CROSS•BORDER
ROAD TRANSPORT AGENCY

ANNUAL STATE OF CROSS-BORDER OPERATIONS REPORT

MARCH 2020

(ASCBOR COMPLETED DURING 2019/20)

CONTENTS

ACRONYMS

Abbreviation	Meaning
AEO	Authorised Economic Operator
AfCFTA	African Continental Free Trade Area
AfDB	African Development Bank
AICD	Africa Insfrastructure Country Diagnostic
ANPR	Automatic Number Plate Recognition
ASCBOR	Annual State of Cross-Border Operations Report
AU	African Union
BA	Botswana Operations Annual Permit
BMA	Border Management Agency
BOT	Build-Operate-Transfer
BT	Build-Transfer
C-BRTA	Cross-Border Road Transport Agency
CBRT-RF	Cross Border Road Transport-Regulators Forum
CE	Chief Executive
CEAR	Central Eastern African Railways
CFM	Portos e Caminhos de Ferro de Moçambique
CMC	Corridor Management Committee
CMI	Corridor Management Institution
COMESA	Common Market for Eastern and Southern Africa
CPI	Corridor Performance Indicator
CPMS	Corridor Performance Management System
CSF	Critical Success Factor
DBSA	Development Bank Southern Africa
DFI	Development Finance Institutions
DHA	Department of Home Affairs
DoT	Department of Transport
DRC	Democratic Republic of the Congo
DTI	Department of Trade and Industry
EAC	East African Community
EC	European Commission
EIB	European Investment Bank
EDI	Electronic Data Interchange
EU	European Union
FESARTA	Federation of Southern African Road Transport Associations
G-8	Group of 8
G-20	Group of 20
GIS	Global Information System
GPS	Global Positioning System
GVM	Gross Vehicle Mass
ICA	Infrastructure Consortium for Africa
ICP	International Cooperation Partner
ICT	Information Communications Technology
IRU	International Road Transport Union
ITS	Intelligent Transport System
JICA	Japan International Cooperation Agency
JITI	Johannesburg International Transport Interchange
JRMC	Joint Route Management Committee
KM	Kilometre
M	Meter

MCBRTA	Multilateral Cross Border Road Tranport Agreement
MCLI	Maputo Corridor Logistics Initiative
MDC	Maputo Development Corridor
M&E	Monitoring and Evaluation
MoU	Memorandum of Understanding
MS	Member States
NBF	NEPAD Business Foundation
NSC	North South Corridor
NSCMI	North South Corridor Management Institution
OCAS	Operator Compliance Accreditation Scheme
OECD	Orgaisation for Economic Co-operation and Development
OSBP	One Stop Border Post
PAP	Priority Action Plan
PIDA	Programme for Infrastructure Development Africa
PPF	Project Preparation Facility
PPP	Public-Private Partnership
PPPC	Public-Private Partnership Commission
RDF	Regional Development Fund
REC	Regional Economic Community
RFA	Road Freight Association
RFID	Radio-Frequency Identification
RGR	Ressano Garcia railway line
RIDMP	Regional Infrastructure Development Master Plan
ROI	Return on Investment
RUC	Road User Charge
RTMS	Road Traffic Management System
SACU	Southern African Customs Union
SADC	Southern African Development Community
SADC-PF	Southern African Development Community Parliamentary Forum
SAPS	South African Police Services
SARS	South African Revenue Service
SMART	Smart, Mobility, Automated, Real-time Traffic Management
SOE	State-Owned Enterprises
SP	Service Provider
STAP	Short-term Action Plan
TEU	Twenty-foot Equivalent Unit
TFR	Transnet Freight Rail
TKC	Trans Kalahari Corridor
TKCMI	Trans Kalahari Corridor Management Committee
TKCS	Trans Kalahari Corridor Secretariat
TLC	Transport Logistics Consultant
ToR	Terms of Reference
TRAC	Trans African Concessions
TRIPS	Transport Register Information Platform System
TTTFP	Tripartite Transport and Transit Facilitation Programme
US	United States
VLMA	Vehicle Load Management Agreement
WBCG	Walvis Bay Corridor Group
WBNLDC	Walvis Bay – Ndola – Lubumbashi Development Corridor
WB	World Bank

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ACKNOWLEDGEMENTS

This Annual State of Cross-Border Operations report (ASCBOR or “Report”) was compiled by the Cross-Border Road Transport Agency (C-BRTA), in close collaboration with various stakeholders who provided invaluable input. The project especially benefited from information provided by Ministries of Transport and Regulatory Authorities in the South African Development Community (SADC) who are responsible for cross-border road transport regulation, facilitation and law enforcement. Invaluable material was also received from regional secretariats (e.g. COMESA, SADC, TKC) and Corridor Management Institutions (CMI), notably the Walvis Corridor Management Group, as well as cross-border road transport operators and operator’s associations.

EXECUTIVE SUMMARY

The ASCBOR is compiled annually by the C-BRTA with a view to advise the Minister of Transport, the Department of Transport (DoT), fellow regulatory and law enforcement authorities, CMI's, national and regional stakeholders and cross-border road transport operators of major challenges and developments that impact on cross-border road transport operations, as well as solutions that may be implemented to address infrastructure challenges and operational challenges along regional road transport corridors.

Further to the above, it is envisaged that this report will serve an input for decision-making with regards to enhancing cross-border road transport efficiency and linking regional economies and the African continent at large. A country or region's ability to compete in world markets is strongly influenced by its ability to quickly move goods, services and people, safely and cost-effectively. Hence, the need to address constraints facing the cross-border road transport industry in Africa.

This is the seventh ASCBOR and this report focuses on the Southern Africa Development Community (SADC). The 2019/20 ASCBOR seeks to equip stakeholders with invaluable information that will enable them to:

- Make informed strategic policy and regulatory decisions with respect to cross-border road transport;
- Understand and appreciate the nature and context of constraints, particularly Non-Tariff Barriers (NTB), facing cross-border road transport operators along road transport corridors in the SADC;
- Track transport developments unfolding in the SADC which seeks to eliminate, or at least reduce infrastructure inefficiencies;
- Establish progress made in implementing corridor performance monitoring systems in the SADC;
- Understand the role of PPPs in infrastructure funding and corridor management; and
- Determine interventions (reforms) that can be explored by SADC countries to address infrastructure and operational challenges that continue to prevail along regional road transport corridors.

Cross-border road transport is the dominant mode of transport in the SADC, carrying between 80% and 90% of total freight and passenger traffic movements. As such, road transport is an indispensable component of economic activities in the region and critical to facilitating cross-border trade and regional integration. Cross-border road transport provides landlocked countries with basic access to seaborne trade and international markets. Furthermore, regional integration improves the growth prospects of small economies while regional transport corridors provide a visible and direct opportunity to bring about regional integration.

There are eighteen transport corridors that traverse the SADC region. These corridors are inundated with a plethora of hard and soft infrastructure challenges which negatively affect cross-border road transport, regional trade, economic development and regional integration. Examples of infrastructure challenges include, but are not limited to:

- Missing links that result in poor network connectivity and accessibility to regional economic hubs;
- Poorly maintained road sections along regional road transport corridors;
- Inefficient border posts;
- Disjointed regulatory frameworks characterised by inefficiency and variability in regulatory requirements between Member States (MS);
- Weak institutions tasked with the responsibility of regulating cross-border road transport movements and the implementation of regional trade and transport initiatives;
- Insufficient funds for infrastructure maintenance and construction;
- Limited private sector participation in the transport sector;
- Market access restrictions, which inhibit the free movement of cross-border traffic in the SADC;
- Discrepancy in the level of Road User Charges (RUC) imposed on cross-border road transport operations; and
- Existence of various official and unofficial roadblocks and inspection points along regional road transport corridors that increase the occurrence of corrupt practices.

The above challenges culminate in poor corridor performance (e.g. congestion, delay, long transit journey and trip turnaround times, reduced safety) and high cost of doing business which negatively affects cross-border trade flows, regional economic development, regional integration and regional competitiveness. Poor corridor performance and inefficiencies in the cross-border environment are often cited as the main reason for the low level of intra-Africa trade, which is estimated at around 16%.

Corridor inefficiencies can only be resolved if they can be accurately measured. Corridor performance monitoring systems act as a vital tool for identifying bottlenecks along corridors and to challenge interventions and investment to such impediments of facilitating the seamless flow of cross-border road passenger and road freight movements. Despite its inherent advantages, no CMI in the SADC has yet implemented formal corridor performance monitoring systems (online data portals) to measure corridor performance over the entire stretch of the corridor (between origin and destination points).

A positive development in the region is noted in the launch of a SADC infrastructure web portal that outlines project dashboards for infrastructure projects in all infrastructure sub-sectors. To date project sheets have been designed for all infrastructure projects although many of them still lack essential information pertaining to project risk, project financing and project cost calculations (e.g. Cost Benefit Ratio, Financial Internal Rate of Return).

To address challenges facing the cross-border road transport environment, MS and several structures in the SADC region and the continent at large, have approved various infrastructure projects/programmes. Unfortunately, many projects have not realised much progress, owing to several reasons discussed in later sections of this report. Examples of on-going initiatives include the:

- SADC Regional Infrastructure Development Master Plan (RIDMP);
- Tripartite Transport Transit Facilitation Programme (TTTFP);
- Smart Corridors Initiative which seeks to transform selected African corridors;
- Development of Corridor Performance Monitoring System(s);
- Development of Risk-based regulatory tools and systems;

- Development of the Linking Africa Plan (LAP);
- Construction of Truck Stops along strategic road transport corridors; and
- Implementation of Joint Law Enforcement Inspections along prioritised regional road transport corridors.

This report acknowledges existing reforms (initiatives) unfolding at regional (SADC) level since their execution poses direct benefits to cross-border road transport operators. In addition to on-going reforms, it also proposes several new reforms which all seek to eliminate, or at least minimise infrastructure challenges and operational bottlenecks.

Against this background, the 2019/20 ASCBOR propose that the following reforms be implemented by all SADC MS:

Existing Reforms:

- Prioritised road transport and border post projects outlined in the SADC RIDMP;
- Regional Parliament;
- Corridor Performance Monitoring System(s);
- Truck stops along strategic transport corridors in the region;
- Quality Regulation;
- Risk-based regulatory systems;
- Joint law enforcement inspections;
- Linking Africa Plan (LAP);
- Preferred Trader Programme;
- SMART corridor initiative; and
- Pre-clearance of freight

New Reforms:

- Expand the role of the Cross Border Road Transport-Regulators Forum;
- Funding frameworks by all MS;
- Regional Monitoring and Evaluation Body;
- Dedicated cross-border ranking facilities in all MS;
- Re-engineer permit issuing processes and systems in the SADC;
- International Road Transport System;
- Corridor Patrol Programme(s);
- Strengthen the Capacity / Mandate of institutions responsible for transport and trade facilitation;
- Professionalise the cross-border road transport industry;
- Pre-clearance of cross-border road transport passengers;
- Green lanes for compliant and pre-cleared vehicles; and
- Cross-Border Transport Telematics Programme.

All reforms proposed in this report includes Action Plans that indicate the envisioned impact of reforms, as well as the stakeholders who should drive the implementation process. Several role-players are responsible for the execution of existing and new reforms. This emphasises the importance of adopting an inclusive approach that involves all corridor role-players, especially those at the highest political level.

It is foreseen that the full implementation of the report reforms will go a long way towards closing gaps in current interventions and eradicating long-standing challenges that affect cross-border road transport operations in the SADC. The implementation of recommended reforms should be corridor oriented as corridors provide a spatial framework of promoting cooperation and collaboration between countries.

Dismantling barriers to cross-border trade and transport will stimulate the growth of the cross-border road transport industry, insofar cross-border road transport operators will enjoy the benefits that go hand in hand with the seamless movement of traffic within, and across SADC MS. Furthermore, it will go a long way towards ensuring that cross-border road transport plays its strategic role with respect to linking Africa, which is a key aspiration of strategic regional and continental agreements (e.g. Tripartite Free Trade Agreement and the African Continental Free Trade Agreement).

1. OVERVIEW OF REPORT

1.1 Introduction and Background

The ASCBOR is compiled annually by the Cross-Border Road Transport Agency (C-BRTA) with a view to advise the Minister of Transport, the DoT, fellow regulatory and law enforcement authorities, CMIs as well as other national and regional stakeholders and structures on matters pertaining to the state of the cross-border road transport operations, major (policy, legislative, technical and operational) challenges, constraints and bottlenecks affecting cross-border road transport movements and developments taking place in the cross-border road transport sector in the region.

Cross-border road transport is the dominant mode of transport in SADC region (and Africa) accounting for over 80% total freight and passenger traffic movements, moving along strategic regional road transport corridors (CBRTA, 2017). It is an indispensable component of international economic activities in the SADC and critical to facilitating cross-border trade and regional integration. Road transport corridors are particularly important to SADC as 40% of the countries are landlocked and road transport is the only means for connecting these countries to sea-borne trade.

Despite the significance of the cross-border road transport sector, this sector faces many challenges. It is therefore imperative for stakeholders, especially regulatory and trade facilitation institutions, to continuously monitor the state of cross-border road transport operations to identify bottlenecks. Resolving cross-border challenges is a daunting task that requires involvement of several public and private sector stakeholders at local, national and regional level(s). For this reason, a trans-jurisdiction consultative and collaborative approach should be adopted to ensure regional-wide and corridor-wide coordinated implementation of the recommendations in this report.

The ASCBOR provides a package of solutions that may be implemented to address corridor constraints. This report outlines programmes that can be implemented by decision-making bodies in the region, to eliminate or at least reduce infrastructure challenges along regional road transport corridors (particularly NTBs) to enhance cross-border road transport system performance. As such, this report provides several options to public and private sector stakeholders to effectively respond and direct their efforts and resources to where they are needed to improve cross-border road transport operations and enhance intra and inter-regional trade.

It is important to note that tracking the state of the cross-border environment (which in this report is anchored on diagnosis of strategic road transport corridors linking the region) is the first important step towards understanding challenges facing the sector that will guide the design of potential improvement measures (reforms).

This report also serves to inform key stakeholders about major developments in the cross-border environment with a bearing on cross-border road transport and trade. It is envisaged that by updating national and regional stakeholders with on-going developments, they will be able to incorporate key elements of regional programmes into the design and implementation of local programmes. In doing so, all stakeholders will fulfil their rightful roles towards achieving key aspirations and objectives of regional protocols (e.g. SADC Protocol on Transport, Communications and Meteorology) and regional agreements (e.g. Tripartite Free Trade Agreement (TFTA) and the African Continental Free Trade Agreement.

Further to the above, the intention is that all stakeholders in the cross-border value chain can use the information appearing in this report to enhance performance of the cross-border road transport industry, which will ultimately lead to effective regulation and facilitation of cross-border road transport movements and improved connectivity and linkage of SADC region to the rest of Africa.

This is the seventh report after the successful completion of the first report in 2014, two that were finalised in 2015, one in 2016, one in 2017 and another one in 2018. The 2014 and 2015 reports largely focused on challenges facing the cross-border road transport industry, progress made towards integrating the road transport environment in the SADC, assessment of the status of commercial border posts and road safety and operator compliance in South Africa. The 2016 ASCBOR focused on trade and transport flows along prioritised corridors in the SADC, whereas the 2017 and 2018 reports focused on selected transport corridors in the Tripartite.

The past reports were shared with various public and private sector stakeholders including relevant government departments (e.g. Ministries of Transport, regional secretariats (SADC and COMESA), corridor management institutions (Walvis Bay Corridor Group), regional bodies (Federation of East and Southern African Road Transport Associations) and cross-border road transport operators. Some of the interventions/reforms recommended in past ASCBOR reports were implemented and some are currently being implemented in the East African Community (EAC), Common Market for Eastern and Southern African States (COMESA) and the SADC. This report also tracks progress with respect to the implementation of recommended interventions in previous ASCBOR reports.

1.2 Problem statement

The SADC region's economic performance and growth, level of intra and inter-regional trade, and competitiveness is heavily influenced by the performance of cross-border road transport system. There are many challenges that constrain the effectiveness of cross-border road transport system and trade flows by road in the region, which must be addressed, and that includes:

- Missing corridor links along sections of strategic road transport corridors (e.g. North-South Corridor) which hinders connectivity and increases distances for cross-border operators and traders;
- Poorly maintained regional road networks that affect transport efficiency, increases transit times and the cost of doing business which in turn affects the competitiveness of goods traded in the region;
- Weak regulatory institutions often characterised by lack of experienced technical resources to drive mandates, package infrastructure programmes and oversee their implementation;
- Disjointed regulatory frameworks depicted by variability in regulatory requirements between MS which increases the cost of compliance for cross-border operators;
- Outdated and inappropriate Information and Communications Technology (ICT) systems for facilitating the electronic sharing of information between regulatory authorities in corridors and at border posts;
- Inefficient border posts owing to ineffective border management systems, paper-based systems in some countries, onsite execution of customs clearance procedures (instead of pre-clearance), lack of ICT systems for data exchange and repetitive processes and

procedures that cause lengthy delays for commercial road transport operators at border posts;
- Inadequate border post infrastructure (e.g. signage, buildings, operating counters and parking);
- Existence of various official and unofficial roadblocks and inspection points along strategic road transport corridors that increase transit time and create opportunities for corruption by law enforcement officials;
- Lack of and poor monitoring and evaluation of prioritised infrastructure programmes and unavailability of information on the project status of such programmes;
- Market access restrictions and inappropriate models implemented to control supply-side of transport services (e.g. through permits and quota systems);
- Inefficiencies caused by MS belonging to different RECs that result in administrative and operational constraints, as well as high cost of compliance for cross-border road transport operators; and
- Conflicts in corridors targeted at foreign drivers and increased corridor criminal activities such as bus robberies.

These challenges are exacerbated by lack of reliable data on cross-border traffic flows and the absence of an integrated monitoring framework to display the current state of cross-border road transport operations in the region. The above-mentioned challenges culminate in poor corridor performance (long transit time, delays, congestion, low traffic volumes, poor safety, low corridor comfort and high operating cost), inability of the road transport system to effectively enhance cross-border trade and economic development in the SADC, as well as poor regional competitiveness. Stakeholders, especially regulatory authorities need to work together to address the above challenges and this report provides solutions that can be implemented in that respect.

1.3 Purpose of Report

The purpose of this ASCBOR report is to:

- Update stakeholders on progress achieved with respect to the implementation of interventions (reforms) recommended in previous reports (2017, 2018 and 2019 ASCBOR) aimed at addressing hard and soft infrastructure challenges along regional road transport corridors;
- Present the current state of cross-border operations to key stakeholders in the cross-border road transport value chain, through identifying corridor challenges that undermine corridor performance and the seamless flow of cross-border road traffic movements in the SADC;
- Identify and track progress with respect to existing developments (projects and programmes) being implemented in the SADC to improve the efficiency of cross-border road transport operations;
- Outline several forms of private sector financing options that should be considered for financing infrastructure projects in the region; and
- Propose recommendations (interventions) and actions plans that should be considered by relevant authorities for implementation to address cross-border challenges that exist along strategic road transport corridors that link MS in the region.

1.4 Focus of the Report

The report is focused on strategic transport corridors in the SADC region. There are eighteen (18) major transport corridors that traverse SADC. However, this report is largely limited to the following corridors which carries the bulk of cross-border road traffic movements (passengers and freight):

- North-South Corridor (NSC);
- Maputo Development Corridor (MDC);
- Trans-Kalahari Corridor (TKC); and
- Walvis Bay-Ndola-Lubumbashi Development Corridor (previously known as the Trans-Caprivi Corridor).

The rationale for focusing on these corridors was informed by the significance of the corridors in terms of cross-border traffic volumes and flow dynamics. Furthermore, all four corridors are major gateways to most land-locked countries in the SADC region.

1.5 Report Methodology

This report was compiled based on information obtained through qualitative and quantitative research. Information was obtained:

- Through surveys and participation in technical working groups in the region;
- From bilateral and regional committees including Joint Route Management Committee meetings (JRMC) and CMIs (e.g. Walvis Bay Corridor Group);
- From Ports authorities in the region (e.g. Namport in Walvis Bay);
- From Regional secretariats including the COMESA, SADC and TKC Secretariats;
- Regional bodies such as FESARTA and the CBRT-RF;
- From Cross-border road transport operators who provided invaluable insight into operational (and often undocumented) constraints experienced by cross-border road transport operators; and
- Through corridor assessments.

1.6 Outline and Scope of Report

The report is structured as follows:

- Chapter 1: Outlines the introduction and background of the ASCBOR, problem statement, purpose of the report and gives an update on progress made towards implementing reforms put forward in the 2017, 2018 and 2019 ASCBORs;
- Chapter 2: Provides an overview of constraints facing cross-border road transport operations in the SADC. This chapter includes a high-level assessment of strategic road transport corridors that traverse the region, followed by an overview of transport and logistics performance in the SADC;
- Chapter 3: Provides update on programmes and actions taken and progress made towards improving cross-border road transport operations at continental and regional (SADC) level through the implementation of tailor-made programmes. Chapter 3 also highlights stumbling-blocks that deter the timeous delivery of prioritised infrastructure programmes;
- Chapter 4: Provides a snapshot of the current state of corridor performance monitoring in the SADC region. The Trans Kalahari Corridor (TKC) is used as a case study example in determining progress made to date;

- Chapter 5: Outlines the potential role of Public-Private Partnerships (PPPs) in funding infrastructure programmes, as well as improving corridor management in the region. Apart from highlighting constraints that undermine the successful development of PPPs, chapter 5 also identifies suitable approaches to encourage infrastructure PPPs;
- Chapter 6: Outlines ongoing and recommended reforms that SADC can implement to improve corridor efficiency, with a clear distinction between new and existing reforms; and
- Chapter 7: Outlines action plans that indicate how proposed reforms can be operationalised at MS level.

1.7 Update on the Implementation of Previous ASCBOR Recommendations

Many of the recommendations to stakeholders in previous ASCBOR reports are now being implemented.

Tables 1 to 3 here-under shows the progress achieved with respect to the implementation of the recommendations outlined in the 2016/17, 2017/18 and 2018/19 ASCBOR reports.

Table 1: Tracking Progress with respect to Implementation of 2016 / 17 ASCBOR Reforms

Recommendation	Action Plan	Envisaged impact	Responsibility	Progress as at March 2020
Establish an Independent Regional Body tasked to monitor implementation of regional agreements and relevant regional programmes by MS.	Corridor role-players should establish a Regional Parliament.	• Improved delivery of regional agreements, commitments and programmes which will lead to improvement in transport efficiency, trade and regional integration; • Improved governance, transparency and accountability at MS level.	• SADC MS	• Discussions on this reform are on-going. The Cross-Border Road Transport Regulators Forum that was established by the Council of Ministers (in line with SADC Protocol) in November 2017 in Malawi will play a key role towards lobbying for the establishment of a SADC Parliament.
Fast-track the implementation of the Multilateral Cross-Border Road Transport Agreement (MCBRTA).	MS should adopt and implement the MCBRTA.	Implementation of the MCBRTA will lead to: • The implementation of quality regulation in the Tripartite; • Improved transport system performance; • Harmonisation of regulatory frameworks; • Creation of a single competitive regional road freight market; • Improved intra-regional trade and transport flows; • Improved decision-making processes due to the availability of real-time data; • Sustained economic growth and development.	• SADC MS.	• Baseline Surveys were conducted to determine the status of each country in relation to the MCBRTA requirements and standards. • Country consultations led by the Tripartite Programme Office are currently underway. • The MCBRTA was approved by the Council of Ministers responsible for transport. • Model laws and standards for implementation of the MCBRTA were adopted. • Some MS are already reviewing their domestic transport policies/legislations /regulations/systems to align it to the MCBRTA and standards.

Transform Prioritised Border Posts into One Stop Border Posts (OSBPs)	MS should implement prioritised OSBP along major road transport corridors in the region.	The implementation of OSBPs will result in: • Improved border post efficiency; • Reduction in time spent at border posts; • Reduction in total travel time and costs; • Reduction in the cost of doing business; • Improvement in transport and trade turnaround times; • Increased economic growth and development in the SADC region.	• SADC MS • SADC PPDF	• Tunduma/Nakonde border is operating as an OSBP • Construction of OSBP facilities is underway at the Kazungula and Kasumbalesa border posts. • OSBP facilities have been built at the Lebombo/Ressano Garcia border post. This border will be transformed into an OSBP once the legal frameworks have been signed by the governments of Mozambique and South Africa. • Signing of a MoU by the governments of Botswana and Namibia to establish the Mamuno/Trans-Kalahari OSBP. • Zambia and Zimbabwe working on plans to implement more OSBPs
Establish Roadside Stations / Truck stops	Corridor Management Committees should lead the implementation of truck stops along regional road transport corridors.	The implementation of strategically located Truck Stops will: • Reduce driver fatigue and the risk of accidents; • Improve road safety along regional road transport corridors; • Boost local economies with a continuous stream of travellers passing through; • Improve vehicle and cargo security and safety along regional road transport corridors; • Reduce the risk of contracting HIV / AIDS and sexually transmitted infections for drivers.	• Corridor Management Committees • SADC MS • Private sector	• Feasibility study into the establishment of truck stops along the Trans Kalahari corridor revealed several suitable locations for truck stop establishment. • Engagements with local authorities and relevant Ministries are ongoing. • Consultations led by CMIs with relevant stakeholders are on-going to promote the truck stop initiative.

Establish Corridor Road Transport Observatories.	Corridor Management Committees with support of MS should implement corridor road transport observatories.	The Implementation of observatories will: • Enhance the availability of real-time data on traffic flows; • Enable evidence-based transport policy making; • Improve decision-making by public sector bodies and corridor users; • improve the facilitation of trade and transport flows along strategic regional road transport corridors; • Improve transport competitiveness.	• Corridor Management Committees • SADC MS; • Private sector.	• Road transport observatories have been developed and implemented along the Northern and Central Transport Corridors in the EAC. • A corridor performance monitoring system has been developed and is constantly being updated to monitor the performance of several corridors in the Eastern and Southern African regions.
Develop suitable Funding Frameworks.	SADC MS should establish and implement appropriate funding frameworks.	The implementation of appropriate funding frameworks will: • Improve delivery on regional commitments; • Enable the introduction of private sector technology and innovation through PPPs; • Lead to improve trade and transport flows; • Stimulate economic growth and development.	• MS; • Private sector	• No information was available with respect to progress at time of completing this Report. Progress will be provided in the next Report.

Source: Table created for study

Table 2: Tracking Progress with respect to Implementation of 2017 / 18 ASCBOR Reforms

Recommendation	Action Plan	Envisaged impact	Responsibility	Progress as at March 2020
Establish Corridor Performance Monitoring System for the Tripartite	Corridor role-players should participate in developing a corridor performance monitoring tool for the Eastern and Southern African regions	• Availability of real-time data on traffic flows; • Evidence based transport policy making by Tripartite governments; • Improved decision-making by public sector bodies and corridor users; • Improved traffic flows along Tripartite corridors; • Increase in intra-REC trade; • Economic growth and development.	• Tripartite MS; • Public sector role-players; • Private sector; • Tripartite Secretariats; • Tripartite Coordination Mechanism and Coordination unit; • Cross-border road transport operators	• A web-based corridor performance monitoring system that measures border crossing and route trucking time according to various indicators for several corridors in the East and Southern African region, has been developed and is operational. This on-line tool is constantly being upgraded.
Implement the Multilateral Cross-Border Road Transport Agreement	Tripartite countries should implement quality regulation	• Harmonisation of regulations, instruments, systems and standards; • Reduction in the number of road accidents; • Creation of a single regional road freight market; • Improved inter and intra-regional trade and traffic flows; • Improved decision-making due to the availability of real-time data on corridor traffic	• Tripartite MS; • Council of Ministers; • RECs.	• Baseline Surveys were conducted to determine the status of each country in relation to the MCBRTA requirements and standards. • Country consultations led by the Tripartite Programme Office are currently underway. • The MCBRTA was approved by the Council of Ministers responsible for transport. • Model laws and standards for implementation of the MCBRTA were adopted. • Some MS are already reviewing their domestic transport policies / legislations /regulations / systems to align it to the MCBRTA and standards.

Implement One Stop Border Posts (OSBPs)	Tripartite countries should implement OSBPs	• Shorter clearance time at border posts due to improved border management processes; • Reduction in time spent at OSBPs; • Reduction in total travel time and cost; • Increases in inter and intra-REC traffic flows; • Economic growth and development	• Tripartite MS	• Tunduma/Nakonde border operating as OSBP • Construction of OSBP facilities is underway at the Kazungula and Kasumbalesa border posts. • OSBP facilities have been built at the Lebombo/Ressano Garcia border post. This border will be transformed into an OSBP once the legal frameworks have been signed by the governments of Mozambique and South Africa. • Signing of a MoU by the governments of Botswana and Namibia to establish the Mamuno/Trans-Kalahari OSBP. • Zambia and Zimbabwe working on plans to implement more OSBPs Signing of a MoU by the governments of Botswana and Namibia to establish the Mamuno/Trans-Kalahari OSBP.
Address Skills Gaps and Strengthen Institutional Capacity	Public sector institutions in the Tripartite should eliminate the skills gap through up-skilling of human resources.	• Improved transparency and governance; • Improved delivery on regional commitments; • Creation of a conducive environment for private sector participation; • Enhanced economic growth and development.	• Public sector institutions; • Regional bodies.	• Information on the skills gap(s) in public transport institutions is not readily available. However, various institutions embarked on skills development in key areas (road transport standards).
Obtain Alternative Sources of Funding for Infrastructure Development	Tripartite countries should obtain alternative sources of funding for infrastructure development.	• Timeous completion of prioritised projects • Improved delivery on regional commitments; • Improved monitoring of projects during and after delivery.	• Tripartite MS; • Private sector	• Within the Tripartite, public financing still constitute the bulk of resources allocated towards infrastructure projects. • Engagements between public and private sector stakeholders ongoing.

