvements including the reduction of waiting times for border formalities. The OSBP at Chirundu itself was the South-South partnership between Zimbabwe and Zambia assisted by both multilateral and bilateral donors. Following the success at Chirundu, the OSBP practice is now being replicated on other borders in Sub-Saharan Africa as an integral part of the regional infrastructure initiative.

Further strengthening of South-South Cooperation and Triangular Cooperation has proved to be a viable means for diversified opportunities, additional foreign direct investment flows that contribute to sustainable development of LLDCs, as well as cooperation in the transfer of appropriate technologies.

The growing demand for funding against a backdrop of declining ODA funding has indirectly pushed for domestic resource mobilization (DRM). Greater reliance on domestic resources enhances accountability for project implementation. In addition, external resources are inadequate to meet the requirements for SDGs. Key aspects of DRM include taxes, non-tax revenue sources, among others. Case studies on DRM have been documented. In Ethiopia, two key

power generation projects have been funded through DRM, which constitutes lessons for other developing countries. **Table 2.19** shows tax revenue as a percent of GDP for African LLDCs that have available data. It is important for LLDCs to continue with their efforts to enhance domestic resource mobilization, broaden the tax base and integrate the informal sector into the formal economy in line with country circumstances, and enhance revenue administration through modernized, progressive tax systems, improved tax policy and more efficient tax collection and administration. The international community should provide technical support to LLDCs on this endeavor.

There is a new drive to attract private sector funding, for example, the AfDB Africa50 Fund was launched in 2013, with the objective of leveraging private financing to bridge the infrastructure gap. In addition, other mechanisms targeted include the African pension funds, African sovereign wealth funds, the African diaspora and high net worth individuals.⁶⁴ The key to the success of these funds is assured return on investment and therefore the need to develop instruments that can facilitate lending from such funds. Inevitably, it is critical that such funds are utilized on projects that are structured on cost recovery mechanisms. Furthermore, the PIDA Continental Business Network has roped in private sector support to projects, with the private

Table 2.19. Trends in Intra-Economic Community of West African States trade, 2011-16

	2014	2015	2016	2017
Burkina Faso	15.4	15.1	16.7	17.4
Botswana	25.8	24.7	20.8	22.1
Lesotho	45.2	40.5	33.7	37.2
Mali	12.6	14.1	15.4	15.9
Malawi	15.9	15.2	15.5	17.3
Uganda	--	12.9	13.5	--
Zambia	17.0	16.8	14.9	--

Source: *World Development Indicators*

sector being introduced to projects at very early stages of preparation. The NEPAD Business Foundation, also in terms of its mandate, has sought to solicit private sector financing for priority projects. Commercial banks like Standard Bank have also continued to avail financing for smart projects.

Nonetheless, the appetite for private sector financing of projects remains low, and it is argued that the enabling environment is still not good enough to attract the

proliferation of private sector support to infrastructure. Disappointingly, most African LLDCs have scored very low on the World Bank Doing Business Rankings, with only three ranking 70 or better. That notwithstanding, there are many examples of private sector participation in especially infrastructure. Investment in the money-spinning mobile networks has been the norm, with a large number of private operators coming onto the market. These examples include Public Private Partnerships in the following projects:

⁶⁴ Private sector participation in infrastructure for development, South African Journal of International Affairs, Wentworth, A., and Makokera, C.G., 2015.

- Toll roads in South Africa;
- Private port terminals in most large ports in Africa;

In LLDCs, examples include:

- The Beitbridge – Bulawayo Railway in Zimbabwe, which has been running for almost 20 years;
- The New Limpopo Bridge between South Africa and Zimbabwe;
- The Copperbelt Electricity Company (CEC) in Zambia, a private company, undertaking power projects;
- MOTRACO Power interconnector between Eswatini and Mozambique;
- The Ethiopia Renaissance Dam with more than 50% private sector participation

Given the long gestation of projects, very little progress has been made with investment by the private sector in recent years, although investment in renewable energy continues to gather momentum.

Aid for trade is a key instrument that facilitates unlocking of trade bottlenecks, especially for LLDCs and more resources need to be poured into this area. In the interests of fair global trade and equitable competitiveness, lobbying the WTO to be champion on enhancement of Aid for Trade is critical.

RECOMMENDATIONS

- LLDCs should strengthen their efforts in mobilizing domestic resources, including through carrying out reforms in tax administration, broadening the tax base and strengthening domestic capital markets.
- LLDCs should prioritise Domestic Resource Mobilization given the limited financing from external sources, although this requires implementation of cost reflective tariffs to attract private investors. There is need to prioritize private sector funding for the provision of infrastructure as well as create an appropriate enabling environment for investment, by putting in place proper legislative and regulatory measures in order to enhance the appetite for private sector participation, as well as bring about a business culture in mandated institutions;
- LLDCs need to enhance the level of good governance in key institutions that facilitate economic development and provide services, especially within the public sector and parastatal organizations, in order to bring about the much-needed operational efficiency and sustainability in these enterprises;

- LLDCs can attract more FDI by improving their regulatory environment and by engaging in regional integration initiatives and deepening their cooperation with neighbouring countries, especially transit countries.

- LLDCs should put in place sound industrial policies and strategies to catalyse structural economic transformation through enhanced investment, entrepreneurship and technological transformation.

- LLDCs will also need to better leverage ODA for attracting further finance from other sources such as foreign direct investment, public-private sector partnerships, and blended finance. Furthermore, FDI, public-private partnerships, blended finance and remittances need to be utilized more effectively in promoting growth and structural change in the LLDCs.

- LLDCs need to identify and prepare bankable projects to secure financial and technical resources from multilateral initiatives such as the Africa Development Bank.

- LLDCs should push for mainstreaming of the VPoA programme into the regional and continental agenda, as well as greater collaboration between the UN family, the RECS and the African Union, to fully mainstream the programme into the latter's strategies and action plans. Such programmes should focus on addressing key challenges with clear targets and benchmarks to ensure proper monitoring and evaluation and robust action on the ground, underpinned by emphasis on a quantitative approach and less qualitative approaches.

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