Source: Table created for study

Table 3: Tracking Progress with respect to Implementation of 2018 / 19 ASCBOR Reforms

Recommendation	Action Plan	Envisaged impact	Responsibility	Progress as at March 2020
Implement Prioritised Infrastructure Projects	Implement prioritised transport projects / programmes at Continental and Tripartite level	• Improved cross-border movements; • Time and cost savings for cross-border operators; • Just-in-time deliveries	• Tripartite MS; • Private Sector; • Development Finance Institutions.	• Priority programmes identified. • Feasibility studies ongoing. • Engagements between public and private sector stakeholders ongoing.
Establish Regional Parliaments	Establish Regional Parliaments to improve the delivery of regional commitments.	• Improved governance, transparency and accountability at MS level; • Decrease in corruption and misuse of public money; • Improved delivery on regional commitments.	• COMESA and SADC MS.	• Deliberations are on-going.
Harmonise Regulatory Frameworks and Implement Quality Regulation	Harmonise regulatory frameworks and implement quality regulation.	• Improved cross-border road transport movements; • Improved decision-making processes; • Creation of a single regional road freight market; • Intensification of regional integration efforts and progress towards establishment of a continental free trade area.	• Tripartite MS.	• Baseline Surveys were conducted to determine the status of each country in relation to the MCBRTA requirements and standards. • Country consultations led by the Tripartite Programme Office are currently underway. • The MCBRTA was approved by the Council of Ministers responsible for transport. • Model laws and standards for implementation of the MCBRTA were adopted. • Some MS are already reviewing their domestic transport policies / legislations /regulations / systems to align it to the MCBRTA and standards.
Operationalise One-Stop Border Posts (OSBP)	Implement OSBPs.	• Time savings at border posts due to improved border management processes; • Reduction in total travel time and transport costs;	• Tripartite MS.	• Tunduma/Nakonde border operating as an OSBP • Construction of OSBP facilities is underway at the Kazungula and Kasumbalesa border posts.

		• Improved reliability and predictability; • Increase in inter and intra-REC traffic flows.		• OSBP facilities have been built at the Lebombo/Ressano Garcia border post. This border will be transformed into an OSBP once the legal frameworks have been signed by the governments of Mozambique and South Africa. • Signing of a MoU by the governments of Botswana and Namibia to establish the Mamuno/Trans-Kalahari OSBP. • Zambia and Zimbabwe working on plans to implement more OSBPs.
Develop and Implement a Corridor Performance Monitoring System (CPMS) for the Tripartite	Develop and implement a corridor performance monitoring system for East and Southern Africa	• Availability of real-time data on traffic flows. • Improved decision-making by public- and private sector role-players. • Improved traffic flows along road transport corridors. • Increase in intra-REC trade.	• Tripartite MS. • Public sector role-players. • Private sector. • Tripartite Secretariats; • Tripartite Coordination Mechanism & Coordination Unit. • Cross-border road transport operators.	• A web-based corridor performance monitoring system that measures border crossing and route trucking time according to various indicators for several corridors in the East and Southern African region, has been developed and is operational. This on-line tool is constantly being upgraded. • A tool for measuring Transit Time developed. • Transit Time measurement conducted at pilot level for some key border posts along the TKC.
Boost Private Infrastructure Investing in Africa	Obtain alternative sources of funding for infrastructure development.	• Improved monitoring and evaluation of strategic projects. • Improved delivery on strategic infrastructure projects / programmes. • Improved return on investment. • Enhanced cross-border traffic flows.	• Tripartite MS • Private Sector • Development Finance Institutions	• No information was available at time of completing this report
Establish Monitoring and Evaluation (M&E) Bodies	Establish M&E bodies.	• Improved delivery of regional projects through continuous monitoring and correction. • Improved return on investment. •	• Political heads of Tripartite MS. • Private Sector.	• No information was available at the time of completing the report

Coordinate the Provision of Ranking Facilities for cross-border passenger transport	Coordinate the provision of ranking facilities.	• Incorporation of cross-border infrastructure requirements in local development and integrated transport plans. • Adequate provision of ranking facilities.	• Departments of Transport. • Regulators. • Provincial and local authorities.	• Engagement are ongoing between stakeholders responsible for cross-border road transport operations and local authorities.
Implement a Harmonised Cross-Border Charges Framework	Develop and implement a harmonised cross-border framework / system.	• Coordinated implementation of harmonised cross-border charges. • Levelling of the playing field for operators. • Fair competition.	• Departments of Transport. • Regulators.	• Most countries implemented cross-border charges. • Consultations ongoing to implement a harmonised cross-border charges framework.
Implement Mandatory Joint Law Enforcement Operations	Implement mandatory joint law enforcement,	• Reduction in duplications. • Reduction in delays and transit times. • Optimisation of resources. • Reduction in the cost of doing business. • Elimination of silo operations.	• Departments of Transport. • Regulators. • Law enforcement agencies.	• Domestic and regional consultations are on-going. • A strategy for mandatory joint law enforcement inspections are currently being developed.
Implement technology for law enforcement operations	Implement technology for law enforcement operations.	• Reduction in delays and transit times. • Optimisation of resources. • Collection and processing of information	• Departments of Transport. • Regulators. • Law enforcement agencies.	• Although some regulatory authorities in the region employ SMART technologies for law enforcement checks, not much progress has been made.
Implement Risk based regulatory and law enforcement systems	Implement risk-based law enforcement tools/systems.	• Reduction in delays and transit times. • Optimisation of resources. • Reduced cost of doing business. • Reduction in bribery and corruption.	• Departments of Transport. • Regulators. • Law enforcement agencies.	• Regional standards developed. • Technical work to design and develop regulatory tools, including implementation manuals, are on-going in the region. • Review of regulatory requirements, processes and procedures are on-going. • Training of staff on-going. • Corridor law enforcement and monitoring systems are lagging. • Customs and immigration are at various stages of implementing preferred trader/AEO/Trusted Traveller programmes

Capacitate regulatory authorities and implement ITC systems	Capacitate regulatory authorities and implement required ICT systems.	• Shorter turnaround times. • Optimisation of resources. • Improved productivity. • Reduced cost of doing business. • Reduction in bribery and corruption.	• Departments of Transport. • Regulators. • Law enforcement agencies.	• Some countries have implemented reliable ICT systems to support law enforcement operations. • Border stakeholders especially customs and immigration are working on various ICT programmes to enhance the sharing of information and to facilitate cross-border movements.

Source: Table created for study

It is encouraging to note that several reforms proposed in previous ASCBORs are now being implemented by corridor stakeholders in the region. Despite progress made, several impediments still undermine efficient cross-border road transport operations. Chapter 2 sheds light on infrastructure and operational constraints that cross-border road transport operators face when conducting business for reward in the SADC.

2. CONSTRAINTS FACING CROSS-BORDER OPERATIONS IN SADC

2.1 Introduction

Three priority corridors run through the SADC region, namely the North-South-Corridor (NSC), Maputo Development corridor (MDC) and the Dar es-Salaam corridor. The state and performance of priority corridors vary from one corridor to the next, although there are similarities in terms of nature of most infrastructure challenges.

Further to priority corridors, a few medium-priority corridors also traverse the SADC. These corridors are growing in importance due to the rise in cross-border traffic volumes and are increasingly being used by cross-border road transport operators. Examples include the Trans-Kalahari Corridor (TKC), Walvis Bay – Ndola – Lubumbashi development corridor and the Beira corridor.

A new development in the region is witnessed in on-going infrastructure improvements at the ports of Walvis Bay and Beira that are diverting traffic from strategic (and congested) road transport corridors in the region (e.g. NSC) to less trafficked, but strategically located routes, such as the TKC and the Walvis Bay – Ndola – Lubumbashi development corridors. Both corridors link the port of Walvis Bay through an integrated system of well-maintained tarred roads and rail networks with various land-locked countries in the SADC (e.g. Botswana, Democratic Republic of the Congo, Zambia, Zimbabwe and Malawi) thereby connecting countries in the interior to African and foreign markets via the port of Walvis Bay.

Chapter 2 focuses on the following corridors:

- NSC (high-priority corridor);
- MDC (high-priority corridor);
- TKC; (medium-priority corridor); and
- Walvis Bay – Ndola – Lubumbashi development corridor (medium-priority corridor)

Section 2.2 below provides a high-level diagnostic infrastructure assessment of the above corridors, inclusive of strategic border posts located along each corridor. Operational constraints faced by cross-border road freight and road passenger operators are also highlighted in section 2.3.

2.2 High-Level Overview of Prioritised Transport Corridors

The assessment of prioritised corridors was conducted according to five parameters. The outcomes of the assessment are discussed in line with the structure below.

a) A description of the route between origin and destination points;
b) Condition of transport infrastructure along the corridor:
    - Seaports;
    - Road infrastructure;
    - Truck-stops / Parks;
    - Border posts;
c) Traffic volumes;
d) Management of the Corridor; and
e) Corridor Achievements and Constraints.

2.2.1 North-South Corridor

2.2.1.1 Description of Route

The NSC extends across the territories of three Tripartite RECs (COMESA, EAC and the SADC extends for about 10 000 kilometres of road across eight countries in Southern and East Africa. (Transport World Africa: North South Corridor. May/June 2014: 28). Not only does the corridor link the port of Durban in South Africa to the Copperbelt in the DRC and Zambia, it also connects the port of Dar es-Salaam in Tanzania with the Copperbelt region from where it stretches to Malawi and back to the port of Durban.

The North-South corridor provides two distinct road routes to Lusaka and Zambia from South Africa. One goes through Zimbabwe; while the other runs through Botswana. The Zimbabwe route is shorter by around 150 km, but is often slower, due to inefficiencies at the infamous Beitbridge border crossing, where delays with documentation frequently last two or more days. (https://infrastructurenews.co.za/2016/01/15/north-south-corridor-africas-main-vein/).

Cross-border operators transporting traffic through Botswana exit South Africa via the Martin's Drift/Grobler's Bridge border crossing and exits Botswana into Zambia via the Kazungula border, from where it connects into the DRC via another problematic border, the Kasumbalesa border post. As is the case with Beitbridge, cross-border road transport operators are often delayed Kasumbalesa border for a couple of days.

Given the vast distance and various route options that cross-border road transport operators can use between South Africa and the DRC, this report only looks at the NSC section that runs from the port of Durban in South Africa to the Beitbridge border via Johannesurg, through Harare to the Chirundu border post, through Zambia to the Kasumbalesa border post, ending in Kolwezi in the DRC (Figure 1 below).

Figure 1 North South Corridor Route Description

Figure: C-BRTA. 2014

2.2.1.2 Condition of Transport Infrastructure in NSC

a) Port of Durban

Durban is the largest and most developed port in Sub-Saharan Africa offering a diverse range of port facilities. Demarcated precincts within the port provide specialised facilities for the handling of break bulk, dry bulk, liquid bulk, motor vehicles and containers. Geographically, Durban port is situated at the nexus of Southern African trade, through seaward connections with the Indian Ocean and landward, road and rail connections along the NSC.

Durban port witnessed unprecedented growth in cargo volumes over the years with around 2, 770 335 TEUs handled at this port during 2014 / 15. (PWC. Annexure to Strengthening Africa's gateways to trade. April 2018: 35). Due to capacity constraints, congestion at the port is a daily occurrence. Although the port operates around the clock, seven days a week, critical problems are experienced with respect to accessing the port. During peak periods, traffic is back up to such an extent that drivers must wait for hours, and sometimes days to get to the port.

Table 4 shows volumes handled and operational performance of the Durban port.

Table 4: Information about Durban Port

General Information	
Port authority	Transnet National Ports Authority
Port/Terminal Operator	Transnet Port Terminals
General draughts	➢ Channel depth: 12,2 m ➢ Cargo pier depth: 9,1 m ➢ Anchorage depth: 22,9 m ➢ Oil terminal depth: 10 m
Planned Developments	➢ Widening of the harbour entrance channel. ➢ Conversion of Pier 1 at the Durban container terminal to expand the capacity of the terminal. ➢ Development of new deep-water quays in the City Terminal area. ➢ Completion of Durban dig out port by 2027.
Volume and Capacity	
Container throughput (TEUs per annum)	2, 770 335
Bulk/break-bulk throughput (tonnes per annum)	42, 372 481
Design capacity (TEUs per annum)	3, 400 000
Container stacking capacity (TEUs)	13, 600
Operational Efficiency	
Lines shipping connectivity (max score is 87)	32,1
Container handling efficiency (TEUs per ship working hour)	54,9
Port infrastructure quality (max score is 7)	4,9
Container dwell time (days)	4,0
Logistics Performance Index (max score is 5)	3,65

Source: PWC. April 2018

b) Road Infrastructure

The NSC road network is the busiest transport network in the SADC region in terms of both traffic and freight volumes. (Transport World Africa. 2014: North-South Corridor: 28). Due to increased levels of mining activities, there has been an increase in the volume of commodities being transported along the NSC road network, which put pressure on the road infrastructure.

All the corridor road links in South Africa, Botswana, and Zambia are of bitumen standard and in a good condition. However, missing road links are found in Botswana, Zimbabwe and Zambia. As part of the North South Corridor Programme, the Tripartite received a grant financing of $4,9 million to undertake project preparation studies to improve the condition of critical road sections along the NSC. These sections include:

- The 64 kilometre stretch between Pandamatenga and Nata in Botswana;
- The 111 kilometre stretch from Palapye in Botswana to the Martins Drift Border post;
- The 234 kilometre stretch between Kamuzu International Turn Off and Mzimba Turn Off in Malawi;
- The 120 kilometre stretch from Bulawayo to Gwanda in Zimbabwe, and
- The 200 kilometre link from Gwanda to Beitbridge in Zimbabwe (NEPAD Planning and Coordination Agency: 2017).

Further to missing road links, cross border movements are obstructed by the lack of a reliable bridge structure across the Zambezi River. This problem is currently being attended to with the construction of the Kazungula bridge at the Zambezi river and Chobe river intersection where Zimbabwe, Zambia, Botswana and Namibia meet. This project is scheduled for completion towards the end of 2020. (https://www.thesouthafrican.com/travel/good-news-sa-travellers-one-bridge-connect-all/).

c) Truck Stops/Parks

There are multiple stop-off points for truckers along the NSC road network. Most cross-border drivers make use of rest facilities provided in larger towns and cities for safety, infrastructure and fuel-quality reasons. However, a need exists to improve the quality and facilities provided at truck-stops, especially in Zambia. During the end of 2016, Botswana announced the building of several truck stop facilities for cross-border operators. To date, this initiative has moved forward to the construction / implementation phase.

FESARTA, Transport Logistics Consultants (TLC) and the International Road Transport Union (IRU) launched the TRANSPark, a free online application (app) that assist truck drivers in finding secure and comfortable parking on routes thereby enabling them to better plan their routes and rest stops in floodlit, guarded areas from Durban, South Africa to Tanzania, including in Botswana, Democratic Republic of Congo, Mozambique, Zambia and Zimbabwe. The application can be downloaded for free from iTunes and from Google Play. (https://infrastructurenews.co.za/2015/12/09/fesarta-partners-with-iru-on-northsouth-corridor/).

Although this initiative will assist cross-border drivers in choosing the best facilities to re-fuel their vehicles and rest, the real issue remains – there is a lack of developed and evenly spread truck stop facilities along the NSC.

c) Border Posts

Cross-border road transport operators move through various border posts on-route from Durban to the DRC. Table 5 shows the strategic border posts along the NSC.

Table 5: Border Posts along the North South Corridor

Border Post	Countries Sharing border	OSBP Candidate
Kasumbalesa	DRC – Zambia	Already functioning as an OSBP
Tunduma	Tanzania – Zambia	Already functioning as an OSBP
Songwe	Tanzania – Malawi	✓
Victoria Falls	Zambia – Zimbabwe	✓
Chirundu	Zambia – Zimbabwe	Already functioning as an OSBP
Kazangula	Zambia – Botswana	✓
Mchinji	Zambia – Malawi	✓
Zobue	Malawi – Mozambique	X
Dedza	Malawi – Mozambique	X
Beitbridge	South Africa – Zimbabwe	✓
Lobatse	South Africa – Botswana	X
Gaborone	South Africa – Botswana	X
Martin's Drift	South Africa – Botswana	X
Nyamapanda	Zimbabwe – Mozambique	X

Source: Trans World Africa. May/June 2014

Due to the existence of various hard and soft infrastructure bottlenecks at the above strategic border posts, heavy congestion is experienced at all borders. To bring about improvement, various One-Stop Border Post (OSBP) projects have been approved for implementation along the NSC. As shown in table 5, the Songwe, Kazungula, Mchiji and Beitbridge border posts will be transformed into OSBP in future, whereas the Kasumbalesa, Tunduma and Chirundu borders already functions as one stop borders. Although the Kasumbalesa border has been operationalised as an OSBP, infrastructure challenges experienced at this border still result in trucks waiting in long queues. The following are the major constraints at the border:

- Poor condition of certain sections of road, especially the stretch from Chililapombwe – the border town to the border post (20 kms) and from Kasumbalesa to Whisky (15km);
- Limited pre-clearance of goods;
- Border not open all day round (24/7); and
- Existence of many informal traders selling all kinds of goods (e.g. electronic appliances, agricultural produce, hazardous goods, heavy mining machinery and parts, fuel and many other consumables) obstruct entry to the border (https://www.nepad.org/news/towards-effortlessly-moving-people-and-goods-across-borders:).

The Chirundu OSBP is also not immune to episodes of dysfunction and this result in long delays and chaos at the border. Some of the challenges experienced at Chirundu include:

- Significant downtime of electronic customs systems;
- Inadequate training of new border agency staff;

- insufficient office space on either side of the border for officers from the other country; and
- A lack of appropriate signage on the approach to the OSBP and inside the customs control zone (https://africanbusinessmagazine.com/uncategorised/sadc-nightmare-for-commercial-truckers/).

Construction activities at the Kazungula border post is on-going and is on track for completion by 2020.

2.2.1.3 Traffic Volumes along the North South Corridor

Up to date data regarding freight and passenger flows along the NSC is not readily available. The absence of a dedication institutions, tasked with the responsibility to consolidate data, as well as managing the complexities facing traffic flows on the NSC is regarded as one of the reasons for the scarcity of corridor data.

Approximately 95% of goods transported along the NSC is carried by road that connects various inland markets and land-locked countries along the NSC to the port of Durban. Regarding the composition of traffic, exports constitute of mainly primary commodities (agricultural and mining commodities), whereas imports are mostly manufactured goods.

South Africa has an exceptionally healthy trade balance with Zimbabwe since it exports far more goods to Zimbabwe, compared to what it imports from Zimbabwe. This tendency manifests itself in a severe imbalance of freight flows along the NSC, which adds to the cost of doing business along the corridor. Due to the regular occurrence of empty hauls, transport costs along the NSC is almost double that of other corridors where inbound and outbound traffic movements is equal. (Transport World Africa. May/June 2014: 28). Table 6 shows the *trade volumes* (in different units of measurement) and *values* (in South African Rand) of cross-border traffic movements between South African and Zimbabwe between 2017 and 2018. Cross-border traffic passed through the Beitbridge border post.

Table 6: Trade Volumes and Values handled at the Beitbridge Border Post (2017 and 2018)

EXPORTS						
Units	**Value (Rands)**			**Volume**		
	2017	**2018**	**Year on Year**	**2017**	**2018**	**Year on Year**
CT	1,600	3,639	127%	320	10	-97%
KG	65,682,684,562	39,643,643,718	-40%	4,617,377,280	2,495,630,230	-46%
LI	2,982,840,437	2,382,185,784	-20%	263,676,079	205,678,240	-22%
MC	81,693,776	72,967,867	-11%	2,857,040	4,342,770	52%
ME	21,233		-100%	60		-100%
MW		132			2	
NO	18,140,948,504	13,122,184,955	-28%	43,838,245	23,973,081	-45%
PR	324,563,510	154,428,394	-52%	4,619,693	1,402,447	-70%
SM	776,592,375	471,432,467	-39%	17,626,595	63,313,736	259%
Total	**87,989,345,997**	**55,846,846,956**	**-37%**	**4,949,995,310**	**2,794,340,517**	**-44%**

	IMPORTS					
CT		14,124			100	
KG	4,466,976,083	5,157,023,672	15%	500,892,478	617,715,076	23%
LI	8,223,285	1,684,724	-80%	13,452,708	68,835	-99%
MC	16,562,731	13,719,533	-17%	10,971	58,650	435%
NO	534,103,530	570,931,477	7%	1,143,845	1,657,513	45%
PR	1,326,681	2,036,163	53%	2,251	2,073	-8%
SM	22,488	19,286	-14%	2,453	1,563	-36%
Total	**5,027,214,798**	**5,745,414,855**	**14%**	**515,504,706**	**619,503,710**	**20%**
Grand Total	**93,016,560,795**	**61,592,261,811**	**-34%**	**5,465,500,016**	**3,413,844,226**	**-38%**

Source: South African Revenue Services

Abbreviation	Meaning	Example
CT	Carat	Diamonds
KG	Kilogram	Processed meat
LI	Litre	Fuel or liquids
MC	Microgram	Chemical compounds
ME	Milligram	Medicinal products
MW	Megawatt	Electricity
NO	Number	Live animals
NULL	Unclassified goods	Footwear
PR	Pair	Footwear
SM	Square metre	Carpets or tiles

2.2.1.4 Management of the Corridor

The NSC does not have a centralised Corridor Management Committee (CMI) assigned, with the responsibility to manage and work towards development of the corridor. This creates a challenge with regards to the coordination of corridor stakeholders and programmes. The absence of a dedicated management entity is partly to blame for the delayed implementation of various corridor initiatives (e.g. Beitbridge OSBP).

It should be borne in mind that the NSC links 3 RECs (COMESA, EAC and SADC) which brings another level of complexity to the management of the corridor. Developments towards establishing a management entity for the NSC is noted in on-going negotiations between the Ministers of Transport in the SADC to establish an NSC Management Institution (NSCMI). Progress include the development of a Memorandum of Understanding (MoU) for the NSC that provides for the establishment of a NSCMI.

2.2.1.5 Corridor Achievements and Constraints

The NSC is the busiest and longest transport corridor crossing the SADC. Corridor achievements include, but are not limited to:

- Transformation of the Kasumbelesa and Tanduma border posts into OSBPs, while the construction of OSBP facilities at the Kazungula border is nearing completion; and
- Some (although limited) movement on implementing prioritised NSC road-rail projects.

Some of the issues, challenges and constraints in the corridor include:

- Absence of a dedicated CMI to facilitate stakeholder discussions and oversee the implementation of strategic infrastructure programmes along the NSC;
- Absence of a financing model that incorporates the approach to financing infrastructure development on the entire NSC;
- On-going capacity constraints at the port of Durban increase container dwell time and costs for importers;
- Lengthy delays are experienced at most border posts, including Chirundu and Kasumbalesa that has been transformed into OSBPs. Although delays are caused by various factors, limited opening hours of borders agencies at the border are one cause for the queuing of commercial freight vehicles at strategic border posts;
- Poorly maintained roads and missing road links in Botswana, Zimbabwe and Zambia increase total journey time and pose a safety threat;
- The irregular placement of truck stops and the absence of adequate facilities at several stations (especially rest stops further north) cause safety and security concerns for cross-border transporters; and
- Corruption and bribery are rift on the NSC. Corrupt activities partly contribute to accidents, stimulation of illegal trade (importation of counterfeit goods) and human trafficking.

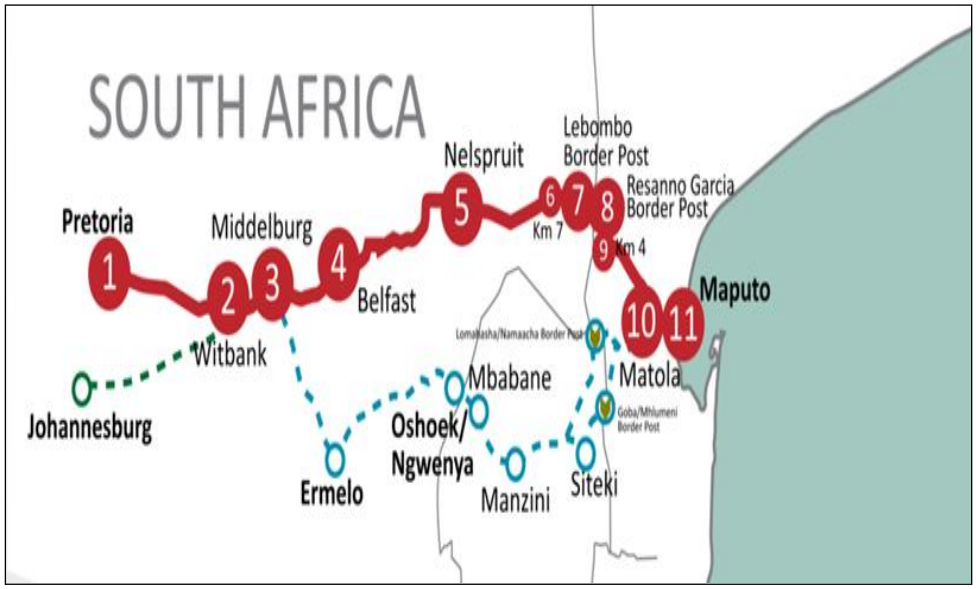
2.2.2 Maputo Development Corridor

2.2.2.1 Description of Route

The MDC is the main corridor that connects the landlocked regions of South Africa (Gauteng, Mpumalanga and Limpopo) and the Kingdom of eSwatini (previously known as Swaziland) to Mozambique and the port of Maputo. This corridor is widely acknowledged as a true transportation corridor, comprising road, rail, border posts, port and terminal facilities. The main road on the South African side of the MDC is the N4, a two to four-lane national toll road. In Mozambique the N4 becomes the EN4 after crossing the Mozambican side of the border and progresses to Maputo.

The EN4 is connected to the port in Maputo by a new port access road, which carries heavy road traffic clear of downtown Maputo and connects the harbour directly with the M4 Highway running 600 km westwards through the industrial and mining heartlands of South Africa. Figure 2 below shows the MDC graphically.

Figure 2 Maputo Development Corridor Route Description



Source: C-BRTA. 2014

2.2.2.2 Condition of Transport Infrastructure

a) Port of Maputo

Maputo port has significant regional potential as an important gateway to South Africa and other regional countries such as Botswana, Swaziland and Zimbabwe. Continuous infrastructure improvements programmes - i.e. dredging of the 76 km approach channel, upgrading of the container depot, extension of the current car, ferry, coal and container terminals, the extension of quays and rail sidings and the refurbishment of old warehouses and construction of new ones – makes Maputo port competitive for regional and international markets (https://www.businesslive.co.za/fm/features/africa/2018-11-22-maputos-massive-infrastructure-facelift/).

Table 7: Information about Maputo Port

General Information	
Port authority	Maputo Port Development Company
Port / Terminal Operator	Maputo Port Development Company
General draughts	➢ Channel depth: 7,6 m ➢ Cargo pier depth: 9,1 m ➢ Anchorage depth: 12,2 m ➢ Oil terminal depth: 10 m
Planned Developments	➢ Dredging of harbour; ➢ Upgrading and re-alignment of road and rail networks; ➢ Construction of new road entrance at the western side of the port ➢ Railway line upgrade between the port and Southern African side of border.

General Information	
Volume and Capacity	
Container throughput (TEUs per annum)	124, 170
Bulk / break-bulk throughput (tonnes per annum)	18, 738 634
Design capacity (TEUs per annum)	150 000
Container stacking capacity (TEUs)	2 396
Operational Efficiency	
Lines shipping connectivity (max score is 87)	9,4
Container handling efficiency (TEUs per ship working hour)	25
Port infrastructure quality (max score is 7)	3,6
Container dwell time (days)	22
Logistics Performance Index (max score is 5)	2,48

Source: PWC. April 2018

b) Road Infrastructure

Most traffic movements along the MDC occur along the N4 and EN4 road networks. The condition of road infrastructure on both highways is very good. The EN4 road stretches over around 90 km to Maputo port before terminating closely to the downtown area of Maputo.

The MDC also forms part of a greater transport axis linking the Atlantic and Indian Ocean together via the SADC region. From as far east as the deep-sea port of Walvis Bay in Namibia, the TKC connects Namibia's capital, Windhoek, with landlocked Botswana's capital, Gaborone, via the vast expanse of the Kalahari Desert. From there, direct rail and road links connect Gaborone with the Maputo Corridor, passing through Mafikeng (capital of South Africa's Northwest Province), Pretoria (South Africa's executive capital), Johannesburg (capital of Gauteng province), Nelspruit (capital of Mpumalanga) and Mozambique's capital, Maputo.

c) Truck-Stops / Parks

There are no formal truck stops located along the MDC. A few informal stops are found near the N4 highway. One example includes Cool Ideas Truck Stop, situated approximately 1 km from the N4 on the R35, Bethal road near Middelburg, Mpumalanga. The Lebombo Border Dry Port, developed on the former Komatipoort airport site and located alongside the N4 highway, with safe and easy slip roads off and back onto the Maputo Corridor route, offers a truck stop with 24- hour diesel supplies, weighbridge, overnight accommodation with bathroom and shower facilities (for truck drivers, passengers and taxi driver) a restaurant, convenience store and mini warehousing. (lbdp.co.za/).

d) Border Posts

Cross-border transporters moving commodities along the N4 highway cross into Mozambique at the Lebombo/Ressano Garcia border post. The topography of this border makes it difficult to develop or expand border post infrastructure. As a result, the border experiences high levels of congestion, especially during peak-periods (Festive Season and Easter). Although the Lebombo/Ressano Garcia border is earmarked as an OSBP candidate, and while OSBP infrastructure has already been built, this border is still functioning as a traditional border post.

The operationalisation of Lebombo into an OSBP will only occur once the legal framework(s) has been signed by affected MS (South Africa, eSwatini and Mozambique) and ratified by MS Parliaments.

Cross-border operators moving traffic along road networks in Swaziland can cross into Mozambique at the Lomahasha / Namaacha border and Goba / Mhlumeni borders, whereas South African operators can cross into Swaziland via the Jeppe's Reef / Matsomo border (see table 8).

Table 8: Border Posts along the Maputo Development Corridor

Border Post	Countries Joined	OSBP Candidate
Lebombo/Ressano Garcia	South Africa/Mozambique	✓
Lomahasha/Namaacha	Swaziland/Mozambique	X
Goba/Mhlumeni	Mozambique/Swaziland	X
Jeppe's Reef/Matsomo	South Africa/Swaziland	X

Source: Table created for study

2.2.2.3 Traffic Volumes along the Maputo Development Corridor

The MDC is a busy trade route, despite being a short route with a route distance of only 590 km from Johannesburg and 560 km from Pretoria to Maputo. Over the past 15 years the MDC has seen exponential growth in trade and investment across the border between South Africa and Mozambique. There are two main freight flows along the MDC:

- Road freight which consists of bulk and other commodities from Mpumalanga for export and goods from Gauteng for domestic consumption in Mozambique; and
- Rail freight which consists of bulk exports in Mpumalanga and Limpopo provinces, destined for export through Maputo port.

Trade relations between South Africa and Mozambique favours South Africa, insofar most exports (around 96%) are exported from South Africa, with Mozambique only importing 4% of goods from South Africa. (C-BRTA. 2019: 56). This imbalance often results in empty back-hauls along the MDC that increases the cost of doing business along this corridor.

Most cross-border traffic movements take place at the Lebombo / Ressano Garcia border post that connects South Africa with Mozambique. Table 9 illustrates the *trade volumes* (in different units of measurement) and *values* (in South African Rand) of cross-border traffic that moved between the two countries. The text box below table 9 elaborates on the meaning of the different units.

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Table 9: Trade Volumes and Values handled at the Lebombo/Ressano Garcia Border Post (2017 and 2018)

EXPORTS						
	Value (Rands)			Volume		
Units	2017	2018	Year-on-Year	2017	2018	Year-on-Year
KG	75,113,123,406	42,216,917,558	-44%	24,305,040,344	14,710,986,700	-39%
LI	606,399,971	302,905,860	-50%	42,050,912	21,669,462	-48%
MC	238,165,852	121,466,388	-49%	1,094,241	2,710,437	148%
ME	157,416		-100%	374	-	-100%
MW	97,440		-100%	2,000	-	-100%
NO	5,472,256,479	3,601,240,141	-34%	15,720,044	10,087,476	-36%
PR	134,839,738	63,502,825	-53%	1,097,065	681,321	-38%
SM	124,284,697	63,272,266	-49%	4,552,416	769,402,376	16801%
Total	**81,689,324,999**	**46,369,305,038**	**-43%**	**24,369,557,396**	**15,515,537,772**	**-36%**
			IMPORTS			
KG	1,790,156,276	1,590,230,592	-11%	298,804,251	338,418,814	13%
LI	2,353,487,001	2,330,600,104	-1%	378,977,323	323,866,050	-15%
MC	6,067,629	8,615,130	42%	170,676	269,529	58%
NO	147,626,642	234,024,277	59%	255,115	277,823	9%
PR	135,893	251,167	85%	639	6,745	956%
SM	472,776	708,420	50%	3,925	17,326	341%
Total	**4,297,946,217**	**4,164,429,690**	**-3%**	**678,211,930**	**662,856,287**	**-2%**
Grand Total	**85,987,271,216**	**50,533,734,728**	**-41%**	**25,047,769,326**	**16,178,394,059**	**-35%**

Source: South African Revenue Services

Abbreviation	Meaning	Example
CT	Carat	Diamonds
KG	Kilogram	Processed meat
LI	Litre	Fuel or liquids
MC	Microgram	Chemical compounds
ME	Milligram	Medicinal products
MW	Megawatt	Electricity
NO	Number	Live animals
NULL	Unclassified goods	Footwear
PR	Pair	Footwear
SM	Square metre	Carpets or tiles

2.2.2.4 Management of the Corridor

The Maputo Corridor Logistics Initiative (MCLI) was established as the first private sector corridor management institution on the African continent in 2004 to create greater awareness for and foster better utilisation of the MDC. The incorporation in South Africa as a Section 21 (non-profit) membership organisation positioned the MCLI advantageously to coordinate the views of various role-players (public and private sector) and users of the corridor. Furthermore the MCLI engaged regularly with the governments of South Africa, Mozambique and eSwatini to accomplish the following goals:

- Remove barriers along the MDC;
- Inform the market of developments along the corridor, and
- Market the strategic benefits and opportunities of using the MDC to make this corridor the first choice for importers and exporters.

From the outset, the MCLI was plagued by the twin challenges of capacity and funding. Since 2015 the struggle intensified with the staff complement reduced from four people to just two. This development made it difficult for the organisation to do justice to its mandate and to ensure the MCLI cover all its bases. Unfortunately, the funding issues and human resources challenges could not be addressed and as a result the MCLI closed its doors on 28 February 2019.

2.2.1.5 Corridor Achievements and Constraints

Corridor achievements include, but are not limited to the following:

- Continuous infrastructure improvements at the port of Maputo has increased port capacity and reduced through-put costs at the port;
- Excellent corridor management and coordination provided by the MCLI over the years that led to a reduction in transport and transit costs along the MDC;
- Exponential growth in trade and investment along the MDC between 2004 and 2019;
- Well-maintained road infrastructure between South Africa and Mozambique;
- The building of a freight bypass road and designated cargo processing facilities (referred to as Km7 and Km4) has allowed for freight to be cleared in a one-stop operation at KM7 on the South African side, before the border post. Thus, only the handover of documents is necessary at the border, with the process replicated at KM4 on the Mozambican side for cargo moving into South Africa. This achievement has resulted in significant traffic flow improvements through the border post; and
- OSBP infrastructure has been constructed at the Lebombo / Ressano Garcia border post.

Despite the above successes, several challenges prevail, and they include the following:

- Utilisation of the port of Maputo is severely constrained by insufficient rail services to the port and port congestion that materialise in delays at the port;
- There is a lack of sufficient rail capacity along the MDC. Furthermore, the high prices set by Transnet Freight Rail (TFR) for transporting goods on the Maputo line increases the cost of doing business;

- The operating hours of the Lebombo border which operates for 18 hours per day is not aligned to the port of Maputo (24 hours per day). Because of non-alignment, cross-border vehicles pile up at the border entrance during night when the border closes;
- The Lebombo / Ressano Garcia border post still operates as a traditional two-stop border even though OSBP infrastructure has been build;
- There is an unequal flow of traffic along the corridor, with South African exports outweighing Mozambique imports by far. The status quo increases operational difficulties and logistics costs for traders who use the MDC; and
- Only a limited number of truck stops are located along the MDC.

2.2.3 Trans Kalahari Corridor

2.2.3.1 Description of Route

The TKC stretches over approximately 1 900 km across the territories of Botswana, Namibia and South Africa. This corridor starts in the Gauteng Province in South Africa and continues through Rustenburg and Zeerust in the North-West Province, through Lobatse and Kanye in Botswana, the Mamuno and Trans Kalahari Border Posts, through Gobabis, Windhoek and Okahandja in Namibia to the port of Walvis Bay (http://www.tkCMI.com/index.php/about-us). Figure 3 below illustrates the route graphically.

Figure 3: Trans Kalahari Corridor: Route Description

Source: Source: ASCBOR. 2017

The TKC forms part of the larger Walvis Bay corridor, which consists of 4 transport routes, namely:

- TKC;
- Walvis Bay – Ndola – Lubumbashi Development Corridor;
- Trans Cunene Corridor; and
- Trans Oranje Corridor.

Road network linkages across all the above corridors create a strategic road network. The TKC also connects the ports of Walvis Bay with the Maputo corridor, resulting in the Coast-to-Coast corridor. The TKC is known for providing a short transport link across the entire breadth

of the Southern African sub-continent. Compared to the traditional routes via southern Namibia to Gauteng in South Africa, the TKC cuts the distance by 400 km, making it a preferred route to transport users. (http://www.tkCMI.com/index.php/about-us).

2.2.3.2 Condition of Transport Infrastructure

a) Port of Walvis Bay

The port of Walvis Bay is Namibia's largest commercial port, receiving approximately 3,000 vessel calls each year and handling about 5 million tonnes of cargo. (https://www.namport.com.na/ports/welcome-to-the-port-of-walvis-bay/522/). This port which is positioning itself as a trans-shipment port for the SADC is ideally positioned as the preferred route to emerging markets in Botswana, Zambia, Zimbabwe, Angola, Malawi and the DRC.

The port of Walvis Bay is linked to Namibia's air, rail and road network, making it ideally placed to service landlocked countries in the region. The Walvis Bay transport corridors allow easy access to the hinterland. Furthermore, Walvis Bay provides a cost-effective alternative to seaports in South Africa, which operate at maximum capacity and whose turn-around times on cargo handling are dependent on weather conditions. No delays are experienced at Walvis Bay due to bad weather.

Container imports, exports and trans-shipments, as well as bulk and break-bulk of various commodities are examples of operational activities undertaken at the port of Walvis Bay. Table 10 provides more information on volume and capacity, as well as operational efficiency at Namibia's largest commercial port.

Table 10: Information about Walvis Bay Port

General Information	
Port authority	Namibian Ports Authority (NAMPORT)
Port / Terminal Operator	Walvis Bay Bulk Terminal (Pty) Ltd
General draughts	➢ Channel depth: 23,2 m ➢ Cargo pier depth: 10 m ➢ Anchorage depth: 23,2 m ➢ Oil terminal depth: 10 m
Planned Developments	➢ Extension of the quay length in the port. ➢ Development of the North Port. ➢ Construction of the new liquid bulk terminal for oil is on-going.
Volume and Capacity	
Container throughput (TEUs per annum)	131 180
Bulk / break-bulk throughput (tonnes per annum)	1 613 401
Design capacity (TEUs per annum)	350 000
Container stacking capacity (TEUs)	3 875
Operational Efficiency	
Lines shipping connectivity (max score is 87)	13,6
Container handling efficiency (TEUs per ship working hour)	22
Port infrastructure quality (max score is 7)	5,2
Container dwell time (days)	8
Logistics Performance Index (max score is 5)	2,66

Source: PWC. April 2018

b) Road Infrastructure

The TKC road network is a surfaced road that is in a good condition. Infrastructure impediments relate mostly to Namibia in the form of incomplete road works and narrow road infrastructure. A lack of road signage in Namibia and Botswana and the absence of properly designed truck stops along the corridor pose a safety threat to commercial road transport operators.

c) Truck Stops / Parks

Even though the TKC is predominantly a road transport corridor there are no properly designed truck stops along this corridor. As a result, many drivers sleep in their trucks and stop at multiple locations to rest, eat or access health services. In April 2014 the Trans-Kalahari Corridor Management Committee (TKCMI) announced the findings of a feasibility study, conducted into the establishment of new truck stops along the TKC. This study proposes the establishment of 4 new truck stops at an investment cost of approximately R55-million, excluding the cost of the land, which is expected to be priced at municipal value (http://www.engineeringnews.co.za/article/trans-kalahari-corridor-wants-more-truck-stops-as-regional-road-freight-increases-2014-04-29).

To date, limited progress has been made with regards to the establishment of new truck stops along the TKC. Although the Trans Kalahari Corridor Secretariat (TKCS), who is leading the stakeholder consultation process is actively trying to get all role-players o board, unresolved land use claims (road boards not wanting to avail land for truck stop development) and funding issues have delayed the implementation of the truck stop initiative.

d) Border Posts

The TKC connects 3 countries in the region, Namibia, Botswana and South Africa. The following border posts are located along the 1900 kilometre stretch of the TKC:

- Buitepos / Mamuno – (Namibia / Botswana); and
- Pioneer Gate / Skilpadshek – (Botswana / South Africa).

Of the two border posts along the TKC, the Buitepos / Mamuno border post is earmarked for transformation into an OSBP while the other (Pioneer Gate / Skilpadshek) will remain a conventional two-stop facility.

Table 11: Border Posts along the Trans Kalahari Corridor

Border Post	Countries Joined	OSBP Candidate
Buitepos / Mamuno	Namibia / Botswana	✓
Pioneer Gate / Skilpadhek	Botswana / South Africa	X

Source: Table created for study

None of the above-mentioned border posts are currently operating 24 hours per day. Furthermore, in the absence of ICT systems integration, most clearance procedures still take place at the borders, causing bottlenecks and time delays when heavy traffic flows are experienced.

2.2.3.3 Traffic Volumes along the Trans Kalahari Corridor

Cross-border traffic transported by road from the port of Walvis Bay moves through the Buitepos / Mamuno and Pioneer / Skilpadshek border posts on-route to South Africa. Real-time data on corridor flows is scarce and no data could be obtained on cross-border road traffic movements between Namibia and Botswana (Buitepos / Mamuno border).

The C-BRTA is trying to address this gap in the market and undertakes quantitative studies on a regular basis to obtain real-time corridor data. The Agency recently completed a study on trade volumes and flows through South African border posts. Table 12 below illustrates *trade volumes* (in different units of measurement) and *values* (in South African Rand) of cross-border traffic that moved across the Pioneer / Skilpadshek (Botswana – South Africa) border between 2017 – 18. The text box underneath table 12 gives the meaning of the different units.

Table 12: Trade Volumes and Values handled at the Pioneer / Skilpadshek Border Post (2017 and 2018)

	EXPORTS					
Units	Value (Rands)			Volume		
	2017	**2018**	**Year-on-Year**	**2017**	**2018**	**Year-on-Year**
CT	42,573	83,420	96%	7	8	19%
KG	17,395,962,941	18,286,405,323	5%	1,007,559,491	1,037,784,839	3%
LI	2,649,532,932	5,386,427,479	103%	330,933,894	722,214,057	118%
MC	326,301,534	371,669,424	14%	1,704,058	1,267,449	-26%
ME	272,317	269,463	-1%	2,928	9,975	241%
MW	38,640			23		-100%
NO	6,335,274,071	6,725,444,726	6%	28,354,728	48,472,399	71%
PR	424,282,977	427,346,785	1%	7,162,811	7,138,402	0%
SM	154,864,619	160,349,589	4%	1,724,042	1,866,727	8%
Total	**27,286,572,604**	**31,357,996,209**	**15%**	**1,377,441,982**	**1,818,753,855**	**32%**
	IMPORTS					
CT	400,000	23,550	-94%	80,000	157	-100%
KG	1,729,720,607	2,031,782,723	17%	265,567,626	263,968,212	-1%
LI	750,551,155	984,317,079	31%	53,859,172	70,548,983	31%
MC	1,931,954	16,569,471	758%	2,943	161,349	5383%
	2,150		-100%	28		-100%
NO	202,908,922	347,844,917	71%	195,007	197,181	1%
PR	11,126,886	6,471,029	-42%	47,902	51,207	7%
SM	12,266	95,332	677%	58	413	613%
Total	**2,696,653,940**	**3,387,104,101**	**26%**	**319,752,735**	**334,927,502**	**5%**
Grand Total	**29,983,226,544**	**34,745,100,310**	**16%**	**1,697,194,718**	**2,153,681,357**	**27%**

Source: South African Revenue Services

Abbreviation	Meaning	Example
CT	Carat	Diamonds
KG	Kilogram	Processed meat
LI	Litre	Fuel or liquids
MC	Microgram	Chemical compounds
ME	Milligram	Medicinal products
MW	Megawatt	Electricity
NO	Number	Live animals
NULL	Unclassified goods	Footwear
PR	Pair	Footwear
SM	Square metre	Carpets or tiles

2.2.3.4 Management of the Corridor

The Trans Kalahari Corridor Management Committee (TKCMI) is the Executive Body of the TKC, assigned with the responsibility to manage corridor operations. This body comprises of public and private sector stakeholders - a Public-Private Partnership (PPP) which serves as the transmission belt for the regulation and oversight of the development and implementation of various trade and transport facilitation initiatives.

2.2.3.5 Corridor Achievements and Constraints

Over the years the TKC has established itself as an efficient transport corridor. Corridor successes, include, but are not limited to the following:

- The road network is generally in a good condition, although narrow in Namibia;
- Progress towards transforming the Buitepos/Mamuno border post is noted in the completion of a feasibility study for OSBP establishment and the formation of national negotiating committees at MS level; and
- Massive infrastructure programmes at the port of Walvis Bay, notably the construction of a new container terminal, is nearing completion. Upon completion, Walvis Bay will be able to accommodate post-Panamax vessels. This may lead to a diversion of traffic from South African ports (Durban and Cape Town).

Despite the above successes, several impediments undermine the seamless flow of traffic along the TKC. Examples of constraints include the following:

- Border posts along the TKC still act as two-stop borders and are not operational 24 hours per day;
- There is a general lack of safety along the TKC;

- The TKC runs through a fragmented regulatory environment of 3 different countries which affects the capacity to harmonise and coordinate trade and transport initiatives across the corridor; and
- The absence of truck stops imposes a danger to drivers along the TKC.

2.2.4 Walvis Bay – Ndola – Lubumbashi Corridor

2.2.4.1 Description of Route

The Walvis Bay – Ndola- Lubumbashi Development Corridor (WBNLDC) links the port of Walvis Bay with Zambia, the Southern Democratic Republic of the Congo (DRC) and Zimbabwe. This corridor also connects via Zambia into Malawi and Tanzania. The WBNLDC runs via the former Caprivi strip in north-eastern Namibia and enters Zambia via the Katima Mulilo bridge. Using the Port of Walvis Bay and existing road and rail networks, the WBNLDC continues to provide an additional safe and reliable trade route for both Zambia and Southern DRC for cross-border road transport operators.

2.2.4.2 Condition of Transport Infrastructure

a) Port of Walvis Bay

Walvis Bay is an important logistical port for the SADC, providing port facilities for the import and export of cargo for SADC MS. In 2017, Walvis Bay handled 93,1% of total cargo (gross tonnage) transiting to and from neighbouring countries. Zambia, Angola, DRC, Botswana and Zimbabwe are the main markets for transit cargo by volume. (https://www.namport.com.na/news/383/walvis-bay-port-investments-to-grow/).

Walvis Bay port is linked to Namibia's air, rail and road network, positioning itself strategically in servicing land-locked countries in the SADC. Each of the 4 Walvis Bay transport corridors allow easy access to the hinterland. Information pertaining to the port is articulated in section 2.2.3.2

b) Road Infrastructure

The WBNLDC stretches over a distance of 2 500 km, linking the Port of Walvis Bay with Zambia, via the Katima Mulilo bridge and continues through Zambia to the Southern DRC and Zimbabwe. Various commodities are transported via road along this corridor, including agricultural products, perishables and consumables (e.g. meat, chicken and fish).

The signing of the Trilateral Road Transport Agreement between Namibia, Zambia and the DRC in April 2016, has led to the fast tracking of the construction and rehabilitation of the Western Corridor that runs through Zambia. Three of the roads to be rehabilitated form part of the Trans-African Highway and opens economic trade routes with Angola, Botswana, DRC and Namibia. Progress to date includes the rehabilitation of the Sesheke – Senanga road (M10) which is in a good condition and upgrading the road between Sioma and Nangweshi to a bituminous standard.

With the completion of the Sioma Bridge across the Zambezi River, the finalisation of the Walvis Bay-Ndola-Lubumbashi Development Corridor continues. "The section between Senanga and Mongu on the M9 Road is in a relatively fair to good condition. (https://www.facebook.com/walvisbaycorridorgroup/photos/a.431200107046467.1073741828.430744313758713/684542268378915/?type=3).

c) Truck Stops / Parks

In Namibia and throughout most of the SADC region transport routes are mostly road based. Given the long distances associated with many of these routes, and the relative scarcity of urban settlements along the transport corridors, issues of road safety, driver fatigue and cargo security become important considerations.

Roadside facilities are scarce and scattered along all Walvis Bay corridors, with reported incidents of drivers struggling to find gas stations, repair shops and rest facilities. Feasible sites for the establishment of trucks stops along the Walvis Bay corridors have been completed. To date, limited progress has been made in preparing projects for bankability. Delays are partly due to refusal by land authorities to avail land for truck stop development

c) Border Posts

Table 13 here-under shows the inland borders through which cross-border traffic moves from the Port of Walvis Bay to the DRC.

Table 13: Border Posts along the Walvis Bay – Ndola – Lubumbashi Corridor

Border Post	Countries Joined	OSBP Candidate
Katimo Mulilo/Sesheke	Namibia/Zambia	X
Livingstone	Zimbabwe/Zambia	X
Kasumbalesa	Zambia/DRC	✓

Source: Table created for study

Kasumbalesa, an OSBP between Zambia and the DRC, as regarded as one of the busiest inland borders in Africa. Five major seaports dovetail at this border namely; the ports of Durban, Dar es Salaam, Beira, Walvis Bay and Mombassa. Trucks waiting in long queues (kilometres) to enter the border precinct, carrying a wide variety of commodities, are a daily occurrence at this border. Some of the infrastructure challenges experienced at the border post includes the poor condition of the road network between Chililapombwe, the border town and the border post (around 20 kilometres) and the stretch of road from the border post to Whisky (around 15 kilometres). Other challenges include the limited pre- clearance of goods. https://www.nepad.org/news/towards-effortlessly-moving-people-and-goods-across-borders).

Infrastructure challenges at the Kasumbelesa border post require immediate attention and emphasises the importance of role-players in both countries (Zambia and DRC) adopting a harmonised approach and working jointly in coming up with concrete solutions to address infrastructure challenges. Both countries, with support from the SADC and COMESA RECs need to agree on short term solutions, such as opening the border post for 24 hours on both sides. The benefits associated with OSBPs will only materialise once infrastructure inefficiencies have been attended to.

2.2.4.3 Traffic Volumes along the Walvis Bay – Ndola – Lubumbashi Corridor

The WBNLDC provides the shortest route between the Namibian ports of Lüderitz and Walvis Bay and the vital transport hubs of Livingstone, Lusaka and Ndola in Zambia, Lubumbashi (southern DRC) and Zimbabwe.

Driven by increased economic activity in the Zambian and the DRC markets, cross-border cargo volumes from the port of Walvis Bay in Namibia along the Zimbabwe, Zambia and the Democratic Republic of Congo (DRC) has been growing at a fast pace during 2018 with an estimated 590, 000 tons of cargo transported over this corridor in October 2018. According to the Southern Times Africa, traffic volumes over the WBNLDC is expected to increase by 36% in the immediate future due to a surge in the demand for minerals (e.g. copper) in Zambia and the DRC. (https://southerntimesafrica.com/site/news/walvis-bay-ndola-lubumbashi-corridor-gaining-traction).

2.2.4.4 Management of the Corridor

The establishment of the Walvis Bay – Ndola – Lubumbashi Cluster Committee was initiated by the Namibian and Zambian governments in 2005 to promote trade and transport facilitation for land-locked MS; inter alia through harmonising cross-border rules and standards. Meetings are conducted bi-annually and provides a platform for public and private sector role-players to interrogate impediments and finding solutions to constraints.

A recent development is noted in the establishment of the Walvis Bay - Ndola - Lubumbashi Corridor Management Committee, in partnership with the private sector. Public and private sector representatives from Namibia, Zambia and the DRC form part of this committee that seeks to address corridor inefficiencies that impede the seamless movement of traffic along the WBNLDC. In the absence of a permanent Secretariat, the Walvis Bay Corridor Group acts as interim Secretariat of the Walvis Bay - Ndola- Lubumbashi Development Corridor.

2.2.4.5 Corridor Achievements and Constraints

Corridor successes, include, but are not limited to the following accomplishments:

- Steady increase in the transportation of cross-border traffic along the WBNLDC in recent years;
- Massive infrastructure expansion projects at the port of Walvis Bay increased capacity in the port and made it possible for international shipping lines to make Walvis Bay their first port of call;
- Walvis Bay port is ideally located to accelerate the growth of Namibia and the SADC region by providing a gateway to the region; and
- A strong institutional framework exists. The Walvis Bay-Ndola-Lubumbashi Corridor Management Committee provides a platform for public and private sector role-players to collectively find solutions to corridor constraints, while the WBCG acts as the Interim Secretariat for the WBNLDC.

Examples of constraints include:

- Little progress achieved in harmonising customs duty, transit and normal transport fees;
- Lengthy delays are still experienced at border posts (e.g. Kasumbalesa) along the WBNLDC that significantly increase the cost of doing business along this corridor; and
- The absence of formal truck-stop facilities along the 2 500 kilometer stretch of road pose a safety threat to drivers, vehicles and cargo.

2.3 Operational Constraints Facing Cross-Border Road Transport Operators

The previous section alluded to several hard and soft infrastructure constraints facing cross-border operations in the SADC. Further to infrastructure constraints, the efficiency of cross-border road transport operations in the SADC is undermined by operational issues that cause delays and result in additional transportation costs for operators.

2.3.1 Constraints facing Passenger Operations

2.3.1.1 Adherence to Bus timetables

Cross-border bus operators conduct business according to timetables. When applying for permits, bus operators state the points along the corridor where they will stop. The number of stops is considered when regulatory authorities in the respective MS determine what time a bus should arrive at its final stop in the destination country. Late arrival results in penalties for non-compliance.

A complaint frequently raised by cross-border bus operators is that clearance processes at border posts is very slow and that excessive time delays at borders often result in the late arrival of cross-border buses in the destination country. This problem is exacerbated at the Beitbridge border post. The status quo calls for intervention by relevant role-players to intervene and adopt interim measures (e.g. allow grace period for late arrival) until border post delays are addressed.

2.3.1.2 Delay of Buses at Beitbridge Border due to Immigration Issues

Due to a shortage of DHA (immigration) resources working at the South African side of the Beitbridge border, it can take up to one hour to clear 10 people. Fully loaded bus carries 67 passengers, implying that cross-border buses can be stationed at this border for approximately seven hours to clear all passengers.

The Beitbridge border is prioritised as a OSBP and will convert into a fully functional 24-hour border post in future. To clear travellers all day round (24 hours) immigration border official will have to work in 3 shifts, implying that additional resources will have to be assigned to this strategic border post. The human resource problem is aggravated by the fact that the ICT system of the DHA is often off-line (for around 1 to 2 hours) when border officials change shifts. Furthermore, DHA officials do not regularly attend Joint Route Management Committee (JRMC) meetings to discuss and finding solutions to border post problems. During a JRMC meeting hosted in April 2019 in Johannesburg, South Africa the following actions were proposed by attendees (corridor stakeholders from South Africa and Zimbabwe) as a way forward:

- Cross-border passengers should be pre-cleared at dedicated international (cross-border) departure points in Johannesburg (e.g. Park Station) to speed up clearance processes at the Beitbridge border; and
- A staggered approach should be adopted towards the arrival of cross-border buses at the Beitbridge border. However, since cross-border buses operate according to fixed timetables, regulatory authorities in both MS need to change the arrival time of buses at destination points if this proposal is approved by corridor decision-makers.

An inter-border committee task team was established and meet monthly to discuss and resolve border post constraints. It is imperative that existing border post challenges (e.g. lack of Immigration officials at the South African side of the border) be escalated to the inter-border committee for resolution. The Border Management Agency (BMA) is the last resort if the inter-border committee fail to resolve immigration challenges at the Beitbridge border.

2.3.1.3 Bus Robberies along the N1 highway in South Africa

The robbery of cross-border buses takes place from time to time along the N1 highway in South Africa. This is aggravated by the fact that buses sometimes stop along the highway for "informal" activities, which lead to safety and security concerns for passengers.

To curb this problem, the South African Policy Service (SAPS) has resuscitated law enforcement visibility over all highways (national roads) in South Africa, In Limpopo, at least 6 vehicles are deployed along major roads daily. Flying squads are also deployed to "hot-spot areas (areas with a high accident rate).

2.3.1.4 Issuing of Spot fines for Tour Operators

Reported incident exist of South African tour operators receiving spot fines in Zimbabwe without any reason(s) given for the penalty. In some instances, penalties are issued to South African vehicles (buses) in Zimbabwe for not having reflective stickers attached to the vehicle. This requirement is not incorporated in South African law, and points to the need for harmonising regulatory requirements between member countries (South Africa and Zimbabwe in this instance).

2.3.1.5 Conveyance of Undocumented Immigrants by Cross-border Operators

Reported incidents exist of people travelling across national borders without the required documents (passports). The transportation of undocumented immigrants (of which many are children) escalate during school holidays.

It is believed that a professional syndicate(s) that specialise in human trafficking convey undocumented immigrants and that law enforcement officials of SADC MS are involved. The governments of SADC countries must cover the cost associated with the deportation of undocumented immigrants.

2.3.1.6 Lack of Detailed Route Descriptions on Cross-Border Passenger Permits

SADC countries are guided by domestic (national) legislation when decisions are made regarding the issuing of permits for the conveyance of passengers across national borders. Although a few countries in the region issue electronic permits, these permits do not display detailed route descriptions.

An exception is found in South Africa, where all cross-border bus and taxi permits issued by the C-BRTA stipulate the pick- up points (in the country of origin) and drop-off points (in the destination country). Since ranking facilities are managed by local metros (municipalities), the C-BRTA liaises closely with relevant metros when identifying suitable pick-up points in South Africa. In most cases, formal ranking facilities are assigned.

Cross-border taxi permits issued by Mozambique also specific pick-up and drop off points in Johannesburg (China point and Hotel Oribi). However, these informal locations do not have suitable ranking facilities, neither has the City of Johannesburg granted permission to use these facilities for the transfer of cross-border passengers.

The lack of a harmonised approach towards stipulating detailed route descriptions on all cross-border passenger permits issued by SADC countries creates an unlevel playing field whereby some cross-border operators can capture a greater portion of the market since they are not bounded to specified departure and drop-off points.

2.3.1.7 Concurrence of Permits

All applications to conduct bus services between Zimbabwe and South Africa must be referred to regulatory authorities in both countries, as well as local metros (municipalities) that manages ranking facilities, for approval. Regulatory authorities must wait for response from local municipalities before they can proceed with the issuing of cross-border permits. This practice often results in delays in the issuing of cross-border permits.

In South Africa, new applications for operating cross-border bus services should be gazetted for public comment. In Zimbabwe new legislation has been adopted that does not enforce this stipulation. The status quo creates an unlevel playing field whereby different rules apply to South African and foreign (e.g. Zimbabwean) cross-border bus operators.

Although most cross-border buses are in possession of a valid (legal) cross-border permit, the concurrence process is not always honoured. Failure to concur makes it difficult for law enforcement officers to perform their duties.

2.3.1.8 Unharmonised Regulatory Requirements and Differences in the Permit Issuing Process

Regulatory requirements pertaining to rules, standards and procedures that must be followed by cross-border road passenger operators in conducting cross-border operations are not harmonised across the SADC. This trend is noted in the following examples:

- Reflective stickers should be attached to the front and back of cross-border vehicles in Zimbabwe, whereas this requirement does not apply in other SADC MS;
- A two-hour graze period is allowed for the late arrived of foreign cross-border buses in Zimbabwe, whereas this allocation does not apply in South Africa; and
- Different third-party motor vehicle insurance schemes are used by SADC MS.

Furthermore, differences in permit requirements are noted in:

- Not all countries (e.g. Zimbabwe) in the SADC issue temporary permits;
- In Zimbabwe, cross-border permits are only issued to operators if they are the owners of the vehicle, whereas this is not the case in South Africa;
- Cross-border permits are still sometimes issued without concurrence from other parties (e.g. local metros); and
- In Zimbabwe penalties are imposed on the drivers of cross-border vehicles if windscreens are shattered. The case is somewhat different in South Africa where penalties are only imposed when windscreens are damaged to such an extent that is imposes a safety threat to the driver and passengers (e.g. poor visibility).

In light on on-going development towards establishing a Tripartite Free Trade Area it is unlikely that existing bilateral agreements between SADC MS will be revised. The Tripartite is actively pursuing the adoption and implementation of harmonised road transport regulations for Tripartite countries that will replace bilateral agreements when they enter into force.

2.3.1.9 Issuance of Organised Party Permits

Organised party permits are permits issued by regulatory authorities in SADC MS for special and / or unforeseen events (e.g. funerals and weddings) that take place outside their countries and which requires the transportation of people in public transport vehicles (e.g. minibus taxis). Regulatory authorities issue organised party permits on condition that the applicant provides proof of the special event taking place (e.g. death certificate for funerals and wedding invitation for weddings). Furthermore, the applicant must submit a list with the names of people that will attend the once-off event, including their biographical details (passport numbers and contact numbers).

If supporting documents look doubtful, the regulator should verify the authenticity of documents. Failure to do so, will result in documents not being verified. Applicants of organised party permits must return expired permit(s) and passenger lists after the special event has taken place.

Cross-border taxi operators have voiced their concern at national and regional platforms that organised party permits are often not limited to the special event, but also used to convey passengers for reward over highly trafficked cross-border routes, thereby taking away business from existing operators. This matter undermines the integrity of the permit issuing process in MS and calls for improvements to existing permit issuing system(s) to better control the way organised party permits are issued.

2.3.1.10 Return of Expired Permits and Passenger Lists

According to section 28 of the Cross-Border Road Transport Act, No. 4 of 1998, as amended, cross-border operators must return completed passenger lists and expired permits to the C-BRTA. Failure to do so result in penalties and may lead to refusal by the Regulatory Committee to re-issue permits to non-compliant operators.

The return of passenger lists and expired permits creates dissatisfaction amongst South African bus and taxi operators who feel that the administrative burden (e.g. time and costs) associated with this action should be eliminated. In the absence of cross-border legislation in other SADC countries, foreign operators are not compelled to return expired permits and passenger lists be returned to regulatory authorities.

The C-BRTA often receives requests from South African cross-border passenger operators to level the playing field through relieving them from the burden of returning expired permits and passenger lists to the Agency. One initiative (project) currently pursued by the C-BRTA is the re-engineering of the Agency’s permit issuing processes to move towards the on-line application of cross-border road transport permits Once the on-line permit application system has been operationalised, cross-border operators will be allowed to submit all supporting documents on-line and will not have to deliver supporting documents to the Agency’s head-quarters in Menlyn, South Africa.

2.3.1.11 Inadequate Cross-Border Ranking Facilities

The responsibility for the provision and maintenance of ranking facilities in most SADC MS vests with local government. Insufficient funds for the construction of new facilities and maintenance of existing ones, coupled with a spike in the demand for local and cross-border public passenger travel, has resulted in a situation whereby the demand for ranking facilities exceeds the supply of such facilities.

The absence of dedicated cross-border ranking facilities in urban areas of South Africa, and SADC MS has created a situation whereby public transport ranking facilities and holding areas are used collectively by local and cross-border road transport operators and commuters. This practice does not only aggravate congestion, but frequently results in the late departure of cross-border taxis and buses.

A new development includes the approval of plans to construct a premier, high quality one-stop long distance cross-border ranking facilities for cross-border buses and taxis in Johannesburg, South Africa. The 55 000 square metre complex which is to be named the Johannesburg International Transport Interchange (JITI) is situated between Harrison and Simmonds streets in downtown Johannesburg. The city of Johannesburg is playing a leading role in the establishment of the JITI and is working jointly with other players in the transport industry to provide quality services to operators and commuters. (C-BRTA. 2018: 2).

Zimbabwe currently ranks the top destination in terms of cross-border passenger movements for South African citizens. Following complaints from South African cross-border travellers, a team of C-BRTA officials visited various ranking facilities in Zimbabwe during 2017 to determine the status of such facilities. The observation exercise revealed the following findings:

- Most facilities do not support the operational requirements for international travel as noted in the wide-spread absence of dedicated security and weighing facilities and refreshment amenities for commuters;
- Most of the facilities face safety and security constraints. The absence of fencing and too few security officers at ranking facilities open opportunities for criminal activities to take place; and
- Loading spaces allocated to cross-border vehicles is not enough. The loading of personal effects often take place outside ranking facilities, with the resultant late departure of cross-border vehicles.

Discussions with selected law enforcement officials in SADC countries point to the absence of a coordinated approach to the regulation of cross-border public passenger departure points. This limitation has led to the establishment of various informal ranking facilities in urban areas and near commercial border posts. Tempelhof is an example of a taxi rank, located next to the N1 highway just before the Beitbridge border post. The loading and off-loading of passengers near this busy inland border posts further obstructs the flow of traffic between South Africa and Zimbabwe.

2.3.1.12 Regulation of Market Access

Regulatory instruments (e.g. bilateral agreements) between SADC MS stipulate the number of permits that can be issued to cross-border public bus and taxi operators over specified cross-border routes. Several cross-border routes in South Africa, especially the South Africa

– Zimbabwe and South Africa – Mozambique routes are highly trafficked routes, characterised by severe traffic congestion. Permit applications of new entrants to conduct business over these routes is often denied by the Regulatory Committee of the C-BRTA since these highly trafficked routes operate to full (or almost full) capacity.

The status quo creates unhappiness amongst cross-border bus and taxi operators who regularly voice their concerns at cross-border bus and taxi forums, hosted by the C-BRTA, that market access restrictions reduce their profitability. Furthermore, the existence of many operators who conduct cross-border transport illegally without valid cross-border permits, reduce the size of the market of "legal" cross-border road passenger operators.

2.3.1.13 Third-Party Insurance

South African cross-border road transport (and road freight) operators often find themselves in a peculiar position when they are involved in road accidents in countries using yellow card system such as Zimbabwe. Although passenger liability is compulsory, and even though operators must provide proof of passenger liability before permits are issued, passenger liability is only as good as the paper it is written on. In practice, operators must in most cases carry all expenses associated with road accidents. Passenger liability is the last resort and only applies once proof is given that all other avenues have been exhausted.

Zimbabwe does not have a road accident fund like South Africa that provides protection to foreign travellers in the country. According to national legislation, the maximum amount that can be claimed from foreigners who were injured in road accidents in Zimbabwe is R5 000. To make matters worse, Zimbabwe does not recognise South African issued insurance, even though the bilateral agreement between South Africa and Zimbabwe permit operators to take out insurance in their country of origin.

Although insurance can be purchased at Zimbabwean borders (at as cost of $ 120), this cover provides almost no protection to South African operators and may force them to close their business after they have settled all claims associated with road accidents.

Over the years South Africa has repeatedly requested Zimbabwe to accept South African issued insurance. This matter remains unresolved. An exception to the rule is found in Zambia where South African operators are covered for accidents that occurred on Zambian roads.

2.3.1.14 Exploitation of Foreign Operators by Law Enforcement Officials

Bribery and corruption pose a major cost to cross-border road passenger transport operators. Long waiting times along regional road transport corridors, especially at border posts, create a perfect opportunity for officials to elicit bribes to speed up processes. Corruption does not only compromise road safety but also national security and is a threat to legitimate cross-border trade.

Reported incidents exist of South African cross-border operators being exploited by border officials in Botswana, Zimbabwe and Mozambique. All foreign cross-border vehicles (including South African vehicles) must purchase the Botswana Annual Transport Permit (BA) upon arrival at Botswana borders irrespective of the fact that they are already in possession of a valid cross-border permit. This permit is commonly regarded as a form of a RUC in Botswana and is issued each time cross-border vehicles enter Botswana. Operators that refuse to acquire the BA are denied entry into the country.

Similar situations are experienced at Mozambique and Zimbabwe border posts where additional RUC are imposed on cross-border passenger and freight transport vehicles upon arrival at border posts. Since border officials do not issue receipts to drivers to account for the money spend, these payments are regarded as informal payments. Refusal to pay additional RUC results in the confiscation of cross-border permits and impounding of cross-border vehicles.

Further to the above, cross-border operators also face excessive costs when conducting road transport operations in the DRC. Additional RUC's of around $2000 are imposed upon foreign road transport vehicles that enter the DRC via the Kasumbalesa border post. (Curtis: 2014). These costs increase the cost of doing business in Africa and serve as impediment to intra-Africa trade.

2.3.2 Constraints facing Freight Operations

2.3.2.1 Xenophobic Attacks on Foreign Operators / Driver Conflict

The road freight sector experienced xenophobic attacks in 2019. The frustration experienced by many South African truck drivers is that many local (South African) companies employ foreign citizens to drive cross-border vehicles. Currently around 60% of all cross-border drivers are foreign citizens. In response, South African truck drivers have made it clear that they are not happy with foreign nationals being employed in high numbers over locals in the trucking industry.

Since foreign drivers are not represented by Unions, transport companies are inclined to pay foreign drivers less, while also imposing strict conditions of service (e.g. longer working hours) on them. Irrespective of the fact that national law prescribes that a quota system be followed, South African companies often deviate from the stipulations.

The employment of foreign drivers aggravates xenophobic attacks that is particularly severe on the N3 highway, linking KwaZulu Natal and Gauteng. According to Mr. Gavin Kelly, Chief Executive (CE) of the Road Freight Association (RFA), 213 deaths were recorded following incidents of attacks on trucks nationally since March 2018. However, he could not confirm whether all deaths were linked to the unhappiness over the alleged high employment of foreigners, or if it was due to service delivery protests or pure criminality. (https://city-press.news24.com/News/foreign-truck-drivers-warn-of-retaliation-on-sa-drivers-if-attacks-continue-20190618)

Engagements with South African companies who engage in cross-border operations revealed another perspective, namely that South Africans citizens are often not willing to travel to many African countries (e.g. Mozambique and the DRC). Reported incidents exist where South African truck drivers abandoned trucks in some MS (e.g. Mozambique). Furthermore, local citizens are inclined to disobey labour laws.

A request of cross-border road freight operators is that government should acknowledge the fact that the cross-border industry is unique industry that covers various African countries and that special consideration should be given to the uniqueness of the industry when national legislation is drafted. A request was made by a selected few South African companies who engage in cross-border operations, that the regulations dealing with the quota system (e.g. percentage split foreign vs. national drivers) be amended. To solve this problem, the C-BRTA is engaging with other sector role-players (e.g. Department of Home Affairs, Department of Labour) to seek a long-lasting resolution to this matter.

2.3.2.2 Variation in the Issuance of Cross-Border Permits and the High Cost of Freight Permits

Cross-border road transport permits are issued in the country of operator registration (except in the case of cabotage) or, in some cases, at the border of the destination country (DRC). This variation is a matter of concern, because there is no harmonisation of operating conditions, implying that road transport operators are subjected to different conditions in different SADC countries. As a result, the price of cross-border permits varies between SADC MS.

In addition to the above, the cost of cross-border road freight permits is high and is cited as a key contributing factor to the high cost of doing business in Africa. In most instances the cost to obtain cross-border road freight permits is much higher than the cost of a cross-border road passenger permit. This does not only go against the principles of trade facilitation, but also causes dissatisfaction amongst cross-border freight operators, who believe that the playing field is not level.

2.3.2.3 Return of Permits and Consignment Notes

According to the stipulation of regulatory frameworks, cross-border road freight operators must return consignment notes and expired permits to regulatory authorities in their countries. Failure to do so results in penalties.

Cross-border road freight operators are of the view that they should be relieved from the administrative burden of returning expired permits and consignment notes as it does not add value to them. Furthermore, complaining operators believe that the categories listed on consignment note is too general and not aligned to the customs (SARS) codes. As a result, returned consignment notes are not completed in full. This practice undermines the integrity of information extracted from consignment notes.

2.3.2.4 Different Third-Party Liability Insurance Schemes

MS in SADC use different third-party liability insurance schemes (e.g. cash payments, fuel levy and COMESA yellow card). Since different systems are being used, cross-border operators are required to purchase additional cover when transiting countries who use different schemes. This constraint leads to unnecessary costs being imposed on cross-border operators.

Work is currently underway at Tripartite level to harmonise third-party liability insurance systems. Since SADC forms part of the Tripartite Alliance, all signatory states to the Tripartite agreement will be bounded to convert to the Tripartite harmonised third-party liability insurance system once it became operational.

2.3.2.5 Weighbridges

Weighbridges constitute a fixed delay point along regional road transport corridors and result in long time delays for cross-border operators. Time delays at weighbridge stations are caused by various factors, which include:

- Insufficient space to load and offload vehicles;
- Limited resources allocated to conduct inspections;
- Poorly maintained and uncalibrated weighbridge scales that materialise in different readings at different weighbridges and penalties for overloaded vehicles;

- Limited payment options for overloaded vehicles. Most weighbridge stations accept cash only; and
- Lack of mutual recognition of weighbridge certificate amongst SADC MS.

The absence of a mutually recognised weighbridge certificate for the SADC (which is partly due to different weighbridge calibration) results in inconsistency in vehicle mass when the vehicle moves from one weighbridge to the other. Operators are penalised for overloading and this increase the cost of doing business. Another impediment lies in the limited sharing weighbridge information (intelligence) amongst corridor role-players (e.g. law enforcement officials) to guide decision-making activities.

2.3.2.6 Roadblocks and Corrupt Practices

Many informal roadblocks are found along transport corridors in the SADC. At these informal stop points, the drivers are subjected to harassment, corruption and extortion. Corrupt activities do not only take place at traffic inspection points, but also at border posts and literally everywhere where enforcement and compliance are checked.

2.3.2.7 Adherence to National Customs Bonds

In the SADC transporters involved in transit operations must buy a customs bond at least equal to the duty payable on the cargo, for each border crossed. Typically, customs clearing and forwarding agents or insurance companies sell these bonds, which act as a guarantee or insurance should the cargo be diverted illegally to domestic use or any other customs transgressions be committed. However, having to buy a bond at each border adds to the cost and complexity of cross-border trade in the regional context

The SADC comprises of 6 land-locked countries. Due to their geographic location, countries in the interior must cross several inland borders on route to their destination. Imports to the DRC for example, arriving at the port of Durban, in South Africa must pass from South Africa through Zimbabwe (or sometimes Botswana) and Zambia before reaching the DRC. Passing through three or more countries thus requires acquiring three or more customs bonds. Since customs bonds vary from one MS to the next, the cost of acquiring bonds is significant. Furthermore, releasing bonds to the intended national authority takes time and can fluctuate from one day to a week, or even more, resulting in monies being tied up in the various national bonds.

2.3.2.8 Overloading of Vehicles

Overloading is a major concern in the SADC. Estimates reveal that the cost of overloading in the East and Southern African regions amount to approximately US$ 4 billion per annum. (Pearson, M & Chaitezvi, C. 2012: 23). This figure exceeds the amounts being spent on road rehabilitation and is partly to blame for the poor condition of various roads in the SADC.

Although the costs associated with vehicle overloading can be avoided through effective control measures, the challenge is to harmonise control measures. Currently different regulations on axle load limits, axle combinations, Gross Vehicle Mass (GVM) and vehicle dimensions apply between SADC MS. Unless this problem is addressed in an urgent fashion, it will negate the expected benefits from the huge amounts of resources and member countries and donors are investing into improved road infrastructure across the region.

A development currently unfolding in the Tripartite region is the movement towards the adoption and implementation of the Vehicle Load Management Strategy under the Tripartite Transport Transit Facilitation Programme (TTTFP). The harmonisation programme focuses on 11 key elements, which include vehicle overload control (key element 1) and vehicle dimensions (key element 4). The output of both elements is to implement:

- Harmonised vehicle regulations and standards pertaining to vehicle overload control and vehicle dimensions; and
- Uniform management and control systems that support weighbridge developments in the Tripartite region.

2.3.2.9 Completion of the Kazungula Bridge

Currently cross-border operators who wish to cross the Kazungula border post make use of a ferry to move goods across the Zambezi river. Since the ferry only moves a limited number of trucks per day, severe delays are experienced at this border post. To bring about improvement, the Kazungula border has been prioritised as an OSBP candidate. Construction activities are on-going at Kazungula. The completion of the Kazungula bridge project has been moved to 2020.

2.3.2.10 Inefficiencies at Strategic Border Posts

Constraints such as severe delays for road freight operators are experienced at key strategic border posts (e.g. Beitbridge and Kazumbalesa) in the region. Other impediments include:

- Un-harmonised border operating hours;
- Space limitations and poor signage within border posts;
- The existence of various “windows” at border posts, which disrupt the seamless flow of traffic through borders;
- Absence of dedicated fast lanes for pre-cleared vehicles at most strategic border posts;
- Inadequate parking for trucks; and
- Poor ICT systems integration; which result in the duplication of activities.

The above constraints culminate in inefficiencies and long journey and trip turnaround times and high cost of doing business for road freight operators.

2.4 Conclusion

This chapter highlighted infrastructure and operational constraints that road transport operators face when conducting business in the SADC region. Various infrastructure projects/programmes have been approved and are currently been implemented in the SADC to address some of the bottlenecks and constraints. Chapter 3 of this report provides more information with respect to progress achieved on the implementation of strategic road transport and border post programmes and projects in the region.

3. ACTIONS TAKEN AND PROGRESS MADE TOWARDS IMPROVING CROSS-BORDER ROAD TRANSPORT AND TRADE IN SADC

3.1 Introduction

SADC MS agreed to implement several road transport and border post projects with a view to address infrastructure inefficiencies and operational bottlenecks to enhance the overall development of the cross-border road transport sector. The implementation of several regional projects / programmes is envisaged to create integrated transport infrastructure / systems while also improving the regulatory environment through the harmonisation of regulatory instruments. Strategic regional projects are also earmarked to contribute towards the achievement of objectives of the SADC PTCM and the African Continental Free Trade Agreement (AfCFTA) which was officially launched at the 12th Extraordinary Summit of the African Union (AU) in Niamey, Niger on July 7, 2019.

The dream of establishing a single African market is underpinned by several Critical Success Factors (CSF) including the timeous delivery of strategic continental and regional infrastructure projects to enable the seamless movements of goods and services in a single market (AfCFTA) that will be the world's largest free trade area by number of countries once it's fully up and running. (https://www.weforum.org/agenda/2019/09/africa-just-launched-the-world-s-largest-free-trade-area/).

Infrastructure development in SADC is guided by the SADC Regional Infrastructure Development Master Plan (RIDMP), which was finalised in August 2012. The Master Plan outlines strategic projects in 6 priority sectors, namely: energy, transport, ICT, meteorology, water and tourism. According to the timelines, the master plan will be implemented over three five-year intervals - short term (2012-2017), medium term (2017-2022) and long term (2022-2027). The initial investment target for the short-term action plan was set at $64,15 billion, with the total proposed investment varying between $426 billion and $558 billion. (https://developingmarkets.com/sites/default/files/SADC_UK_2013.pdf)

Unfortunately, information on the implementation status of strategic infrastructure projects unfolding across in the African continent remains scarce and hard to obtain. The case is not different for the SADC - even though seven years have lapsed since the approval of the RIDMP, limited information exists on the project status of key road transport and border post projects.

Against this background, this Chapter provides a high-level overview of the status of strategic road transport and border post projects set out in the SADC RIDMP, looking at:

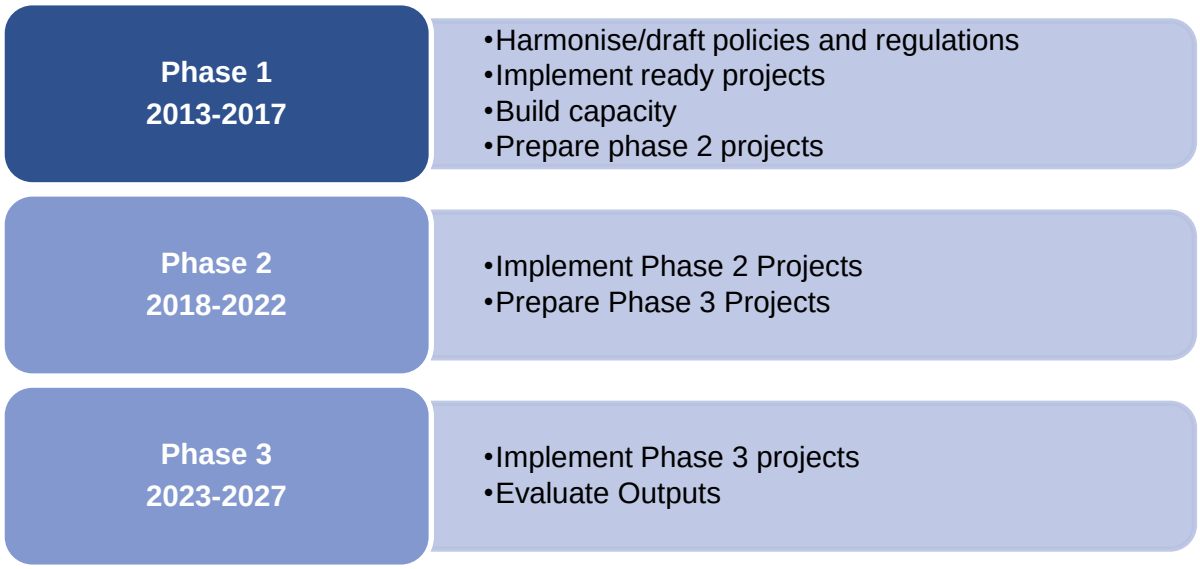
- An assessment of progress made towards implementing road transport and border post projects;
- New developments in the region (launch of SADC infrastructure web portal);
- Constraints that prevent the timeous delivery of prioritised infrastructure projects / programmes; and
- Envisioned impact of prioritised reforms.

3.2 Assessment of Prioritised Regional Transport Projects / Programmes

3.2.1 Transport Projects outlined in the SADC RIDMP

Figure 4 below shows the implementation intervals of prioritisted RIDMP infrastructure projects.

Figure 4: Project Implementation Intervals: RIDMP Infrastructure Projects



Source: SADC Regional Infrastructure Development Master Plan. Executive Summary. August 2012.

Phase 1 comprises of short-term infrastructure projects (both hard and soft infrastructure) and was scheduled for implementation between 2012 – 2017. The Short-Term Action Plan (STAP) sets out the short-term programmes of the SADC RIDMP.

Table 14 provides more information on STAP projects.

Table 14: Short-term Infrastructure Projects for the Transport Sector

Project	Benefiting MS	Project Phase / Status
South African ports: Durban port expansion	Regional	➢ Construction
Walvis Bay: Port expansion	Regional	➢ Detailed design completed; ➢ Feasibility study on-going.
Huambo Airport: Improvements	-	➢ Pre-feasibility studies completed.
Kazungula Bridge: Construction of a road bridge which can also handle trains in future	Botswana & Zambia	➢ Detailed design completed; ➢ MoU and project implementation arrangements being finalised; ➢ Construction activities nearing completion.
Beitbridge-Chirundu: Road upgrading	South Africa & Zimbabwe	➢ Feasibility Studies completed; ➢ On-going negotiations with potential financiers.
Beitbridge Border OSBP: Upgrading and expansion of infrastructure	South Africa & Zimbabwe	➢ Master Plans developed; ➢ Draft operator manual for Beitbridge OSBP developed and presented to key stakeholders; ➢ On-going consultation between Zimbabwe and South Africa.
Buitepos / Mamuno OSBP	Botswana & Namibia	➢ Feasibility studies completed; ➢ MoU signed by the governments of Botswana and Namibia.
National Railways of Zimbabwe revival	Zimbabwe	➢ Feasibility studies on-going.
Ressano Garcia / Lebombo OSBP: Infrastructure upgrades and redesign of processes	Mozambique & South Africa	➢ Construction of OSBP facilities completed; ➢ Signage of legal frameworks pending.
Lobito corridor roads: Rehabilitate the main feeder roads within the corridor	Angola	➢ Feasibility studies and some works on-going. ➢ Construction activities on-going along the Angola – Kinshasa corridor
Dar-es-Salaam: Chalinze toll road	Tanzania, Zambia, DRC & Malawi	➢ Feasibility studies completed in 2010; ➢ PPP viability study conducted; ➢ Information on current project status not available.
Nakonde / Tunduma OSBP	Tanzania, Zambia, DRC & Malawi	➢ Construction of OSBP facilities completed; ➢ Nakonde / Tunuma has been operationalised as an OSBP.
Makambako-Songea road rehabilitation	Tanzania, Zambia & Malawi	➢ The road section is under detailed design through World Bank financing funds.
Plumtree-Bulawayo-Gweru-Harare-Mutare road: Rehabilitation	Zimbabwe, Mozambique, Malawi, DRC & Botswana	➢ Minor works on-going.

Project	Benefiting MS	Project Phase / Status
Isaiah-Keza-Kigali-Msongati railway line	Tanzania, Rwanda, Burundi & DRC	➢ Feasibility study completed; ➢ Information on current project status not available.
Tanzania Railway Limited services: Revival	Tanzania, Rwanda, Burundi & DRC	➢ On-going.
Mtwara-Liganga-Muchuchuma-Songea-Mbamba railway	Tanzania, Zambia, Malawi & Mozambique	➢ Feasibility study completed; ➢ Information on current project status not available.
Manyoni-Tabora-Kigoma road: Rehabilitation	Tanzania, Rwanda, Burundi & DRC	➢ Detailed design and tender documents completed; ➢ Works on-going along some sections.
Kisarawe-Dar es Salaam Construction of ICD	Tanzania, Rwanda, Burundi, DRC, Malawi & Zambia	➢ Pre-feasibility study completed; ➢ Information on current project status not available.
Kolwezi-Dilolo road (Angola border, SADC route 20, 426 km): Rehabilitation	Angola & DRC	➢ Feasibility study completed; ➢ Information on current project status not available.
Kinshasa-Inkisi-Ngindinga-Mbanza Sosso road (Angola border, 120 km): Rehabilitation	Angola & DRC	➢ Feasibility study completed; ➢ Information on current project status not available.
Kisangani-Niania-Bunia-Beni-Kasindi (Urganda border, 845 km): Rehabilitation	DRC, Rwanda, Uganda, Tanzania & Kenya	➢ Feasibility study completed; ➢ Information on current project status not available.
Tshikapa-Angola border (117 km)	Angola & DRC	➢ Pre-feasibility study completed; ➢ Funding for full feasibility and detailed design pending.
Kolwezi-Dilolo railway: Rehabilitation	DRC, Zambia & Angola	➢ Pre-feasibility study completed; ➢ Funding for full feasibility and detailed design pending.
Kinshasa-Illebo railway link: Construction	DEC, Zambia & Zimbabwe South Africa, Botswana & Tanzania	➢ Pre-feasibility study completed; ➢ Information on current project status not available.

Project	Benefiting MS	Project Phase / Status
Ponta Technobanine, Mozambique: Heavy railway line and port	Mozambique, Botswana, Zimbabwe, South Africa & Swaziland	➢ Abridged executive summary completed in August 2010; ➢ Three countries have agreed to finance the pre-feasibility study at a cost of US$1.8 million, equally shared among them; ➢ Information on current project status not available.
Sena Line Railway: Rehabilitation and upgrade	Mozambique, Zambia & Zimbabwe	➢ Rehabilitation works completed; ➢ Sena railway line is operational.
Nacala: Line and new coal terminal	Mozambique & Malawi	➢ Detailed engineering studies completed; ➢ Nacala railway line under construction.
Nacala port modernisation and expansion	Mozambique	➢ On-going construction works.
Mbinga-Mbaba Bay: Road upgrade	Tanzania	➢ Feasibility study completed; ➢ Information on current project status not available.
Institutional projects: Road user charging systems, harmonisation of corridors, standardised commercialised road management assessment study & establish regional transport competition authority	All SADC MS	➢ On-going; ➢ Progress made towards harmonising transport rules and standards. The TTTFP will be implemented during 2021 / 22.
Institutional Initiatives: Continue the commercialisation of regional airports, ANS, withdrawal of government participation in national airlines, continue commercialisation, including land lording of ports	All SADC MS	➢ Information on current project status not available.

Source: Table compiled for study.

From Table 14 it is evident that several short-term projects are still in the planning / conceptual phases of the project lifecycle (project definition, pre-feasibility and feasibility). Although feasibility studies have been completed for some projects, construction activities have not yet commenced for most projects. Section 3.3 elaborates on the reasons for this tendency.

3.2.2 Launch of a SADC Infrastructure Web Portal

The unavailability of data on the status of regional infrastructure projects is partially to blame for the slow progress made towards implementing regional projects. To eliminate this gap, the SADC Secretariat has taken the lead in developing an infrastructure web portal that displays project information for strategic regional projects in all infrastructure sub-fields. This online platform is linked to the SADC website and was launched during the early months of 2020.

The infrastructure web portal display dashboards for all SADC infrastructure projects. Furthermore, it allows the filtering and visualisation of regional infrastructure projects by sector, countries, current stage and reference plan. Table 15 illustrates the breakdown per infrastructure sub-field

Table 15: Breakdown per Infrastructure Sub-Field

Infrastructure Sub-Field	Projects by Sector
Energy	23
ICT	18
Transport	40
Water	2
TOTAL	83

Source: https://www.sadc.int/information-services/sadc-infrastructure-dashboard/

In March 2020, the listing of projects by actual project stage looked as follows:

- Project definition: 10
- Pre-feasibility: 5
- Feasibility: 13
- Project Structuring: 6
- Transaction Support and Financial Close: 6
- Tendering: 4
- Construction: 11
- Operation: 18
- Data not available: 10

The above figures reveal that 28 projects are still in the planning / conceptual phases, while 11 projects are under construction and 18 projects are in operation. Data is not available for 10 projects.

Project profiles of infrastructure projects can be assessed at *https://www.sadc.int/information-services/sadc-infrastructure-dashboard/.* This website offers an interactive Geographic Information System (GPS) for infrastructure projects. The following steps are recommended to view relevant project information:

1) Click on charts to narrow the list of selected projects;
2) Alternatively, projects can be selected from the list at the bottom by clicking on the project rows and then clicking the filter link in the projects tab;
3) Use the download link above each chart and project list tab to export the charts and the list of selected projects

Table 16 summarises the project stage of projects for the transport sub-sector. Information was obtained from the interactive project dashboard in March 2020.

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Table 16: SADC Dashboard – Transport Projects

No	Project Name	Type	Sub-Sector	Location	Stage	Year	Data
1	Beira-Machipanda railway upgrade	Upgrade	Railway	Mozambique	Tendering	2019	35%
2	Colomue-Dedza OSBP	Upgrade	Border Post	Malawi, Mozambique	Tendering	2019	35%
3	Forbes-Machipanda OSBP	Upgrade	Border Post	Mozambique, Zimbabwe	Project Definition	2013	26%
4	Machipanda-Harare railway upgrade	Upgrade	Railway	Zimbabwe	Construction	2013	30%
5	Nacala railway line	Upgrade	Railway	Mozambique	Construction	2013	43%
6	Nyamapanda-Cuchimano OSBP	Upgrade	Border Post	Mozambique, Zimbabwe	Project definition	2013	26%
7	Sena railway line rehabilitation	Upgrade	Railway	Mozambique	Operation	2019	48%
8	N'djili airport expansion	Upgrade	Airport	DRC	Pre-feasibility	2013	35%
9	Banana port upgrade	Upgrade	Seaport	DRC	Data not available	2013	13%
10	Matadi port upgrade	Upgrade	Seaport	DRC	Data not available	2013	17 %
11	Huambo-Kuito road	Upgrade	Road	Angola	Operation	2019	22%
12	Kinshasa-Luanda road (Angola section)	Upgrade	Road	Angola	Construction	2013	13%
13	Kinshasa-Luanda road (DRC section)	Upgrade	Road	DRC	Data not available	2013	13%
14	Kuito-Luena road	Upgrade	Road	Angola	Data not available	2013	17%
15	Luena-Luau-Dilolo road	Upgrade	Road	Angola	Data not available	2013	17%
16	Brazzaville-Kinshasa road/rail bridge	Upgrade	Bridge	DRC	Project structuring	2018	65%
17	Beitbridge OSBP	Upgrade	Border Post	South Africa, Zimbabwe	Construction	2019	43%
18	Bulawayo-Gwanda road	Upgrade	Road	Zimbabwe	Project structuring	2017	43%
19	Chingola-Solwezi railway extention	Upgrade	Railway	Zambia	Feasibility	2017	43%
20	Gwanda-Beitbridge road	Udgrade	Road	Zimbabwe	Transaction support & financial close	2019	65%
21	Harare-Nyamapanda road project	Upgrade	Road	Zimbabwe	Feasibility	2019	52%
22	Joint Standards for Modern Road Corridor	Upgrade	Road	Several countries	Data not available	2013	9%

No	Project Name	Type	Sub-Sector	Location	Stage	Year	Data
	Design on the North-South Corridor						
23	Kamuzu International Airport turn -off to Mzimba turn off section of the M1 in Malawi	Upgrade	Road	Malawi	Feasibility	2018	70%
24	Kitwe-Chingola road	Upgrade	Road	Zambia	Construction	2019	35%
25	Martin's Drift OSBP	Upgrade	Border Post	Botswana, South Africa	Project definition	2013	26%
26	North South Corridor Rail Cooperative Master Plan	Study	Road	-	Project definition	2013	9%
27	Tete toll bridge	New	Bridge	Mozambique	Project definition	2013	35%
28	Goma-Kisangani road	New	Road	DRC	Project Structuring	2013	43%
29	Kalemie Port Upgrading	Upgrade	Inland port & Waterway	DRC	Feasibility	2018	39%
30	Beira new coal terminal development	Upgrade	Seaport	Mozambique	Pre-feasibility	2017	39%
31	Beira port dredging	Upgrade	Seaport	Mozambique	Operation	2019	39%
32	Durban port expansion	Upgrade	Seaport	South Africa	Construction	2013	35%
33	Luanda port expansion	Upgrade	Seaport	Angola	Project definition	2013	22%
34	Maputo port expansion	Upgrade	Seaport	Mozambique	Construction	2013	39%
35	Master Plan for regional port capacity and regional rail linkages in Southern Africa	Upgrade	Seaport	Several countries	Data not available	2013	9%
36	Nacala port container terminal expansion	Upgrade	Seaport	Mozambique	Construction	2013	26%
37	Nacala port new coal terminal	Upgrade	Seaport	Mozambique	Operation	2019	43%
38	Walvis Bay port new container terminal	Upgrade	Seaport	Namibia	Feasibility	2017	52%
39	TAH8: Lagos to Mombasa– missing road links in the DRC	Upgrade	Road	DRC	Data not available	2013	17%
40	Zobue-Mwanza OSBP	Upgrade	Border Post	Mozambique	Project definition	2013	26%

Source: https://www.sadc.int/information-services/sadc-infrastructure-dashboard/

The launch of an online data portal that outlines project dashboards for strategic SADC infrastructure projects represents a step in the right direction. Although project sheets (templates) have been designed for all infrastructure projects, many of them still lack essential information pertaining to project risk, project financing and project cost calculations. It is imperative that affected role-players intensify their efforts in continuously submitting relevant information that will serve as input data into updating project sheets. The availability of accurate project information poses several benefits. Firstly, adequate monitoring and evaluation of existing projects plays an important part in attracting future investments, while also ensuring accountability and transparency for investors and citizens Secondly, monitoring and evaluation throughout the project life-cycle can also help reduce wastage and eliminate the scope for corruption where vast sums of money are at play.

Further to the shortage of real-time information (data), several other impediments delay the timeous implementation of prioritised SADC infrastructure projects / programmes. Section 3.3. discusses key constraints in greater detail.

3.3 Constraints undermining the Timeous Delivery of Prioritised Projects

The previous section revealed that limited progress has been made towards implementing strategic regional infrastructure projects. This is due to various constraints, which include, but are not limited to the following:

3.3.1 Poor Level of Implementation

Although several transport agreements have been signed and ratified at Continental, REC and MS level, the timeous implementation of these agreements remain a problem. This is evident in the poor domestication of such agreements at national (MS) level.

The case is no different in the SADC, where no MS have fully implemented all the stipulations of the SADC PTCM, even though SADC signed the Protocol on 24 August 1996. Various reasons are cited for the poor implementation of regional projects, notably a lack of understanding of the collective benefits of such projects, funding constraints and institutional shortcomings.

3.3.2 Non-Alignment of National Legislative Frameworks to Regional and Continental Initiatives

SADC MS domestic policies, laws and regulations are not aligned. Ms should ensure that they review domestic policies and legislations once regional agreements have been signed to align domestic laws/ regulations to regional initiatives. Evidence reveals that this requirement is seldom met by MS, resulting in the inability to implement regional commitments.

3.3.3 Inadequate Mandates and Under-Resourced Regional Bodies

Regional bodies in the SADC lack the authority, legal framework and resources to provide efficient leadership in project design, while also acting as promoters and sponsors of projects. These constraints result in poor project planning and preparation and inadequate coordination and cooperation with relevant role-players in the region.

3.3.4 Multiple Memberships of MS to Different RECs

Another impediment to the timeous implementation of transport projects is the co-membership of SADC countries to various RECs. A practical example of a country which is caught up in this predicament is Zambia, who is a member of both SADC and COMESA. Under the SADC Trade Protocol, Zambia agreed to dismantle tariffs for SADC countries to zero. Consequently, since South Africa is a member of SADC, Zambia had to remove tariffs for South African goods to zero.

However, since Zambia is a member of the COMESA as well, it had also agreed to a common external tariff regime for countries that are not members of the COMESA. Since South Africa is not a member of the COMESA, the prior arrangement did not apply to South Africa. This translated into the fact that Zambia agreed to reduce tariffs for South Africa under SADC conditions, but to maintain tariffs for South Africa under the COMESA provisions. This scenario leaves Zambia in a difficult predicament. (Mapua, J & Muyengwa-Mapuva, L. 2012)

The multiple membership features are counter-productive and often results in the inability of African countries to implement certain initiatives (e.g. Yellow Card System) system since they have already adopted transit instruments with other RECs.

3.3.5 Funding Restrictions

The complexity of transport projects makes them costly and time-consuming to prepare and implement. Experience has shown that, to scale up the implementation of infrastructure projects, MS should develop a pipeline of bankable projects. Projects will only be funded if they are financially viable and sustainable. Unfortunately, limited financial resources at MS level are cited as a reason for the poor implementation status of transport projects / programmes. This impediment underpins the need for political leaders in MS to adopt alternative funding sources for large-scale infrastructure projects.

3.3.6 Skills Shortage

In addition to funding constraints, there is often lack technical expertise to package projects so that they can obtain private sector funding. This tendency is partly to blame for the slow pace of implementing regional commitments / programmes. It also illustrates the need to secure adequate funding to upskill and improve resource mobilisation at MS level to fast-track the implementation of prioritised infrastructure projects.

3.3.7 Absence of Regional Parliaments

Eight RECs are recognised by the AU. However, not all of them have a regional legislative assembly (Parliament) that holds MS accountable for the implementation of continental and regional decisions. RECs with a functioning independent legislative authority, like the EAC has witnessed a high implementation rate of trade and transport reforms in recent years. Given its independent character, the EAC Parliament can enforce the implementation of regional decisions and impose sanctions upon defaulting MS.

The SADC has experienced less success in terms of the implementation of regional reforms. To date no MS have implemented all the provisions of the SADC Protocol on Transport, Communication and Meteorology. Furthermore, SADC countries are at different stages of implementing transport agreements. This is partially due to the absence of a regional legislature (Parliament) to oversee project implementation and enforce MS to implement regional approved transport projects/programmes. This gap underlines the importance of establishing an autonomous institution at regional (SADC) level to influence MS to implement strategic regional (trans-boundary) infrastructure projects.

3.4 Envisioned Impact of Prioritised Reforms

The implementation of strategic regional infrastructure projects is expected to advance the regional integration agenda that promotes the unimpeded movement of cross-border road and passenger transport movements across national borders. Some benefits associated with the implementation of strategic regional transport projects include:

- Reduction in transportation costs;
- Improvement in transport turnaround times;
- Improved border post efficiency;
- Reduction in time spent at border posts;
- Reduction in total travel time and costs;
- Reduction in the cost of doing business; and
- Increased economic growth and development in the SADC.

3.5 Conclusion

Various strategic road transport and border post projects have been selected at regional (SADC) level to eliminate, or at least minimise the transport gap that prevents the region to function as an integrated whole. Although regional projects and programmes are agreed and signed off at regional (REC) level, it is the responsibility of MS to ensure that these programmes are implemented.

Generally, SADC MS has a poor track record regarding the implementation of regional infrastructure projects. This is mainly due to the existence of various transport inefficiencies, which include the unavailability of project data, funding issues and a shortage of technical resources. Most regional transport infrastructure projects are large scale and long-term in nature and involves multiple stakeholders who can influence the timely implementation of regional stakeholders. It is important that trust is built between all role-players and that momentum is maintained through-out the project lifecycle, even when new political heads of state come into power.

The successful implementation of regional project / programmes requires ardent monitoring and coordination between MS. This should be coupled with effective corridor performance monitoring to ensure infrastructure projects remain relevant and respond to often changing corridor dynamics. The launch of a SADC infrastructure web portal that enables the filtering and visualisation of SADC infrastructure projects by sector, latest stage and project risk attempt to address the gap surrounding the scarcity of data. It also demonstrates commitment from public sector bodies to move infrastructure projects beyond planning to implementation / post-implementation phases.

4. STATUS OF CORRIDOR PERFORMANCE MONITORING IN THE SADC AND RECOMMENDED INTERVENTIONS

4.1 Introduction

Given the multitude of infrastructure challenges and operational constraints facing most countries in the region (land-locked countries in particular), the importance of measuring corridor performance becomes apparent. Corridor issues can only be effectively addressed if they are monitored. In this regard, real-time data can assist decision-makers in pinpointing those components of the regional corridors that are not working well so that infrastructure, regulatory or institutional reform interventions can be better targeted.

The performance of a transport corridor can be evaluated from two main perspectives, namely:

- An *infrastructure perspective*, which considers the physical capacity of links and nodes in a corridor, as well as their use; and
- *A service perspective*, which examines the quality of the services provided for goods moving on various transport routes.

Corridor data is a key requirement for measuring corridor performance, especially in the SADC where a plethora of problems hinder the seamless flow of cross-border traffic movements. Individually and together, the hard and soft infrastructure inefficiencies (e.g. missing links along road transport corridors, lack of ICT integration and border delays) contribute to high transport costs that are higher than in other parts of the world.

Progress towards on-line monitoring of corridor performance is noted in the EAC that has taken the lead in developing and launching on-line electronic platforms (transport observatories) along the Central and Northern transport corridors, from the point of entry to destination on a weekly, monthly, quarterly and annual basis. Although various initiatives are underway in the SADC to improve corridor performance monitoring, the region has not yet implemented an online data portal that measures corridor performance and releases real-time data on corridor performance on a continuous basis.

Funding and human resources constraints are the key factors that prevent CMIs in the region from monitoring corridor performance on-line. The case is no different for the TKCMI, who approached the C-BRTA to assist in developing CPIs and implementing an on-line electronic platform for the TKC. Currently the Agency is working jointly with the TKCMI in developing CPIs that will be piloted along a section of the TKC during the 2019 /20 FY, where-after it will be roll-out along the entire corridor. Section 4.3.2.1 provides more information on the progress made towards implementing this initiative.

This Chapter focuses on:

- Approaches to Corridor Performance Monitoring;
- Corridor Categories and Corridor Performance Indicators (CPIs) that are used for monitoring the performance of road transport corridors in the SADC;
- Status of Corridor Performance Monitoring in the SADC; and
- On-going performance monitoring activities in the Tripartite.

4.2 Corridor Performance Indicators

4.2.1 Current Approaches to Corridor Performance Monitoring

Corridor performance monitoring can take one of two forms, namely:

- Corridor-wide monitoring; or
- Detailed monitoring at specific locations or chokepoints (normally at border posts).

Corridor wide monitoring involves data collection and surveys covering the length of a corridor, while bottlenecks' monitoring on the other hand, comprises data collected at specific locations (e.g. border crossings) that constraint transit movement. Corridor-wide monitoring in Africa has been carried out on the Northern Corridor in East Africa, as well as along corridors in West and Central Africa, while detailed micro-level monitoring has been carried out and implemented at the Beitbridge and Chirundu border posts along the NSC.

A corridor performance measurement system must be designed and implemented to suite the specific needs of corridor role-players. MS may implement manual or automated systems to collect road transport data (e.g. through surveys or data provided by trucking companies). To succeed, robust ICT infrastructure and automated processes should be in place.

The technologies available today include real-time monitoring systems, servers capable of hosting the information exchange and / or data exchange interface, cloud computing, mobile technologies, advanced analytics and information management. All these technologies help to reduce processing time for transit operations, reduce trade and transport costs, improve revenue collection and stimulate economic growth.

Essentially the main idea behind the automation of processes and setting up of ICT infrastructure is to achieve uniformity, transparency and predictability of corridor formalities / processes. When setting up ICT infrastructure, corridor role-players should consider its ability to save and re-launch processes interrupted by power outages, weak internet connections and other emergency situations.

4.2.2 Identification of Corridor Categories and Corridor Performance Indicators

Transport corridors in the SADC have different characteristics and the detailed nature faced by transporters differ from one corridor to the next. At analytical level, those differences are likely to result in prioritising different sets of indicators and measurements to understand the root causes of challenges. According to Hartman (2013:7), corridor performance can be measured according to 4 categories (also referred to as dimensions), as illustrated in Figure 5 below.

Figure 5: Corridor Categories

Source: Hartman. 2013, as amended

Essentially, a corridor performance indicator is a summary of various observations that vary from one shipment to another and from one route to the next. Table 17 presents examples of CPIs for each of the 4 corridor categories.

Table 17: Corridor Indicators for the Various Corridor Categories

Category	Description	Indicators
Prices / Cost	Are largely influenced by volumes, notably the balance of trade in terms of cargo types and direction, but also the absolute volumes, which largely determine the level of competition among transporters.	✓ Port charges; ✓ Charges by customs and transit agencies; ✓ Cost of road transport; ✓ Road maintenance cost.
Time & Delays	Is associated with individual processes, the idle time between successive processes and the variation of times resulting in the uncertainties of delays for port dwell time, transport time and final clearance.	✓ Stoppage time at weighbridges; ✓ Stoppage time at police checks; ✓ Stoppage time at border posts; ✓ Transit time to destination; ✓ Average number of stops per truck per country.
Volumes	Depend primarily on the level of economic activity in the catchment area of the corridor (the hinterland). Volumes are classified by nature (intra-regional, transit, international).	✓ Overall cargo traffic at seaport; ✓ Volume of imports by country; ✓ Volume of exports by country; ✓ Ratio of trucks per country.
Efficiency	Efficiency of transport infrastructure and services in terms of design capacity and efficiency for each of the main corridor modes and nodes.	✓ Dwell time; ✓ Customs release time; ✓ Ship turnaround time; ✓ Truck turnaround time.

Source: Hartman. 2013, as amended

It is clear from the information displayed in table 17 that most sets of corridor indicators include measures of *time* and *costs* that differ from one corridor to the next. Cost for example could be measured by tonnage, consignment, truck, container or TEU. As far as volumes are concerned, there is an increasing focus globally on pricing services according to the number of TEUs transported. However, the measure used by many customs administrators, or even by transporters in Africa is still to prices transport services per ton, or per consignment.

While corridor role-players in the SADC should consider the corridor categories and indicators when designing corridor performance monitoring systems for strategic corridors that traverse the region, affected parties should remember that CPIs are not only important in measuring performance, but also in determining the drivers of inefficiencies, which is key in determining the areas in which interventions are required and the nature of interventions needed.

4.3 Status of Corridor Performance Monitoring in the SADC

4.3.1 Traditional Approach - Choke Monitoring

Earlier discussions of this chapter alluded to the fact that a corridor-wide performance monitoring system has not yet been implemented along any of the major road transport corridors that traverse the SADC region. Detailed monitoring of major choke-points along the NSC - the Beitbridge and Chirundu border posts - have been conducted during 2006 and 2007.

FESARTA led the monitoring project at Beitbridge, which was completed in June 2006. This organisation also managed the monitoring at Chirundu border post. Two categories of data were collected during the monitoring period, namely *descriptive data* on vehicle and consignments carried, as well as data on the *length of time each stage* of the clearing process took.

At Chirundu, the monitoring package was designed to follow the physical process, or document flow from arrival at the exit border post to departure from the entry border post. Any inaccurate or suspect data entered into the system showed up as out of sequence and was omitted. The data collected allowed the calculation of time it took to complete each clearance process. Furthermore, it also provided insight on market share (based on truck registrations by country) and by transporter.

The analysis of data collected was kept as simple as possible, using spreadsheets, one for northbound transit, and one for southbound transit. Spreadsheets produced *indicative data* on delays and revealed the time spent by drivers with different authorities / agents (e.g. Zimbabwe and Zambia agents, ZIMRA, ZRA), as well as other delays points within the border precinct (e.g. weighbridge, driver idle time).

The reasons for any delays in the clearance process were captured and included congested borders, document errors, vehicle breakdowns, unavailability of diesel and driver behaviour (personal stops). The study also revealed the total and averages for each transit movement, the latter which were split up into:

- Border clearance; and
- Pre-clearance.

The output of the monitoring exercise was the compilation and circulation of various reports that provided details on:

- Average hours taken by trucks carrying all categories of goods to transit the Chirundu border, both northbound and southbound;
- Average hours taken by trucks to transit the border for various categories (e.g. single line, breakbulk, consolidated, refrigerated, tankers and containers);
- Allocation of delays to different border authorities, drivers, agents and transporters;
- Effect of commodities on transit times;
- Monitoring sample as a percentage of total truck traffic count, transit time of day and the percentage of pre- and border clearances; and
- Transporter representation by country.

The monitoring of traffic movements through the Beitbridge and Chirundu proved valuable insofar the details and causes of delays at both borders have been documented. Since the completion of the monitoring study at Chirundu, this border has been transformed into a functioning OSBP. A second round of monitoring was conducted after the operationalisation of the one-stop border to record the changes. Noticeable improvements included a significant reduction in time spend at borders for commercial cross-border road freight vehicles due to quicker clearing processes.

In recent years, similar studies have been conducted at various strategic borders in the SADC to monitor delays at borders and pinpoint the causes of such delays. In this regard, the C-BRTA is currently conducting surveys at various strategic border posts to measure transit time. To date surveys have been conducted at the following border posts: Grobler's Bridge / Martins Drift, Kopfontein / Tlokweng, Beitbridge and Lebombo / Ressano Garcia. The output of this initiative will be used to engage stakeholders with a view to finding solutions to bottlenecks at border posts.

In future, SMART technologies, such as Automated Number Plate Recognition (ANPR), Global Positioning Systems (GPS) and Radio Frequency Identification (RFID) technologies will be used to collect and process information. Information gathered from these technologies will be complemented by manual traffic surveys to test / refine results.

Given the absence of a comprehensive mechanism to measure border transit times in the SADC, the successful completion of the C-BRTA initiative will provide valuable information to public and private corridor role-players that will inform decision-making processes.

4.3.2 Movement towards Corridor-Wide Monitoring

Corridor-wide monitoring covers the entire length of the corridor and focuses on solutions that will optimise corridor efficiency. This method involves the establishment of on-line corridor observatories to continuously measuring corridor performance according to pre-determined corridor categories and indicators. Information is gathered from focal points, such as customs, weighbridges and through the "trip sheet" system used by many transport operators.

The successful implication of corridor-wide monitoring depends greatly on the existence of financially sustainable corridor management institutions to monitor transport activities along the entire corridor. This poses a problem for the region as several strategic transport corridors (e.g. NSC, Lebombo and Beira) do not have functioning CMI. An exception is the TKC that possesses a strong CMI, the TKCMI that acts as tripartite trans-boundary corridor management institution.

4.3.2.1 Progress made towards implementing Corridor-wide Monitoring along the TKC

As already stated, the TKC Secretariat is collaborating with the C-BRTA towards developing a corridor performance monitoring system for the TKC to monitor corridor performance and devise actions to address bottlenecks (delays) along the corridor. Several attributes make the TKC an ideal candidate for a case study review in monitoring progress made towards implementing a formal corridor performance monitoring system. The corridor strengths include:

- Existence of a strong / reputable corridor management institution;
- Existence of well-developed port and road infrastructure;
- Year-on-year growth in traffic volumes along the corridor;

- Active private sector involvement in stakeholder discussion platforms, as well as in financing infrastructure programmes along the corridor; and
- Successful implementation of several trade facilitation programmes (e.g. Single Administrative Document) at selected border posts along the TKC.

The following milestones have been achieved to date in developing a corridor performance monitoring system for the TKC:

- Development of a stakeholder engagement plan;
- Identification of Corridor Categories and CPI's (like those displayed in table 17);
- Presentation of the Corridor Categories and Indicators to the TKC Secretariat in March 2019;
- Engagements with corridor role-players (e.g. WBCG, cross-border road transport operators, customs & immigration authorities);
- Refinement of Corridor Categories / Indicators according to input received from prioritised stakeholders; and
- On-going planning activities in support of the piloting exercise.

Outstanding actions include:

- Establishment of a Task Team;
- Piloting of CPIs along a stretch of the TKC corridor (port of Walvis Bay and section of the road transport corridor);
- Data analysis and refinement of CPIs after the piloting exercise;
- Follow-up engagements with corridor role-players;
- Drafting of the CPI report and presentation of key-findings; and
- Planning to extend the piloting exercise to the entire corridor.

Once CPIs have been piloted and refined, this initiative can be elevated to the next level that encompasses the development of an electronic platform (transport observatory) to monitor traffic flows along the TKC. This on-line platform will have the capabilities to capture information received from various parties (e.g. port of Walvis Bay, cross-border operators, customs authorities), process corridor information and distribute real-time data to interest groups.

Although the benefits associated with online monitoring systems are well documented (e.g. reduction in cargo dwell time at seaports, decrease in border crossing time(s), increase in operator compliance) the development of transport observatories is expensive and require political buy-in from all role-players in putting systems in place that allows the online exchange of relevant corridor information. Against this background, the following Critical Success Factors (CSF) are key:

- Adequate funding is required to enable the phased development of a web-based corridor performance monitoring system for the TKC;
- Agreement should be reached amongst corridor players on the type of ICT software and systems used to share corridor information; and
- Technical resources should be appointed to develop, refine, implement and manage the web-based platform.

4.5 Conclusion

To date, the SADC has not yet implemented an online data portal (transport observatory) along any of the strategic road transport corridors that traverse the region to measure corridor performance. In the absence of a formal system that releases real-time road traffic data, it becomes challenging to prioritise infrastructure spending to address higher order needs.

Plans are underway to introduce corridor-wide monitoring along the TKC to measure the performance of this corridor from the port of Walvis Bay up to Pretoria in South Africa where the TKC connects with the MDC. The C-BRTA is assisting the TKCS in developing CPIs that will be piloted along the TKC during 2019 / 2020.

It is imperative that relevant corridor role-players (e.g. SADC MS, SADC Secretariat, CMI, private and public-sector transport and logistics service providers) join hands in developing online monitoring tools (e.g. transport observatories) that will be able to measure the performance of strategic transport corridors, from point of origin to destination points (corridor-wide performance) from an infrastructure and service delivery point of view.

In conclusion, ultimate success depends on the availability of accurate and specific data on those components of transport corridors that are not working well to influence policy-makers to direct infrastructure spending to specific points along the corridor(s) where the greatest costs are incurred.

5. FUNDING INFRASTRUCTURE IN THE SADC AND THE ROLE OF PPPS

5.1 Introduction

Even though transport infrastructure is a foundation for development, the transport sector in Africa is plagued by numerous infrastructure inefficiencies that created a huge infrastructure gap over the years. Since the 1980s, the gap between demand and supply in all infrastructure sub-sectors has been rapidly growing in Africa. While demand has increased tremendously due to strong population growth and high levels of urbanisation, supply has remained constant or has decreased.

In SADC, infrastructure development remains a critical component of the region's wider socio-economic development strategy. SADC's response to the challenges encountered in regional infrastructure development, industrialisation and economic growth and development has been to adopt the SADC RIDMP in 2012 and the SADC Industrialisation Strategy and Roadmap in 2015.

The RIDMP is at the core of SADCs regional infrastructure development and outlines the region's priority infrastructure projects in six sectors: energy, tourism, transport, ICT, meteorology and water, totalling $500 billion. These projects are either cross-border, or priority national projects expected to benefit the region. Of the total, around $100 billion is required for the implementation of transport projects between 2010-2027. (Wentworth, L. et.al. 2018: 37)

Although several years have passed since the release of the RIDMP, information sources at hand reveals that several of the projects prioritised in the RIDMP are still in the planning / conceptual phases of the project lifecycle. This is due to various factors, notably declining public-sector resources allocated to infrastructure development.

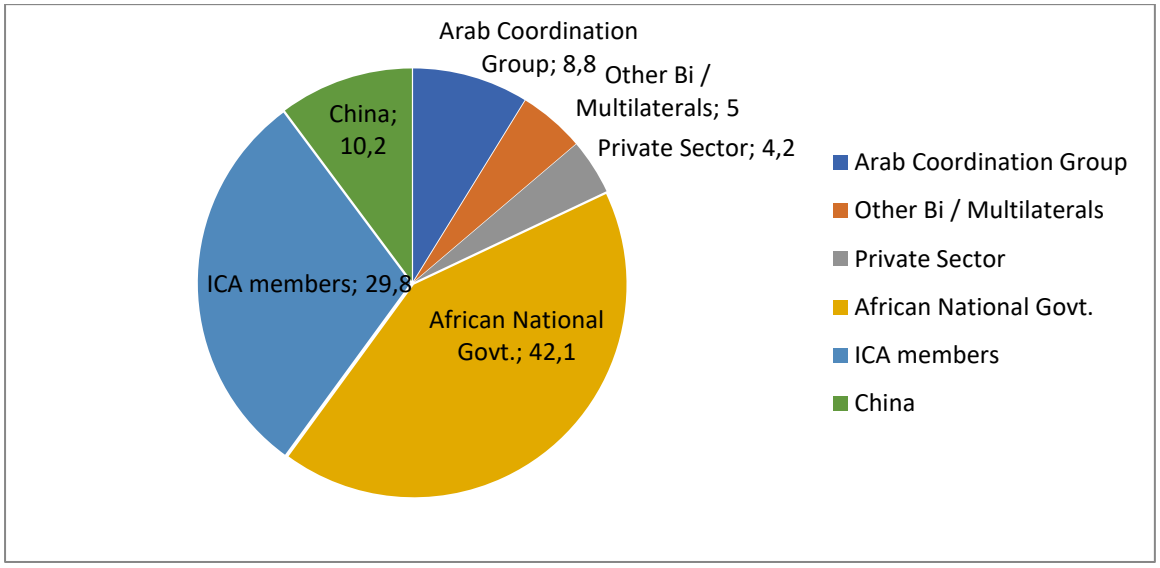
Given the constraints faced by the public sector in securing adequate financing for infrastructure development, the private sector is increasingly being regarded as an important source of investment. Around the globe, there is an increasing emphasis on the private sector, with a specific focus on PPPs. The models for private participation vary from one country to the next. Private sector involvement is limited under management and maintenance contracts, more extensive under Build-Operate-Transfer Concessions, and complete under full privatisation, where the private sector also assumes complete ownership over infrastructure assets.

PPPs in Sub-Saharan Africa remain a very small market, with projects concentrated in only a few countries, namely, South Africa, Nigeria, Kenya, and Uganda. Together these account for 48% of the 335 total PPP infrastructure projects in the region in the past 25 years. In the past five years, PPP infrastructure projects Sub-Saharan Africa have mainly been concentrated in the energy sector (78%), mostly renewables, followed by transport (22%) and water and sanitation (0.5%). (https://blogs.worldbank.org/ppps/infrastructure-africa-s-development-ppp-imperative).

5.2 The Infrastructure Funding Gap

During 2016 US$ 62,5 billion new commitments were made to Africa's infrastructure sector, both at national and regional level. Figure 6 here-under indicates total infrastructure financing by source for 2016 and reveals that African governments remain the biggest financier of infrastructure projects in Africa. (Export-Import Bank of India. 2016: 43).

Figure 6: Total Infrastructure Financing by Source



Source: Export-Import Bank of India. March 2018

Budget allocations from African national governments accounted for the bulk of infrastructure financing commitment at US$ 26.3 billion (42.1% share of total commitment) in 2016. National governments are traditionally among the most active participants in infrastructure financing and can provide debt financing through state-owned banks. They could also take equity stakes in projects and provide upfront capital grants.

The members of Infrastructure Consortium for Africa (ICA) comprising of the DBSA, European Commission (EC), European Investment Bank (EIB), Group of 8 (G8) countries, the Republic of South Africa and the World Bank Group accounted for 28,8% of financing in the same year. The private sector committed a mere US$2,6 billion (4,2% share of total commitment) which creates an opportunity for greater private sector participation in the financing of infrastructure projects on the continent, as well as in the SADC.

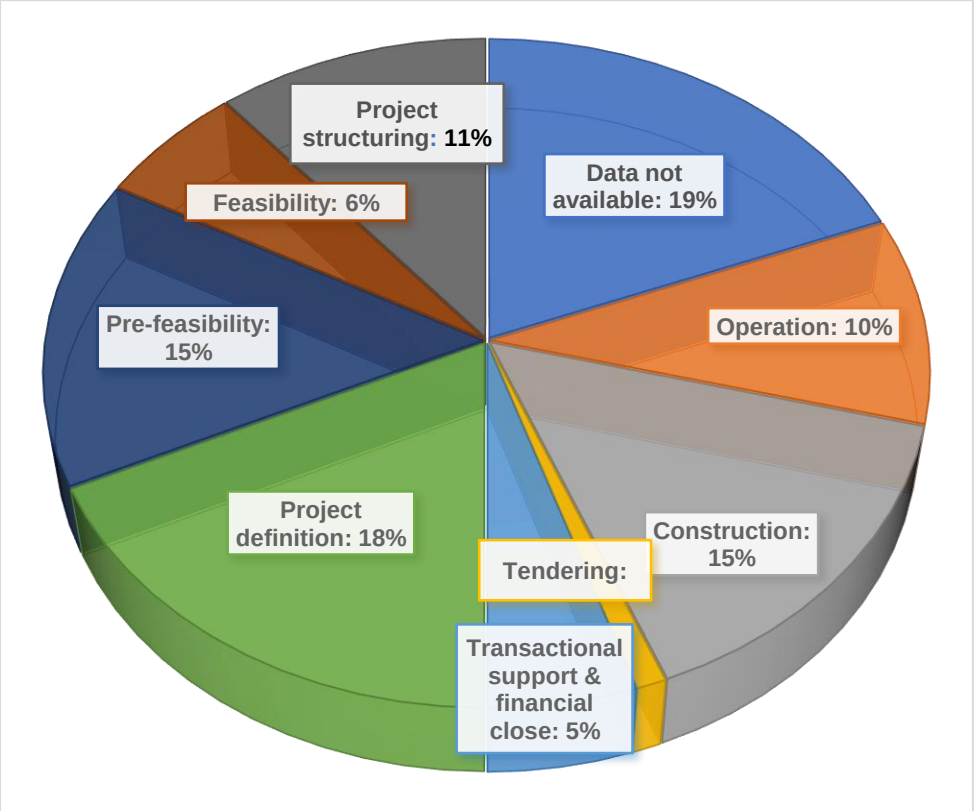
5.3 Overview of Infrastructure Financing Challenges in the SADC

The infrastructure financing deficit in the SADC region is well known and the importance of addressing it to drive regional growth and development is well understood. However, methods of tackling the financing deficit have been debated over the years. While agreement exists amongst public sector role-players that additional financing is needed to implement the RIDMP, funding is not the only constraint. The infrastructure deficit can also be attributed to a lack of bankable projects, caused by a financing gap in the early project development and project preparation stages.

In addition to infrastructure projects set out in the SADC RIDMP, the region also must deliver various infrastructure programmes under the PIDA, a strategic continental initiative that has buy-in from all African countries. The Development Bank of Southern Africa (DBSA) allocated $55 billion during 2009 – 2010 to spend on infrastructure projects in the region. However, the money was not used, due to gaps in project preparation and delivery. (Markowitz, L et.al. 2018: 2-3).

Figure 7 illustrates the project development stages of SADC's infrastructure projects for the PIDA. The region must deliver on *81* infrastructure projects under the PIDA initiative.

Figure 7: Stages of SADC PIDA Infrastructure Projects



Source: Markowitz, C. 2018

Of the *81* SADC PIDA infrastructure projects:

- 18% are still in the project definition phase that has the longest lead time in the project life cycle;
- Data are not available for 19%;
- Only 11% are in the project structuring phase;
- 21% are in the pre-feasibility and feasibility stages;
- 11% are in the project structuring stage;
- 5% are in the transaction support and financial closing stage;
- 1% are at tendering stage;
- 15% that are at the construction stage; and
- 10% at the operation stage.

From the breakdown it is evident that most bottlenecks that cause the infrastructure deficit are at the project preparation stages (project definition, pre-feasibility & feasibility, project structuring and transaction support and financial close). While project preparation is commonly associated with standard feasibility (e.g. environmental and economic feasibility) studies, the full project preparation process starts much earlier and is more comprehensive. This explains why project preparation can take several years to complete.

Table 18 hereunder provides a description of the various procedures and preparatory activities that must be undertaken before a project reaches financial close and implementation can begin.

Table 18: Overview of Project Stages

	Project Stage	Activities within each Stage
1	Enabling Environment	❖ Design legislation ❖ Define regulatory approaches ❖ Identify institutional reforms ❖ Capacity and Consensus building
Without a robust enabling environment in place, stages 2 to 6 can be facilitated. However, each stage will be project specific, depending on the sector and project modality		
2	Project Definition	❖ Identify desired outputs and project parameters ❖ Compare with alternative projects ❖ Plan implementation tasks ❖ Undertake pre-feasibility studies
3	Project feasibility	❖ Technical option analysis ❖ Financial appraisal ❖ Socio-Economic appraisal ❖ Environmental impact assessment ❖ Other specialist studies
4	Project Structuring	❖ Assessing project finance options ❖ Legal structuring ❖ Developing technical / engineering designs
5	Transactions Support	❖ Finalise project finance structure ❖ Finalise legal structure ❖ Finalise technical designs ❖ Procure goods and services
6	Post-Implementation Support	❖ Monitor outputs and outcomes regularly ❖ Perform impact evaluation ❖ Re-negotiation / re-financing

Source: Wentworth, L et.al. 2018

While the public sector should ideally support all the above-mentioned project phases, resource and capacity constraints in the SADC region make this problematic. Furthermore, private financiers and even Development Finance Institutions (DFI) are hesitant to support the earliest stages owing to a higher risk that projects will not reach financial close.

To target this bottleneck, Project Preparation Facilities (PPF), bilateral and multilateral bodies (e.g. World Bank, African Finance Development Bank, Development Bank of Southern Africa) have increased over the past two decades, specifically to support the project phases before financial close. The mandate of these institutions does not necessitate a Return on Investment (ROI). The mentioned institutions are all active in project preparation and infrastructure finance in the SADC region.

5.4 Financing the Infrastructure Gap

The project development and preparation need of SADC RIDMP and SADC PIDA projects present a unique dilemma since they consist of both soft infrastructure and long-term challenges. Soft infrastructure issues and activities associated with it, such as the need to establish greater technical capacity within in the public sector, are often unattractive to financiers as they do not generate tangible financial returns in the short-term. Furthermore, they target the early project stages where there is a high risk of project non-completion.

This is especially the case with some infrastructure projects (e.g. long-distance rural rail services) that do not automatically generate high returns on investment. The same goes for cross-border infrastructure projects. Due to the high transaction costs involved in dealing with

multiple jurisdictions, financiers are not always eager to finance cross-border projects. Coordination challenges between different parties (e.g. public and public sector, civil society and communities) also add to the problem.

SADC MS have seen declines in their fiscal space over the last decade to finance or take on risk for cross-border projects. Most countries struggle to raise public funds for their own domestic infrastructure, let alone, financing regional infrastructure projects. Budget deficits in most SADC countries have steadily increased since 2008 because of the global financial crisis's impact on trade and investment between the SADC and its major trading partners. Since 2011, public debt has gradually increased across the region.

There are ongoing discussions about establishing an infrastructure financing mechanism to support the region's ambitious transport and industrialisation plans. In this regard, the establishment of a Regional Development Fund (RDF) to provide seed funding for SADC's ambitious infrastructure plans has been on the cards since the signing of the SADC Treaty in 1992, but a decision to launch and operationalise the RDF was only taken in 2017.

SADC MS must contribute $120 million in seed funding towards the RDF. Given the disparity in levels of economic development, it is most likely that the level of contributions from SADC MS will be skewed, and that responsibility will rest with a few countries. Beyond seed contributions, it will also be required of MS to top up the RDF. (Markowitz, C. et.al. 2018: 4).

The changing nature and unpredictable future landscape of international development aid, coupled with uncertainty as to whether the RDF will be sustainable over the long-term, necessitates that SADC MS seek alternative funding sources to implement strategic transport projects at both regional (RIDMP) and continental (PIDA) level.

According to the findings of a study led by the OECD (2013:4) into policy impediments to infrastructure investment in the SADC, at least $100 billion of the infrastructure financing needs of the SADC RIDMP will have to come from private sources if the RIDMP is to be rolled out successfully over the projected short-, medium- and long-term horizons. (Organisation for Economic Co-operation and Development. 2013: 4).

Since governments, across the world and more so in Africa, are facing increasing budget pressures, the involvement of other players (e.g. multilateral development banks and private sector) in funding infrastructure projects are paramount. The next discussion sheds light on the role(s) that the private sector can perform in financing regional infrastructure investments in Africa. Specific emphasis is placed on the role of PPPs in supplementing the limited public-sector capacities to ensure sufficient funding is available, not only to prepare projects for bankability, but also to move to the construction and operation phases of the project life cycle.

5.4.1 Spectrum of Private Sector Participation in Infrastructure Development in the SADC region

Private sector participation in infrastructure can be a driving force in reducing infrastructure inefficiencies that exist in the SADC and can occur through ***full***, or ***partial*** participation. Government can either sell shares or assets held by State-Owned enterprises (SOEs) to the private sector, or through public procurement processes, which can take the form of public-private partnership (PPP) agreements whereby financing and risk are shared between the private and the public sectors (Figure 8).

Figure 8: Spectrum for Private Sector Participation

Low	Extent of Private Sector Participation			High
	→ Increasing share of risk shouldered by private sector →			
Work & Service Contract	*Management & Maintenance Contract*	*Operation and Maintenance Concessions*	*Build-Operate-Transfer Concessions*	*Full Privatisation*
Traditional Public Procurement & SOE Provision	*Public-Private Partnerships (often undertaken in collaboration with state-owned utility providers)*			*Open competition by private operators across infrastructure market*

Source: OECD. 2013

Figure 8 reveals that private sector participation in infrastructure development can constitute a collaboration between the public and private sector for delivering an investment and / or a service traditionally provided by the public sector. This type of relationship is known as PPPs.

Various forms of PPPs exist, with each form responding to different fields of application. As indicated in the above figure, the extent of private sector participation increases from the left to the right – private sector participation for example, is limited under management and maintenance contracts, whereas it is extensive under Build- Operate-Transfer (BOT) concessions.

By allocating risks to the applicable parties, PPPs can make use of the private sector's shorter, more cost-efficient delivery times and access to innovative technology and entrepreneurial expertise. As the private sector increases its participation, it assumes increasing responsibility for the functions of the design, build, finance, operation and maintenance of that infrastructure. In cases of full privatisation, the private sector also assumes complete ownership over infrastructure assets.

a) PPP Project Financing Options

PPP' involves financing from *conventional* and *innovative* mechanisms (see table 19) in some combination of *equity* and debt, with the latter usually being used as the pre-dominant part of financing. The ratio(s) of these contributions depend on negotiations between the lenders and the shareholders. Infrastructure debt – specifically private debt – has several benefits, including excellent yields and credit diversification.

Given the monopolistic character and physical nature of transport infrastructure, infrastructure debt investment frequently offers greater flexibility for lenders than traditional corporate loans or bonds. Protection for lender is enhanced by comprehensive risk monitoring. If certain key indicators show that a project is facing difficulties in repaying its debt, borrowers can trigger certain rights, such as halting further withdrawals from reserve accounts, stop paying dividends, or block further borrowing. The strength of these lender protections is demonstrated by a small percentage of infrastructure projects that default on their loans. (https://www.schroders.com/en/insights/economics/what-are-infrastructure-debt-investments/).

Table 19: Conventional Versus Innovative Financing Tools

Conventional Financing Tools	Innovative Financing Tools
Loans	Blended Financial Products
Debt and Equity Instruments	Cash-flow guarantees
Guarantees	Project Bonds
Subsidies	
Investment Grants	

Source: European Union. September 2016

Table 20 provides a summary of possible project financing sources for transport infrastructure projects in the SADC.

Table 20: Project Financing Options

	Options	Key Characteristics
1	*Loans*	• Long-term loans are provided by investment and commercial banks and IFIs. • Financing conditions depend on the project type and the security offered by 3rd parties. • Interests can be fixed, reversible or convertible. • Repayment is normally on a semi-annual or annual basis. • Grade period for capital repayment may be granted for the construction phase of projects.
2	*Equity*	• Equity is usually provided by the private sector investors acting as project sponsors. • The project development company may include one contractor that will build the facility and another one that will operate the facility during the project life. • A large part of the equity provided by the investors may be in the form of shareholders subordinated debt, for tax and accounting benefits. • Since equity holders bear primary risk under a PPP project, they will seek a higher return on the funding they provide.
3	*In-Kind Contribution*	• This is a form of financing provided by the public-sector partner, notably as in-kind equity contributions to a PPP project through the transfer of existing transport infrastructure assets.
4	*Grants*	• Are unremunerated equity provided by the public-sector. • Grants may come in the form of investment grants or tax cuts subsidies aimed at reducing the initial investment and overall project cost. • On certain projects grants may be needed to make a project bankable or affordable.
5	*Loan Guarantees*	• Is a form of indirect contribution provided by the banks, private sector sponsors or IFIs on behalf of the public-sector partner, aimed at helping a PPP project company to secure the amount of debt capital required to finance the project or a loan at favourable interest rates.
6	*Blended Financial Products*	• Blended finance is increasingly being used by international development partners to boost up infrastructure financing in Africa. • The aim is to transform available resources, normally grants into financial products such as loans, guarantees, equity and other risk-bearing mechanisms. • Blended financial products differ from conventional ones in that they embed grant money, which is often critical to enable the issue of the product itself.

		• The lead development partner would ensure the establishment of a fund where other multilateral development partners or bilateral partner countries can contribute.
7	*Cash-flow Guarantees*	• Is particularly critical for transport infrastructure projects to cover the revenue risk for the project company which cannot otherwise be effectively managed or mitigated by the private sector partner. • Cash flow guarantees substantially enhance credit quality, thereby encouraging a reduction of risk margins in the interest rates applied to senior project loans. • Savings made on lower interest rates should surpass the cost of the guarantee. • Guarantees have a limited duration, usually lasting from 5 to 7 years after project completion.
8	*Project Bonds*	• Regarded as an innovative financing tool whose objective is to stimulate capital market financing for large-scale transport infrastructure projects. • It is a debt instrument issued by private companies to attract additional private sector finance from institutional investors (e.g. pension funds) that are looking for long-term investments.
9	*Pension Funds*	• In situations of low bond market yields, pension funds may look for attractive long-term investment opportunities to diversify their holdings and meet their long-term payment obligations. • PPP project developers and governments in developed and developing countries have turned their attention to capturing the financing potential of pension funds through project bonds instruments. • The use of these instruments in most African countries remain a challenge when it comes to infrastructure development. • Investors are concerned with issues such as the absence of permanent stable cash flows and the lack of expertise by pension fund managers to assess construction risk.
10	*Local-currency bond markets*	• Present a potentially important vehicle for developing the domestic investor base for mobilising domestic savings to support public and private investment in the transport sector. • Local bond markets in many African countries remain underdeveloped and government action from the responsible ministries and Central Banks is required to strengthen local financial markets and financial institutions.
11	*Diaspora Bonds*	• Are debt instruments issued by a government, a sub-sovereign entity, or a private corporation aimed at raising finance from its overseas diaspora citizens. • Bonds are often marketed at sensible times in a country and appeal to the diaspora's patriotic feelings.
12	*Sovereign Wealth Funds*	• Are regarded as an attractive source of financing for major transport projects, especially for African countries possessing considerable oil or mineral resources reserves. • Such funds are directly or indirectly owned by governments, which would allocate a substantial portion of current and future oil or mineral extraction revenues towards the fund.

Source: European Union. September 2016

5.4.2 Managing the Shift from Public to Private Infrastructure Investment

SADC MS made several efforts to create policy frameworks that encourage private sector participation in infrastructure development. Yet due to the specific nature of public sector services and the complexity of some forms of private sector participation (illustrated in figure 8) and given to the heavy contingent liabilities that infrastructure projects may entail for public finances, the shift from public to private sector in its various degrees, involves several risks that should be carefully managed.

The emergence of regional dialogue and experience-sharing platforms, such as the SADC PPP Network, aims to address this shift, and demonstrate the increasing importance that private sector participation in infrastructure is taking on government agendas in Africa.

According to the OECD (2013: 5-6), African governments can seek to better private investment in infrastructure in the following reform areas:

- Priority should be placed on strengthening safeguards for protection of foreign and domestic investors, and tackling restrictions on private participation in infrastructure;
- Clear rules should be provided for the full spectrum of public procurement options (including PPPs), and the capacity and co-ordination of all agencies engaged in public procurements should be enhanced; and
- A level playing field should be created between public and private providers of infrastructure services, meaning that the private sector should be able to complete on an equal and complementary footing with public sector providers, inter alia; through unbundling infrastructure networks and improving corporate governance and the efficiency of State-Owned Enterprises (SOEs).

On a regional basis, SADC MSs must develop capacity at national level to manage cross-border infrastructure projects, outlined in the SADC RIDMP. Regionally strategic infrastructure projects also require some level of regulatory harmonisation across borders, which prevents additional challenges. SADC MS have different regulatory agencies and laws governing different aspects of infrastructure development, such as PPPs and dispute resolution. These differences can cause conflict and delays throughout a cross-border projects' lifecycle and increase risks for financiers.

Several SADC MS impose restrictions on private (especially foreign) participation or ownership in the infrastructure sub-sectors. An example includes the construction and maintenance of the railway network in Botswana that is open to public investment only and closed to foreign and domestic investors. The same scenario applies to the tele-communications sector in Mozambique. This trend is not unique to the SADC or other developing countries, as several OECD countries also maintain restrictions on various infrastructure markets. (OECD. 2013: 10).

Moving forward, the successful preparation and facilitation of the growing pipeline of regional infrastructure projects, will largely depend on SADC governments adhering to the following Critical Success Factors (CSF):

- Co-ordinate and harmonise legal and regulatory frameworks, e.g. by adopting common criteria for bid selection and for evaluation of PPPs;
- Adopt mechanisms for regular communication and cooperation across all relevant agencies (e.g. procurement entities, PPP units, sector regulators and competition authorities);

- Cooperate on project financing – agreement should be reached on shared development priorities that should be upheld throughout the project lifecycle, whilst also committing enough budgetary resources to shared projects;
- Jointly addressing all aspects that affect cost-recovery and bankability of infrastructure projects. This may require evaluating the costs and benefits for all countries concerned;
- Agreeing on criteria for monitoring project implementation, including means of dispute resolution or contract re-negotiation; and
- Improve the options for project financing, while also raising awareness of financing instruments, offered to developing countries by development partners and Development Finance Institutions (DFI).

5.5 Status and Examples of Public-Private Partnership Projects in the SADC region

Section 5.5 highlights PPP infrastructure projects implemented in selected SADC countries to date. The purpose of this exercise is to establish whether the venture(s) were successful and to draw on lessons learned. The discussion(s) is structured as follows:

- Policy and Institutional Framework;
- Example of PPP project(s) implemented in Malawi and Zimbabwe;
- Opportunities and Challenges encountered; and
- Policy recommendations

5.5.1 Malawi

a) Policy and Institutional Framework

Malawi has a PPP Policy framework, approved by cabinet in May 2011, that sets out the policy framework for initiating, designing and implementing PPPs in the country. The PPP Act No.27 of 2011 set out the legal framework for PPPs. As such it lays down objectives and provides for the establishment of a Public Private Partnerships Commission (PPPC). This Act also provides for PPP arrangements, procedures for awarding contracts and divesture and commercialisation of state assets.

b) PPP Project – Privatisation of Central and Eastern African Railways

In December 1999, the Central Eastern African Railways (CEAR) consortium won the right to operate the Malawi railway network after responding to a call for tender by the Privatisation Commission in the local and international press. The project was a *full privatisation* of Malawi railways where the government issued the company a concession agreement for 20 years to buy off all movable assets and run the railway network.

The concession was renewable subject to parties being satisfied with the progress made during the 20-year period. All non-movable assets (e.g. stations and buildings, rail line and houses) were not sold in the first phase although the concessionaire could use them and pay rent. If the concession was not renewed, all the movable assets were to be revalued and sold to government. Regarding incentives given to the private sector, the government offered a source of funding to be used in the rehabilitation of the movable assets through a *government guarantee loan* with the Office of the President and Cabinet.

According to the PPP agreement the role of the private sector was to run the day to day operations of Malawi Railways and to bring in private sector business skills and expertise to improve the performance of Malawi Railways. The GEAR was going to recoup its investments in the organisation through the profit the company was going to accrue. The role of government in the PPP was to act as government controller to monitor whether all the terms and conditions agreed in the concession agreement were being adhered to. *Investor's capital* was used to finance the project.

The concession agreement was the main legal document guiding the PPP project, in line with the constitution of the country and existing law in the country. The regulatory framework was laid down in the concession agreement between government and GEAR. The Privatisation Commission and the Railways department in the Ministry of Transport were the main regulators. Both institutions were mandated to constantly monitoring operations and finance through operations and financial reports. Key resources from investors of the project also undertook regular visits to monitor progress on the ground.

The accounting mechanism that have been put in place to formally account for the contingent liabilities and costs generated by the PPP project regulations of the Concessionaire through the Companies Act and requirements to comply with IFRS and IAS and to have a big four Auditor. GEAR avoided the local banks and borrowed internationally because the interest rate was lower overseas. This however, opened exposure to exchange rate risks. To minimise the risk of the demand dropping after completion resulting in failure to recover costs, a comprehensive feasibility study was conducted to ensure the project was viable.

As a mechanism to ensure skills retention and technological transfer over the duration of the implementation of the PPP, all key positions were filled by locals, with international supervisors employed to assist local employees to improve their work.

c) Opportunities and Challenges facing the PPP landscape

- **Opportunities**
  - The PPP legal framework of Malawi has several strengths, which include:
    - Clear and complete procurement procedures for award of PPP contracts;
    - Only a few cancellations during the project lifecycle;
    - Clear definition of the rights and responsibilities of public and private sector bodies;
    - Clear and complete guidelines regarding procurement control by. the public sector.
  - Efficient skills retention programmes and technological transfer took place during project execution.

- **Challenges**
  - The challenges imposed by the PPP legal framework included the absence of credible guidelines on post award PPP implementation;
  - Public misunderstanding of the PPP process led to vandalism of rail lines;
  - Unstable economic environment noted in high interest rates and volatile exchange rates which led to high exchange losses;
  - The privatisation process went hand in hand with job losses
  - Serious capacity constraints among PPP implementation agents in several fields, including public procurement, risk quantification, financial viability analysis and structuring of financial models to benchmark private sector models.

d) Policy Recommendations

The privatisation of Central and Eastern Africa Railways delivered mixed results. The following policy recommendations are proposed to reduce / eliminate the challenges that resulted from the privatisation process:

- Strengthen the regulatory framework by developing and implementing clear guidelines and procedures on the content of tender documents and develop credible post award guidelines; and
- Strengthen the capacity of PPP implementation bodies through continuous training in public procurement, risk quantification and allocation and financial modelling for PPPs.

5.5.2 Zimbabwe

a) Policy and Institutional Framework

Efforts to come up with legislation on PPPs took some time and has resulted in the slow update and conclusion of PPP projects in Zimbabwe. The Joint Ventures Act was published in February 2016. This Act provides for the institutions that are permitted to implement the Act, whereas Part II of the Schedule to the Act lists and defines the various types of PPP as falling under the purview of the Act.

e) PPP Project – The New Limpopo Bridge

The new Limpopo bridge serves as example of Southern Africa's first PPP and BOT concession. The 20-year concession was awarded to a private investor by the Governments of Zimbabwe and South Africa to build the new two-lane bridge across the Limpopo River at the Beitbridge border between South Africa and Zimbabwe, thereby replacing the old 80-year old single lane bridge.

The objective was to toll the bridge over a 20-year period and then return it to the Zimbabwean government at the end of the concession. The construction of the bridge was completed in a record time of 13 months and was officially commissioned on 24 November 1995. Operations commenced in 1996 and the concession expired in April 2014.

The Zimbabwean Government has claimed ownership and operations of the New Limpopo Bridge, following the expiry of the BOT agreement in 2014. The shareholders of the project are IDEAS Managed Fund (managed by Old Mutual Investment Group, Nedbank, Sanlam and an Israeli consortium. (http://www.africanreview.com/transport-a-logistics/logistics/zimbabwe-to-own-and-operate-new-limpopo-bridge).

The new Limpopo bridge is unique in several ways - in addition to be the first Southern African PPP project to reach the transfer stage of a BOT, the New Limpopo Bridge is also the first major infrastructure project in Zimbabwe undertaken by the private sector under BOT. Apart from the Limpopo bridge, several other transport projects were financed through PPPs in Zimbabwe over the years, as shown in table 21 below.

Table 21: PPP Transport Projects Completed in Zimbabwe

Project	Sector	Status	Type of PPP	Project Description
Beitbridge – Bulawayo Railway	Transport	Completed	BOT	Construction of a 350 km railway line between Beitbridge and Bulawayo
Newlands Bypass	Transport	Completed	BT	Four-lane highway bypassing the Newlands Shopping Centre in Harare
Plumtree – Harare – Mutare Road	Transport	Completed	BT	Rehabilitation of the Plumtree – Harare – Mutare road. Installatio of 9 toll gates
Chiremba road	Transport	Completed	BT	Construction of the Chiremba road by a private investor

Source: Zimbabwe Economic Policy Analysis and Research Unit. August 2016

BOT – Build-Operate-transfer

BT – Build-Transfer

f) Opportunities and Challenges facing the PPP Landscape

➢ **Opportunities**

- The adoption of a multi-currency system in 2009 has made Zimbabwe an attractive investment destination. The widespread use of a reserve currency, (the $) is widely accepted across the globe and has given Zimbabwe some edge in terms of business competitiveness;
- Zimbabwe has a highly skilled and technically competent labour force; and
- On-going government initiatives to introduce a one-stop investment shop can go a far way towards streamlining bureaucratic bottlenecks that tend to cripple business initiatives.

Despite the above-mentioned strengths, several challenges impact negatively on the conclusion of PPP projects in Zimbabwe. These constraints are summarised in bullet format below (Zimbabwe Economic Policy Analysis and Research Unit. 2016: 53-54):

➢ **Challenges**

- A lack of properly developed and packaged projects to attract private sector funding;
- Absence of a clear operational legal framework on PPPs;
- Non-existence of a solid implementation framework;
- Lack of proper development planning capacity at national level;
- Use of outdated equipment that is operationally cost inefficient;
- Exodus of highly skilled ad technically competent personnel in recent years; mostly to neighbouring countries, particularly South Africa;
- Poor access to low cost finance due to negative political perceptions of Zimbabwe abroad;
- Poor quality of feasibility studies and project appraisals;
- Government bureaucracy and corruption hinders smooth operations on identified PPP projects; and
- Zimbabwe's operating environment is characterised by high unemployment, a declining manufacturing base and a highly regulated business environment that undermines the country's ability to attract Foreign Direct Investment (FDI).

d) Policy Recommendations

Although the passage of the Joint Ventures Act of 2016 represents a huge milestone, various actions are required to ensure that legislation is implemented successfully. Of specific importance are the following aspects:

- Resourcing and strengthening of public sector institutions, tasked to manage and implement PPP projects;
- Adoption and adherence to strong governance frameworks that do not provide scope for corruption'
- Establish a one stop investment shop to expedite the processing of all relevant business registration stages under one roof;
- Introduce incentives for private investors to fund infrastructure projects in Zimbabwe; and
- Appoint and retain specialised skills in key project management areas (e.g. contract negotiations, project monitoring) to expedite PPP negotiations and to fast tract the implementation of PPP projects.

5.6 Dynamics facing Regionally Focused Transport Infrastructure Projects

The politics surrounding regional projects often complicate both political buy-in and resources devoted to them. The political challenges in SADC are well documented and relates to numerous factors including overlapping REC memberships, different levels of economic development between MS and different languages, to name a few. MS often struggle to raise public funds for their own (national) infrastructure projects, let alone obtaining finances for regional projects. These challenges affect MS cooperation on regional projects that could support sustainable economic development in the longer term.

The North-South Corridor railway project focuses on the rehabilitation and upgrade of railways along the corridor to allow the migration of cargo transport from road to rail. The groundwork required to prepare the NSC railway project to reach feasibility stage was significant. Firstly, it was important to secure a neutral project sponsor. This task was assigned to the NEPAD Business Foundation (NBF) who was the driving force in securing collaboration among the relevant rail operators in the countries involved in the project, i.e. South Africa, DRC, Swaziland, Botswana, Zimbabwe and Zambia.

This process took over two years and eventually led to the signing of a Memorandum of Understating (MoU) between the rail operators on the North-South Rail Corridor to facilitate regulatory and institutional harmonisation. NBF also sought higher-level political support from the SADC Ministers of Transport and regional bodies since political will is a key soft issue that often prevents projects from moving forward. The project sponsor's efforts have been successful insofar pre-feasibility funding for preparation of the North South Corridor railway project was granted by the SADC Project Preparation Development Fund (PPDF).

In terms of project status, the PIDA Virtua Information Centre indicates that the NSC railway project is still in the early stages of the project lifecycle (project definition phase), with on-going efforts directed towards developing a North-South Corridor Rail Cooperative Master Plan. (https://www.au-pida.org/pida-projects/). Given the capital-intensive nature of the NSC railway project, MS should minimise restrictions on private (domestic and foreign) participation or ownership in infrastructure projects to enhance private investment in infrastructure projects in the region. Strong political drivers, at the highest political level is required. This implies that leaders in each SADC MS should take full responsibility for developing infrastructure nationally, regionally and continentally.

Several benefits can be derived from the completion of regional infrastructure projects. The establishment of efficient and reliable transport infrastructure and systems will not only reduce transport costs for SADC MS but will also increase the competitiveness of exports originating from land-locked countries (e.g. Zambia and Zimbabwe) thereby allowing them to strengthen their position as regional transport hubs. Ultimate success in moving projects from the planning to the construction / operation phase(s) depends on several factors, including:

- Establishment and upkeep of political will throughout the entire project;
- Creation of an enabling environment for project financing;
- Diversify the options for project financing through creating a level playing field for project investors;
- Establishment of mechanisms that support regular communication and co-operation between all affected role-players; and
- Continuous monitoring through-out the project lifecycle.

5.7 Conclusion

Progress on the implementation of SADC RIDMP and SADC PIDA projects is slow, with many projects still in the project planning / conceptual phase(s). This is due to various constraints including over-reliance on public sector financing for infrastructure projects, insufficient human resource capacity (at national and regional level) to prepare projects for bankability and poor political support for regionally focused projects.

Approval to operationalise the SADC RDF represents a firm decision by SADC decision-makers to establish an infrastructure financing mechanism that support the region's industrialisation and infrastructure plans. However, uncertainty around the ability of SADC MS to contribute "seed" funding and regular replenishments towards establishing and maintaining the RDF require further consultations on how the fund will be set up and governed.

Given the scarcity of public funds, SADC MS must explore other innovative financing solutions to expedite the timeous delivery of infrastructure projects. African governments are becoming more receptive to private investment. Progress is noted in the adoption of policy frameworks that encourage private sector participation in several African countries, including South Africa, Nigeria and Malawi.

PPPs have emerged as a popular mechanism for governments to procure and implement public infrastructure using the resources of the private sector without incurring any borrowings for project implementation. Despite the benefits associated with PPPs, the private sector will only finance projects if they are commercially viable. It is thus important that SADC governments approach infrastructure development with the private sector to ensure they understand the risks from the private sector perspective, properly allocate those risks and provide appropriate risk-adjusted returns.

6. RECOMMENDED CORRIDOR REFORMS

6.1 Introduction

Several reforms (interventions) have been approved for implementation at Continental, Regional and MS level, with the aim of addressing the challenges facing the cross-border road transport sector. The reforms presented in this chapter are categorised under existing reforms (on-going reforms that are in various stages of the project lifecycle) and new reforms that are recommended in the SADC for implementation.

6.2 Existing Reforms

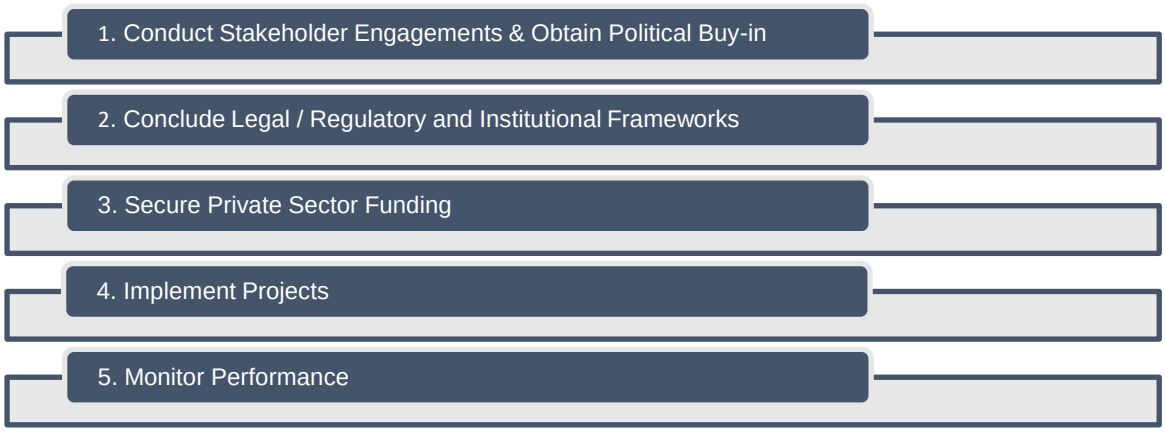
Currently the SADC region is implementing several reforms that were recommended in the previous ASCBOR reports. A high-level update on the status of on-going reforms proposed for implementation in previous ASCBOR reports is captured in section 1.7 of this report. Since the focus of the 2019 ASCBOR is on the SADC, the discussion below focuses on strategic reforms (projects and programmes) approved for implementation, some which are currently being implemented by SADC MS.

6.2.1 Prioritised Road Transport and Border Post Projects outlined in the SADC RIDMP

Information pertaining to the project status of several road transport and border post projects, prioritised for implementation in the SADC RIDMP remains hard to find. Engagements with various role-players (e.g. Ministries of Transport in selected MS, SADC Secretariat) revealed that many road transport and border post projects are still in the project planning / conceptual phases, while awaiting funding to prepare them for bankability. Prioritised RIDMP road transport and border post projects are earmarked to address infrastructure challenges along road transport corridors (e.g. poor road network connectivity, missing road links, poorly designed border posts) to improve cross-border traffic flows along regional road transport corridors.

Figure 9 sets out the steps associated with operationalising RIDMP road transport and border post projects.

Figure 9: Implement Prioritised Road Transport and Border Post Projects



Source: Figure created for study

Step 1: **Conduct Stakeholder Engagements and Obtain Political Buy-in**

The poor implementation of infrastructure projects in Africa can in part, be attributed to a lack of political will. Most road transport projects, and all border post projects set out in the SADC RIDMP require participation and commitment from all countries to ensure the successful delivery of projects, within accepted timeframes. Regular stakeholder engagements should be maintained throughout the project lifecycle to ensure momentum is kept, while also being able to attend to problems once they occur.

Step 2: Conclude Legal / Regulatory and Institutional Frameworks

Before any of the prioritised SADC RIDMP road transport and border post projects can be implemented, MS should align legal / regulatory and/or institutional frameworks in their countries. This provision especially applies to OSBPs that rely on the principle of *extra-territorial* application of laws, which allow a country to extend the application of specific national law outside of its own territory.

The legal / regulatory and institutional review should culminate in the conclusion of formal agreements between MS (e.g. MoU) whereby the rules and conditions of each party are spelled out. For border post projects, the review process should be entrenched in the domestic laws of each country by way of an appropriate Act of Parliament to give legal effect to the provisions of the formal arrangements and the principle of extra territoriality and hosting arrangements.

Step 3: Secure Private Sector Funding

Private investing in infrastructure in Africa (and the SADC) remains weak and under-developed compared to investment in other emerging regions. Earlier sections of this report revealed that this tendency is not caused by a lack of interest or funds, but rather by a shortage of bankable projects. This gap can be addressed if SADC countries invest in adequate technical resources to package projects, or resort to the services provided by existing structures (e.g. SADC Project Preparation and Development Facility).

Step 4: Implement Projects

Once steps 2 and 3 have been executed, Terms of Reference (ToR) drafted and Service Provider's (SP) appointed, the actual construction of SADC RIDMP road transport and border post projects can commence. During this phase, technical and political champions should be appointed at MS level to champion project at political level, as well as to fast-track progress.

The construction of OSBP projects goes beyond the establishment of physical infrastructure (offices and parking) to the establishment soft infrastructure, notably collaborative single window systems. The establishment of integrated ICT systems at border posts will not only optimise the efficient use of scarce resources, but also facilitate intra-inter connectivity of risk management agencies, thereby, fastening customs clearance processes at inland borders.

Step 5: Monitor Performance

Road transport and border post projects are usually large scale and long-term in nature. Since governments are usually working on several projects simultaneously, it is important that performance monitoring be conducted throughout the project lifecycle to ensure infrastructure projects run on time, within the given budget and quality specifications. Reviewing and assessing progress throughout the project lifecycle can help detect problems early on so that

they can be resolved immediately. At the same time the scope for corruption will be minimised. The recent launch of an online SADC infrastructure web portal provides invaluable project information (e.g. actual project state and project risks) to corridor role-players (e.g. Ministries of Transport). This will enable planning authorities to respond to project risks as and when they occur.

6.2.2 Regional Legislature (Parliament)

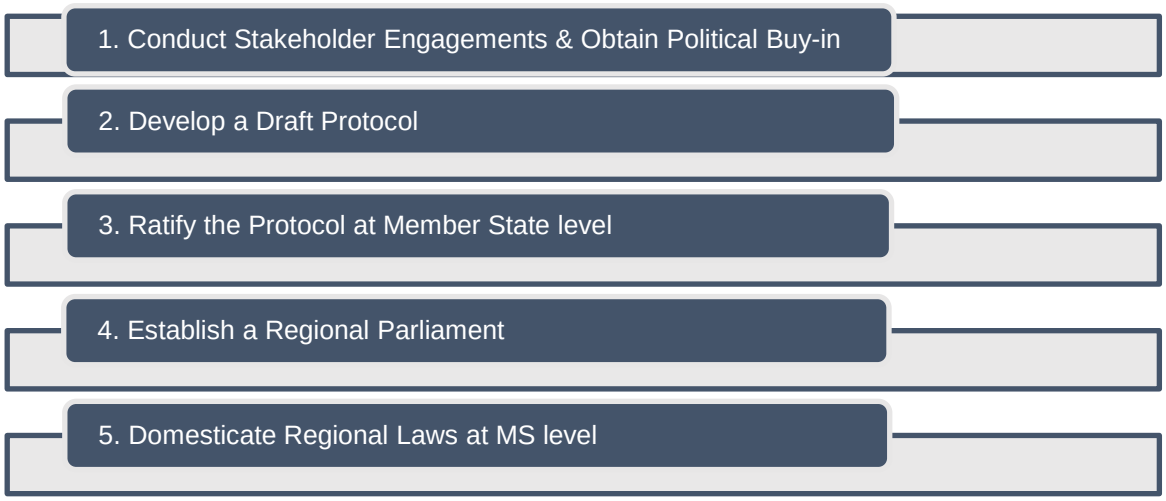
Although eight RECs are recognised by the AU as African RECs, not all of them have a regional legislative assembly that holds MS accountable for the implementation of continental and regional decisions. The SADC does not have a regional Parliament in place and has experienced less success with the implementation of strategic transport projects / programmes than other African RECs (e.g. EAC) that has a regional parliament. Currently the implementation of continental and regional reforms in the SADC depends on the willingness and political will of SADC governments to carry out regional decisions at MS level.

Since African RECs are the building blocks through which continental and regional initiatives (e.g. Continental and Tripartite Free Trade Area's) will be implemented, the existence of independent regional legislatures to oversee the timeous implementation of regional projects within budget and quality specifications, will go a far way towards meeting continental and regional aspirations.

Progress towards establishing a SADC Legislature is noted in on-going talks amongst key regional role-players to restructure the governance paradigm. Given its autonomous legal character the regional Parliament will be able to enforce the implementation of regional decisions (reforms) and impose sanctions upon defaulting MS. Until this reform is operationalised, the SADC Parliamentary Forum (SADC-PF), composed of Members of Parliament from national parliaments in MS provides a framework for dialogue on issues of regional interest and concern.

Figure 10 illustrates the steps associated with establishing a SADC Legislature.

Figure 10: Establish a Regional Legislature



Source: Figure created for study

Step 1: **Conduct Stakeholder Engagements and Obtain Political Buy-in**

Strategic engagements should continue and intensity at regional level to gain support from all role-players for the establishment of a regional Parliament. Representatives from each MS should be encouraged to participate in regional forums. It will be easier to build trust and support from all SADC MS if all parties understand the collective benefits that can be accrued for the region once this autonomous regional legislature is up and running.

Step 2: Develop a draft Protocol

Once political buy-in has been obtained from all role-players a draft protocol should be developed on the establishment of a regional Parliament that defines the powers, functions and relational linkages among the proposed Parliamentary body, national Parliaments and other organs of the SADC.

Steps 3 and 4: Ratify the Protocol at Member State level and establish Regional Parliament

Upon completion, the draft Protocol should be presented to SADC MS for approval and ratification where-after the SADC-PF will be elevated into a fully-fledged regional Parliament that will have the powers to enforce the domestication of regional laws at MS level.

Step 5: **Domesticate Regional laws at Member State level**

It is foreseen that regional initiatives / laws will be debated by national assemblies, where-after they will be rectified and domesticated to form part of the legislature of SADC MS. The importance of establishing political support and buy-in amongst MS cannot be over-emphasised. Ultimately, success depends on the willingness of MS to cede a degree of sovereignty by national Parliaments and MS before the SADC Parliament will be empowered to legislate.

6.2.3 Corridor Performance Monitoring System(s) for the SADC

Real-time data on traffic flows along regional road transport corridors that traverse the SADC is not readily available. In the absence of reliable corridor data, cross-border road transport operators cannot pre-plan and adjust their journeys according to traffic conditions, resulting in time delays, additional transportation costs and unpredictable service deliveries.

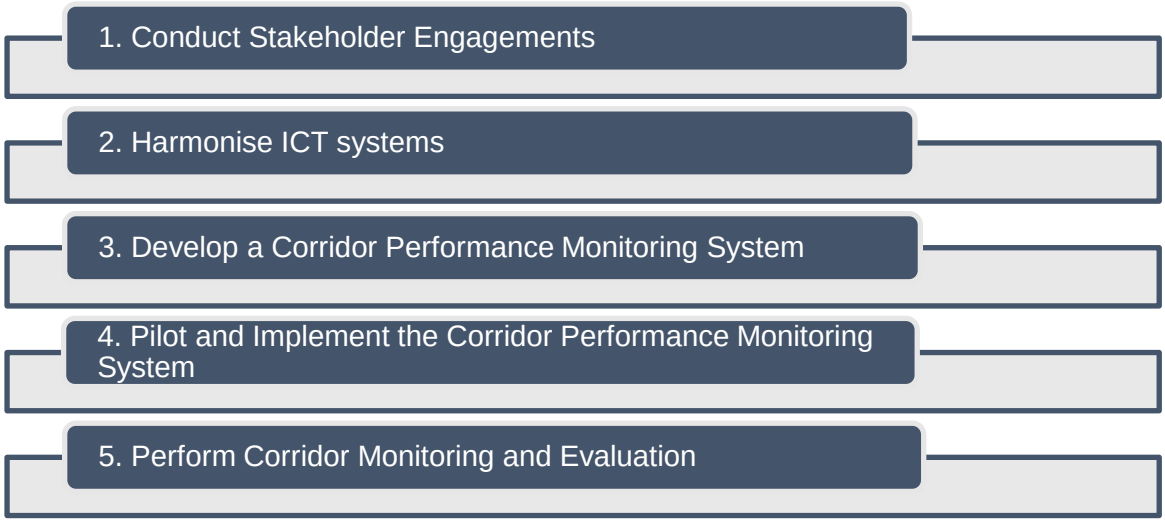
This reform supports the staggered implementation of corridor performance monitoring systems for all strategic transport corridors that run through the region. This implies the development and launch of comprehensive on-line corridor performance monitoring tool(s) that measure corridor performance according to a list of pre-determined KPIs.

An initiative unfolding in the Tripartite is the development of a web-based corridor performance monitoring system that measures border crossing and route trucking time for several corridors in the East and Southern African region. As a member of the Tripartite alliance, cross-border operators conducting business for reward in the SADC can access this online monitoring tool to obtain real-time data on traffic flows at specific locations in the SADC (e.g. border crossings), while public sector authorities can identify choke-points along corridors that need to be prioritised for improvement. The Tripartite system is useful insofar it performs detailed monitoring at specific locations along several regional road transport corridors in the EAC-COMESA-SADC region. However, it does not cover the entire corridor stretch, between origin and destination points.

Moving forward, it is recommended that functioning CMIs in the SADC (e.g. Walvis Bay Corridor group and TKC) familiarise themselves with the Tripartite online system, where-after they liaise with public and private sector players, involved in that corridor (e.g. clearing agents, cross-border operators, Ministries of Transport) to reach agreement on the development of corridor-wide monitoring systems for prioritised corridors that capture and process corridor information and distribute real-time data on traffic flows between origin (often sea-ports) and final destination (often dry ports or the shippers premises). Care should be taken to ensure new systems can interface with existing systems (Tripartite monitoring tool).

Figure 11 encapsulates the steps associated with implementing this reform.

Figure 11: Implement Corridor Performance Monitoring Systems



Source: Figure created for study

Step 1: Conduct Stakeholder Engagements

Strategic engagements with all role-players performing functions along prioritised corridors in the SADC should intensify to obtain buy-in and support for this initiative. Where CMIs exist, scheduled CMI meetings should propose this reform to interested parties for approval. The need for, and envisioned benefits associated with this reform should be shared with all parties to bring them on board. The success of this initiative depends on the willingness of all corridor role-players to share relevant corridor information that will feed into the corridor-wide online monitoring system(s).

Step 2: Harmonise ICT Systems

Given the fact that the SADC does not currently have online monitoring systems to measure corridor performance for any of the corridors that traverse the region, the execution of this reform will be both time consuming and expensive. To allow the online sharing of corridor data between different online platforms, ICT systems and procedures should be harmonised. This may proof to be challenging and costly since ICT capacity varies from one MS to the next. Different ICT software systems are utilised by SADC countries, with some role-players still capturing information by hand. Strong institutional support will be required. Oversight may be provided by existing CMIs, or new structures should be established to perform this role.

Step 3: Develop Corridor Performance Monitoring System(s)

Once ICT systems and software have been harmonised to enable the electronic sharing of corridor information, the development process can commence. During the design phase continuous support and cooperation from all corridor role-players (e.g. port authorities, clearing agents, cross-border operators, border agencies) is required since it will be expected of each role-player to submit relevant information that will serve as input data into the online monitoring system. Information on cross-border flows can be extracted from GPS kits installed in cross-border vehicles. The selection of CPIs will occur during this phase.

Step 4: Pilot and Implement Corridor Performance Monitoring System(s)

Upon completion, the online monitoring system should be piloted along a section of a well-functioning corridor (e.g. between the seaport and first border post) to test for system failures and to update the system. The TKC is currently developing a corridor performance monitoring tool with assistance from the C-BRTA. Progress to date include the selection and refinement of CPIs for the TKC.

Step 5: Perform Corridor Monitoring and Evaluation

Corridor progress should be monitored regularly according to several CPIs to test for system failures and to improve / update the existing system. The availability of real-time data on cross-border traffic flows along the focus corridors of this report (e.g. NSC, MDC, TKC, Walvis Bay – Ndola – Lubumbashi) will not only enable decision-makers to identify choke-points along corridors that require attention but may also entice foreign investors to fund strategic infrastructure projects in the SADC. It is easier to build trust (confidence) if figures are available to all parties.

6.2.4 Truck Stops Along Strategic Transport Corridors in the SADC

The African continent faces the highest rate of road fatalities in the world, despite comparatively low levels of motorisation. To reverse this trend, various African RECs initiated reforms in recent years that seek to improve road safety. In SADC, the Walvis Bay Corridor Group initiated a feasibility study pertaining to the establishment of roadside stations (truck stops) along all Walvis Bay corridors in a quest to reduce the high accident rate along the Walvis Bay road transport corridors.

The findings of the feasibility study identified suitable locations for the establishment of truck stops, equipped with rest and basic maintenance facilities, at regular intervals along all of the Walvis Bay corridors. Since the release of the feasibility study in 2013, the TKC Secretariat and the Walvis Bay Corridor group elevated consultations with relevant stakeholders to obtain support for this initiative. Although the private sector has shown interest in this initiative and indicated which locations they support, the unwillingness of Land Boards to avail land for development have delayed the process and to date construction activities have not yet commenced.

This reform proposes that the truck stop initiative be extended to other strategic corridors in the SADC that experience high traffic volumes to promote the safe and efficient movement of cross-border traffic.

Figure 12 illustrates the envisioned steps associated with implementing this reform.

Figure 12: Establish Truck Stops along Strategic Transport Corridors

Source: Figure created for study

Step 1: Conduct Stakeholder Engagements

Discussions with all role-players involved with the transport corridor (e.g. freight forwarders, clearing agents, maritime and border post authorities, communities) should intensify to obtain buy-in and support for the establishment of truck stops. A lack of buy-in from land boards in Namibia prevented land being made development for the construction of truck stops along the TKC. This shows the importance of obtaining support from all parties during the project planning phase to ensure the project moves forward.

Step 2: Perform Feasibility Study and Environmental Impact Analysis

Once all role-players are on board, detailed feasibility studies and Environmental Impact Assessments (EIA) should be performed along transport corridors prioritised for truck stop development in the region to determine the feasibility of establishing truck stops. The location of truck stops will be informed by factors such as distance of the corridor, availability of land, zoning and ownership, condition of existing infrastructure and bulk utility services, volumes and type of traffic transported, proximity to main routes and the impact of truck stops on local communities.

Step 3: Secure Funding

If the findings of the feasibility study are in favour of the establishment of truck stops, the next step would be to package projects in such a way that they will attract private sector support through various forms of PPPs. The private sector will only finance projects if they are commercially viable. Furthermore, policy frameworks should be structured in a way that it provides mutual benefits to public and private sector partners.

Steps 4 and 5: Construct and Operationalise Truck Stops

Once funding has been secured, TOR finalised, and SP appointed, construction activities can commence. Sound project management should be maintained throughout the construction phase to ensure that project milestones are met in time and according to quality specifications. Once construction activities have been completed, the last step entails the operationalisation of truck stops.

6.2.5 Quality Regulation

The SADC region, together with EAC and COMESA is currently implementing the M-CBRTA, a sub-component of the TTTFP, that seeks to introduce quality regulation in the Tripartite, inter alia; through the harmonisation of transport laws, regulations, standards and systems (e.g. vehicle, driver, operator registration systems) to enhance transport competitiveness and market liberalisation in the Tripartite.

The MCBRTA makes provision for the development of an integrated computer system, titled Transport Register and Information Platform (TRIPS) that will monitor quality compliance in the Tripartite. A lot of work has already been covered, i.e. stakeholder consultations and validation workshops and design and development of technical documents (including the MCBRTA) model laws and standards. The MCBRTA were approved by the Council of Ministers responsible for transport in the region.

Figure 13 illustrates key actions associated with operationalising this reform.

Figure 13: Implement Quality Regulation

Source: Figure created for study

Steps 1 & 2: Conduct Stakeholder Engagements, Validate Standards and Conclude the M-CBRTA

All reforms (existing and new) proposed in this report depends on the support of all affected role-players to adopt the scope and conditions of the M-CBRTA.

Step 3: Domesticate the M-CBRTA at Country Level

After MS have signed regional agreement(s) they should amend legal frameworks in their territories to incorporate regional standards, pertaining to quality regulation into domestic legislation. Once legal frameworks have been amended, it should be presented to MS Parliaments for approval (ratification) where after new law(s) will enter into force. The successful implementation of the TTTFP depends on all Tripartite MS signing and implementing the M-CBRTA.

Step 4: Develop TRIPS

The development on an integrated computer system, titled TRIPS will monitor quality regulation in the Tripartite through releasing relevant info pertaining to operator conduct and cross-border vehicles to regulatory authorities. The availability of real-time info will enable

regulators to record transgressions and to impose penalties on cross-border vehicles that do not meet pre-scribed quality and safety standards.

Guidelines for TRIPS have been designed, but not yet approved by all participating countries. Some MS oppose the implementation on a single electronic platform that releases real-time data on cross-border movements and driver conduct in the Tripartite since they prefer to develop their own (national) systems, that will be aligned to TRIPS. Failure to reach agreement on this matter may prevent the timeous implementation of TRIPS and, therefore also the M-CBRTA, since TRIPS is a requirement to implementing the MCBRTA.

With regards to the harmonisation of ICT software / systems, limited progress is noted. A few countries still capture information manually, instead of electronically. Therefore, a lack of uniformity exists regarding the level of computerisation and scope of systems. Most countries still use stand-alone, ICT systems

Step 5: Establish New Structures

A review of existing structures is equally important. Tripartite countries should select the most appropriate institution(s) for registering operators and to manage the TRIPS system. These institutions should be equipped with the right skills and facilities and adequate budget. A regional structure should also be appointed to coordinate the implementation of the M-CBRTA. This tasked has been assigned to the SADC Secretariat, who can also provide technical assistance, to Tripartite MS's, as and when required.

Step 6: Implement Regulatory Tools for operationalising the M-CBRTA

Once the TRIPS have been developed, piloted and refined, the last step is to implement the M-CBRTA in the Tripartite region. According to project plan, signatory parties to the TTTFP should migrate to quality regulation by 2022.

Within South Africa, the C-BRTA is currently championing a reform that will assist SADC countries to domesticate the M-CBRTA. This initiative, titled Operator Compliance Accreditation Scheme (OCAS) seeks to re-define regulatory processes, procedures amongst SADC countries to enable all MS to domesticate the M-CBRTA and migrate to quality regulation over the next three to five years.

6.2.6 Risk-based Regulatory System(s) in the SADC

The efficiency of law enforcement inspections in the SADC will improve once on-going regional initiatives have been fully implemented throughout the region. The OCAS and RTMS are examples regional reforms that seek to enable operators to better respond to a changing regulatory environment, while enhancing operator compliance, regulatory efficiency and safety. Compliant operators will be rewarded for good compliance through subjecting them to less intrusive stops (law enforcement checks) along regional road transport corridors.

Figure 14 illustrates the steps associated with the implementation of risk-based regulatory systems / schemes in the SADC,

Figure 14: Implement Risk-based regulatory systems in the SADC

Source: Figure created for study

Step 1: Conduct Stakeholder Engagements

As with the other reforms proposed in this report, engagements with national and regional stakeholders (e.g. inspectors, regulatory authorities, cross-border operators) should intensify to educate them on the need for and benefits associated with risk based regulatory systems. Since RTMS and OCAS are both regional schemes, buy-in from all SADC countries is required.

Step 2: Review of Regulatory Environment in the SADC

The implementation and operation of risk-based regulatory systems in the SADC is guided by the MCBRTA. MS should review and align existing legal instruments (e.g. laws and regulations) to the MCBRTA.

Step 3: Design and Development of Regulatory Tools

MS should design domestic regulatory tools that conform to the MCBRTA. Regulatory tools must redefine the regulatory requirements, procedures, standards and systems for regulatory authorities. Furthermore, legal frameworks should also set out the technologies (e.g. telematics) that should be implemented and used to support regulatory and law enforcement operations.

Steps 4 & 5: Pilot and Implement risk-based regulatory systems

Upon completion, risk-based regulatory systems should be piloted over selected corridors to test for system errors and to improve / update systems, where-after risk-based regulatory systems should be implemented along all strategic corridors in the region. Continuous monitoring should be exercised along transport corridors to monitor performance and to plan for improvements.

6.2.7 Joint Law Enforcement Inspections

Section 5.9 of the SADC PTCM envisages harmonised road transport and law enforcement inspections, including standardised offences and penalties. Although a few voluntary joint law enforcement operations are conducted within and between countries, most law enforcement inspections are conducted in solo by many law enforcement agencies at various points along regional road transport corridors. This way of doing business results in repetitive processes, which culminate in time delays and additional logistics costs for cross-border road transport operators.

This reform proposes the establishment of mandatory joint law enforcement inspections, whereby officials from different agencies / departments (e.g. police, provincial and local government, customs & transport regulators) come together to perform law enforcement checks jointly on cross-border vehicles. Inspections should preferably be conducted at fixed check points along road transport corridors (e.g. weighbridge stations) and staggered at regular intervals along corridors to minimise disruption and unnecessary delays for operators.

Compliant operators who obtained accreditation from regional schemes (e.g. OCAS) will be rewarded for good conduct / behaviour and be subjected to less intrusive inspections along transport corridors. Apart from minimising law enforcement checks for law abiding operators, joint law enforcement checks also provide a platform for information gathering and exchange. The use of smart technology during law enforcement checks presents opportunities for the electronic capturing and sharing of information between law enforcement authorities.

The actions (steps) associated with implementing this initiative are presented in Figure 15.

Figure 15: Implement Joint Law Enforcement Inspections

Source: Figure created for study

Step1: Conduct Stakeholder Engagements

Engagements should be conducted with national and regional law enforcement authorities to create a platform for the exchange of information, the sharing of ideas and reaching agreement on the type of ICT systems / software that will be used to share information. The benefits associated with this reform should be shared with all parties. Furthermore, suitable locations for joint law enforcement inspections should be discussed.

Steps 2 and 3: Conclude Framework and Determine Suitable Locations

Once role-players have approved this initiative, a framework should be crafted that sets out infrastructure and operational requirements, as well as guidelines for conducting joint law enforcement inspections. Guidelines should stipulate the distance interval between locations where law enforcement inspections will be conducted. Road-side inspections are not recommended since limited space on the shoulder of the road interrupt seamless traffic movements and pose a safety threat since stationery vehicles obstruct the view of drivers.

Step 4: Acquire SMART technologies and Train Law Enforcement Officers

The benefits associated with the use of smart technologies will only fully materialise once SADC MS have reached agreement on the type of ICT systems and software requirements and implemented harmonised ICT systems that enable the online capturing, processing and sharing of relevant data. Once this deliverable has been met by all parties, MS can purchase technology (e.g. mobile handheld devices with scanning and reading capabilities) that allows the electronic capturing and sharing of information.

Prior to implementing smart technologies, law enforcement officers should undergo training so that they can familiarise themselves with the applications / use of such technologies. The mobile devices used by C-BRTA law enforcement officers should link up with the new permit issuing system that is currently being developed and which will be implemented during 2020. Process optimisation will be achieved by integrating the new C-BRTA permit issuing system with other national (and eventually regional systems) to improve data integrity and to share data, as and when required (e.g. when transgressions occur) with law enforcement agencies across the SADC.

In the long-term, information gathered by law enforcement officers in the SADC should feed into a single online regional platform that can be accessed by all regulatory authorities in the region. Given the capital-intensive nature of this reform, the proposal is that public sector agencies in SADC MS liaise with the private sector and co-partner with them to realise the implementation of this reform.

Steps 5 and 6: Pilot and Implement Joint Law Enforcement Inspections

Prior to implementing joint law enforcement inspections along all strategic road transport corridors in the SADC, this initiative should be piloted over one, maybe two less-trafficked corridors only to identify and rectify inefficiencies before the full-scale roll-out to other transport corridors in the region.

6.2.8 Linking Africa Plan

The Linking Africa Plan (LAP) was developed and adopted by regulatory authorities in the SADC through the Cross-Border Road Transport Regulators Forum. Acknowledging the fact that most of the delays along transport corridors are caused by soft infrastructure challenges, almost all reforms proposed in the LAP deals with soft infrastructure challenges (e.g. un-harmonised transport rules and standards & fragmented regulatory frameworks).

Implementation of LAP reforms (programmes) should be conducted in a coordinated and integrated way by all MS to enhance the fulfilment of continental aspirations (e.g. establishment of AFCFTA). Moving forward, the LAP must be elevated to the African Union Commission responsible for trade and transport.

The actions (steps) associated with implementing LAP programmes are presented in Figure 16.

Figure 16 Implement Linking Africa Plan

Source: Figure created for study

Step 1: Stakeholder Consultations and Lobbying

The LAP was presented to the CBRT-RF in October 2018 where it was adopted. Currently, engagements are taking place within the CBRT-RF with a view to streamline LAP programmes and agree on priority programmes that must be lobbied for implementation in the SADC. Lobbying involves personal engagements (e.g. conducting workshops) with relevant stakeholders to get buy-in and for stakeholders to implement priority programmes**.**

Step 2: Develop Implementation Programme and Acquire Funding

Once buy-in has been obtained from all stakeholders, an implementation programme will be developed for priority LAP programmes to guide the implementation process. The LAP implementation programme will be aligned to other strategic regional and continental initiatives. Since implementation will take place at MS level, enough funding should be acquired to assist all countries in the region to implement LAP programmes.

Step 3: Implement, Monitor and Evaluate Priority LAP Programmes

Implementation of LAP Programmes should be monitored at MS and regional level to track progress and to ensure alignment to continental initiatives. It is proposed that the CBRT-RF, in collaboration with regional secretariat(s) will monitor implementation and evaluate the impact of LAP programmes.

6.2.9 Preferred Trader Programme

The preferred trader programme is a customs programme, initiated by the SACU and designed to be the equivalent of the European Union (EU) Authorised Economic Operator (AEO) compliance model. Progress is noted in the development of a framework for the Preferred Trade Programme (scheme and operating manuals), covering around 76 operators, and the training of a critical mass of Preferred Trader auditors to effectively roll out the programme at regional level.

In South Africa, this initiative is driven by SARS. The introduction of a level two accreditation programme (known as the preferred trader) represents a partnership between SARS and those clients who have an appropriate record of compliance, financial stability, and who maintain a high quality of internal operational processes and computer systems. Compliant traders are rewarded benefits such as fewer routine documentary and physical inspections and a reduction in the amount of security required for compliance with customs procedures.

The actions (steps) associated with implementing the Preferred Trader programme are presented in Figure 17.

Figure 17: Implement the Preferred Trader Programme

Source: Figure created for study

Step 1: Stakeholder Consultations

The initial step involved consultations with national stakeholders in the trade and transport environment for marketing and creating awareness for this reform, especially with traders in the region.

Step 2: Design and Development of the Programme

Step 2 involved the design / development of the technical architecture and framework of the preferred trader programme which was done by SARS in consultation with key stakeholders in the value chain.

Step 3: Piloting

The step involves identifying and engaging with traders for piloting the programme. This is currently underway. Clients in the motor vehicle manufacturing industry – representing big businesses have been earmarked to participate in the pilot, as well as SMMEs in the Clothing and Textile Industry.

Step 4: Implement, Monitor and Evaluate

Step 4 involves actual implementation of the full programme, accompanied by continuous monitoring and evaluation. This stage has not yet commenced.

6.2.10 SMART Corridors Initiative

This continental initiative proposes that all African transport corridors be converted into SMART corridors in a phased approach over time. SMART corridors entail the use and application of Intelligent Transport Systems (ITS) to improve corridor efficiency. ITS systems simplify the administrative procedures and logistics processes, monitor traffic movements along corridors and provide real-time information to stakeholders to enable them to manage processes.

A SMART corridor's key ITS components are computerised network infrastructure, Electronic Data Interchange (EDI) and software. The NSC, and Dar es Salaam corridors has been selected as pilot SMART corridors. This initiative is still at conceptualisation phase due to funding constraints. The actions (steps) associated with implementing SMART corridors are presented in Figure 18.

Figure 18: Implement the Smart Corridors Initiative

Source: Figure created for study

Step 1: Stakeholder Consultations

Stakeholder engagements should be conducted throughout the entire project life-cycle to ensure political will amongst all affected role-players (e.g. CMI in the trade and transport environment and operator associations).

Step 2: Design and Development of SMART Programme

The TOR and Memorandum of Understanding (MoU) for the implementation of SMART corridors in Africa has been finalised. On-going actions include the development of the technical architecture and framework of the SMART programme which is done with key-stakeholders.

Step 3: Piloting

The SMART corridor initiative will be piloted over the NSC and Dar-es-Salaam corridors. This stage has not yet commenced.

Step 4: Implement, Monitor and Evaluate

Step 4 involves actual implementation of the SMART corridor initiative which will be accompanied by continuous monitoring and evaluation. This stage has not yet commenced.

6.2.11 Pre-Clearance of Freight

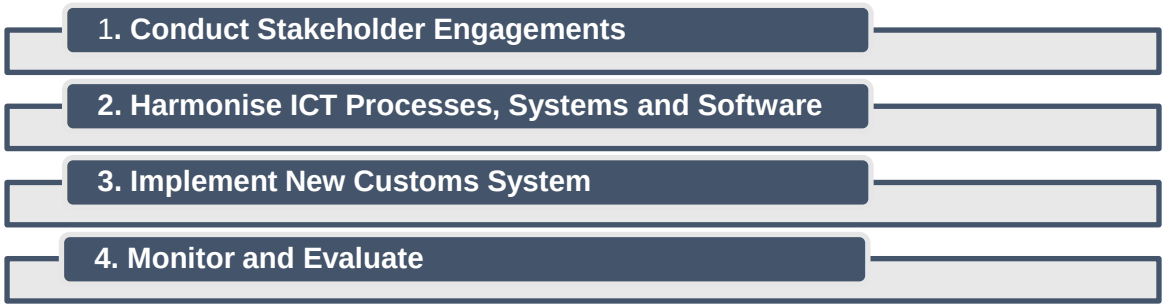
Infrastructure improvements conducted at border posts alone will not yield the giant leap required to enhance operational efficiency at strategic borders in the region. Whilst a change in border performance will be realised, more can be accomplished with pre-clearing all commercial cross-border freight vehicles before they arrive at border posts in the SADC.

The South African Revenue Services (SARS) customs modernisation programme was officially launched in South Africa in 2009 to streamline customs clearance processes. This programme entails the electronic processing of customs declarations, coupled with automated risk assessments to differentiate between low-risk and high-risk trade. Although this reform yielded significant time savings in the clearing of goods on the South African side of the border, time delays are still experienced on the other side of the border in cases where the SARS system does not interface with the customs system of the neighbouring country.

Several benefits are associated with the pre-clearance of freight, including: a decline in physical inspections at border posts, decongestion of borders, faster processing and turnaround time and a reduction in the cost of doing business.

The actions (steps) associated with implementing this reform are presented in Figure 19.

Figure 19: Conduct Pre-clearance of freight



Source: Figure created for study

Step 1: Stakeholder Consultations

The initial step involves engaging traders, freight forwarders, clearing agents and operators in the region and lobbying them to embrace the pre-clearance of freight as a standard practice.

Step 2: Harmonise ICT Processes, Systems and Software

Prior to developing new systems, agreement should be reached between affected parties on the type of ICT systems / software will be used by customs authorities to enable the electronic exchange of customs information between border authorities.

Step 3: Implement New Customs System

Step 3 involves the actual implementation of this reform (pre-clearance of commercial cross-border freight vehicles) as a standard practice to improve corridor and border post efficiency.

Step 4: Implement, Monitor and Evaluate

Continuous monitoring and evaluation should be conducted during, as well as after implementation to measure performance and to rectify errors.

6.3 New Recommended Programmes or Reforms

New reforms seek to eliminate, or at least reduce corridor inefficiencies that undermine the sustainable growth of the cross-border industry. Political support should be obtained for new reforms at regional and national level, prior to MS implementing new reforms in their territories.

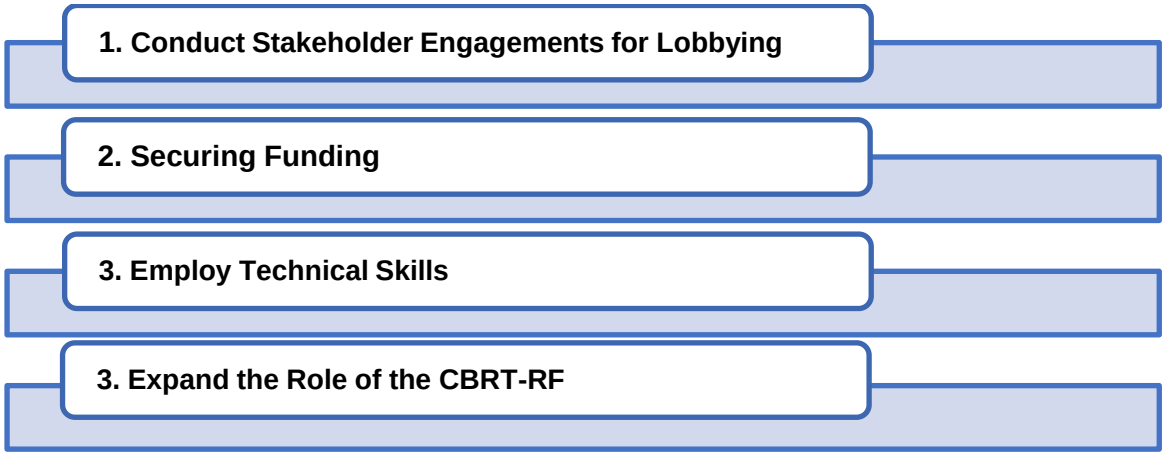
6.3.1 Expand the Role of the Cross Border Road Transport-Regulators Forum

The infrastructure challenges and operational bottlenecks experienced by cross-border road transport operators along regional road transport corridors can be resolved faster and more effectively if the CBRT-RF monitor the impact of regional programmes and report on impediments at regional forum meetings. Since role-players from all countries in the region are invited to participate in forum discussions, they can propose solutions to existing constraints.

This reform proposes that the role of the CBRT-RF be expanded from providing a platform for the sharing of information and mutual assistance to a structure tasked with the responsibility to coordinate transport programmes (including trans-boundary programmes currently unfolding in the region and the rest of the continent.

The following actions (steps) are proposed to expand the role of the CBRT-RF (see figure 20).

Figure 20: Expand the Role of the CBRT-RF



Source: Figure created for study

Step 1: Stakeholder Consultations

The initial step involves engaging with all relevant parties in the region to lobby support for expanding the role of the CBRT-RF.

Step 2: Secure Funding

The step involves the mobilisation of funding to enable the CBRT-RF to expand its scope, thereby allowing this body to take on additional role(s).

Step 3: Employ Technical Skills

The CBRT-RF should be adequately staffed, especially with resources that possess sound economic, statistical and project management skills to effectively monitor corridor performance and to manage key regional and trans-boundary projects from inception to post-completion phases.

Step 4: Implement the Expanded Role of the CBRT-RF

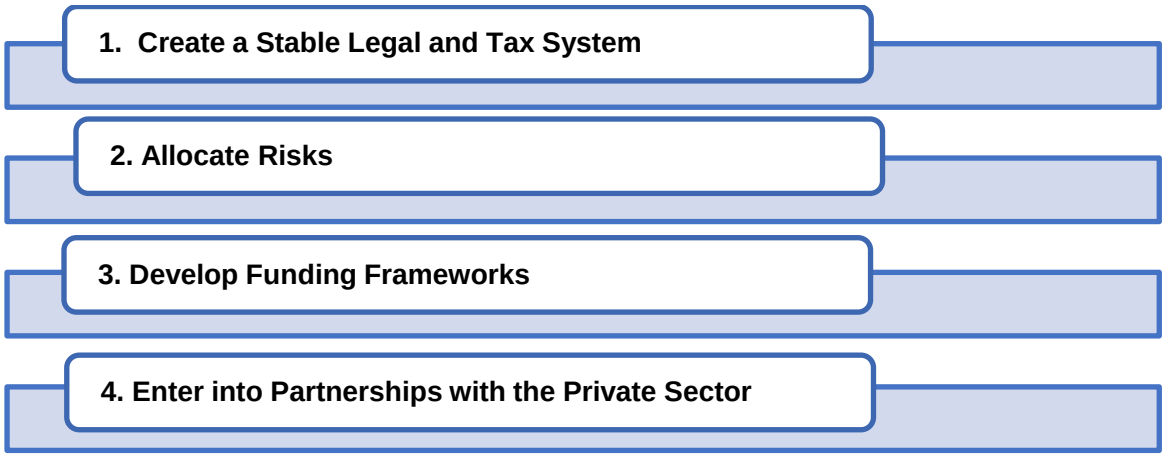
Once steps 2 and 3 have been attended to, the CBRT-RF can implement its new role.

6.3.2 Development of Funding Frameworks by SADC Member States

Although African national governments still finance the bulk of infrastructure investment on the continent, with the private sector involvement limited to a mere 5%, the emergence of regional dialogue and experience-sharing platforms, notably the SADC PPP network is slowly changing the perception of governments towards private sector participation in infrastructure.

This reform proposes that SADC MS develop funding frameworks that set out the rules and conditions, including public procurement options and mechanisms to safeguard / protect domestic and foreign investors. The private sector will only come on board, if the benefits outweigh the risks. Figure 21 outlines the actions associated with this reform.

Figure 21: Development of Funding Frameworks



Source: Figure created for study

Step 1: Create a Stable Legal and Tax System

The legal systems of SADC countries should comfort private sector role-players that all countries legal and tax systems are stable. Unfortunately, most African countries have not yet build a track record to give private sector investors comfort that their investments are safe. Stabilisation clauses should be incorporated into contracts to guarantee private investors that any change in law, including tax law, that has an adverse impact on their investment will not apply to the project, or will be made whole by government.

Step 2: Allocate Risks

The private sector will only invest in projects if they belief their investment will deliver a satisfactory return. SADC governments need to understand the risks from the private sector perspective, allocate those risks and provide appropriate risk-adjusted returns. To properly

allocate risks, it is important that the public sector liaise with financial and legal advisors with substantial expertise in project financing, private equity and the relevant sector. The type of expertise necessary to properly structure these transactions is gained only with many years of experience that very few government officials, regardless of country have.

Step 3: Develop Funding Frameworks

Once risk allocation has been done, public sector role-players in SADC countries should develop funding frameworks that clearly specify how a level playing field will be created between public and private sector providers of infrastructure. The private sector should be able to compete on an equal and complementary footing with public sector providers, otherwise they will not fund infrastructure programmes.

Funding frameworks should stipulate:

- the different public procurement options, and rules associated with each option;
- which safeguards have been put in place to protect foreign and domestic investors; and;
- the type of PPPs available; and how monitoring and evaluation will be conducted.

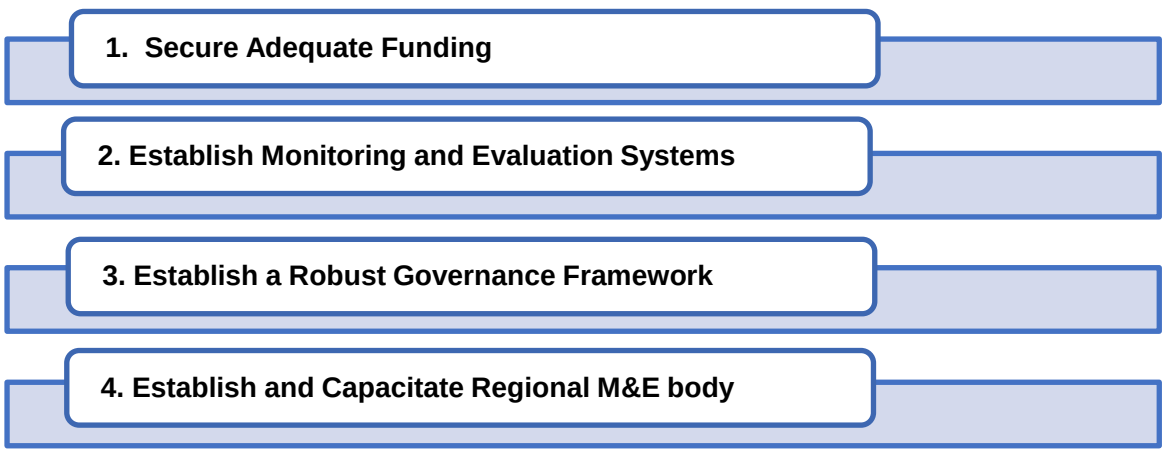
Step 4: Enter into Partnerships with the Private Sector

If the terms and conditions contained in funding frameworks advocates a level playing field between public and private sector providers, the private sector will be more inclined to fund infrastructure projects in the SADC if such projects are financially viable and sustainable. It is critical that project monitoring be conducted throughout the entire project life-cycle to monitor progress and to mitigate risks as and when they occur.

6.3.3 Establish a Regional Monitoring and Evaluation Body

It is recommended that MS establish an independent Monitoring and Evaluation (M&E) body at regional level to observe and review progress of prioritised regional infrastructure projects (those outlined in the SADC RIDMP and PIDA) and to compare actual performance against project plans to identify problems and determine where change is needed. Key-actions associated with operationalising this reform is illustrated in Figure 22.

Figure 22: Establish a Regional Monitoring and Evaluation Body



Source: Figure created for study

Step 1: Secure Adequate Funding

Due to declining public-sector finances allocated to the transport sector for infrastructure development, additional funds must be obtained to enable the establishment of a regional M&E body. During this phase, strong political will should be displayed by political leaders to convince financiers (e.g. DFI and private sector) of the long-term benefits associated with the existence of regional M&E body.

Step 2: Establish Monitoring and Evaluation Systems

Agreement should be reached on the type of M&E systems that will be used by a regional M&E body to monitor and track project performance. This requires agreement on the following actions:

- Identification of outcomes that will be monitored and evaluated;
- Type of ICT systems that will be used to process and share data;
- How baseline data on KPIs will be gathered;
- How planning for improvement will be conducted;
- How results will be analysed and monitored; and
- How findings will be used to enable improvements.

Step 3: Establish Robust Governance Framework

Prior to establishing a regional M&E body, an enabling environment should be created that incentivises good quality M&E. The requirements for M&E should be embedded into a corporate governance framework so that it becomes part of, and remains part, of key-decision-making processes of the regional M&E body.

Step 4: Establish and Capacitate Regional Monitoring and Evaluation Body

Step 4 revolves around the establishment of a M&E body at regional (SADC) level. This body can resort under existing regional structures (e.g. SADC Secretariat) or can be a stand-alone structure. The M&E body should be fully funded and equipped with the right skills-sets (e.g. project management, transport and statistical skills). Enough flexibility should be granted to data analysts to make changes where they are needed.

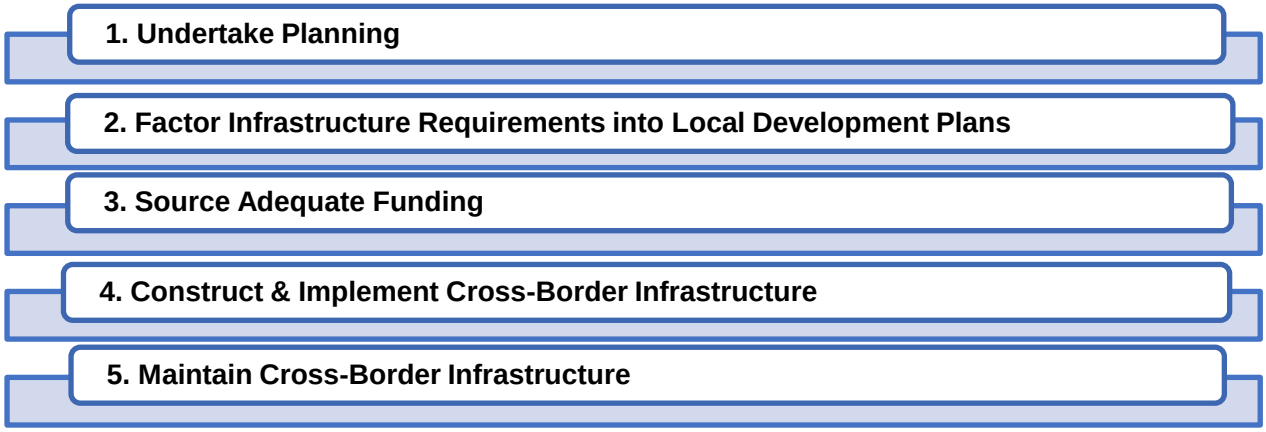
SADC MS should assign dedicated resources in their territories that will liaise closely with the regional M&E body. Assigned resources will act as implementation agents and oversee implementation in MS jurisdictions.

5.3.4 Establish Dedicated Cross-border Ranking Facilities in all SADC MS

Dedicated cross-border ranking facilities are found in a few SADC MS only. This tendency force cross-border commuters to use public transport facilities provided for domestic travel, which are busy and over-crowded. Insufficient safety and security measures at most ranking facilities and inadequate loading spaces for cross-border vehicles often result in the late departure of cross-border buses and minibus taxis.

To improve service-delivery and safety, this reform proposes the establishment of dedicated cross-border ranking facilities in all SADC MS that engage in the transportation of public sector commuters for reward in the SADC region. Figure 23 shows steps associated with implementation of the programme.

Figure 23: Establish Dedicated Cross-Border Ranking Facilities



Source: Figure created for study

Step 1: Undertake Planning

Step 1 entails the execution of comprehensive planning (e.g. demand analysis & traffic-impact studies) to assess the condition of existing ranking facilities and to determine current and future demand requirements for cross-border road passenger services. The outcome of these studies will indicate the feasibility of constructing dedicated cross-border ranking facilities. Some countries in the SADC (DRC) do not currently engage in the transportation of public commuters across national borders and may not approve this reform.

Step 2: Factor Infrastructure Requirements into Local Development Plans

The outcome of preliminary research (step 1) should be factored into local development plans, integrated transport plans and spatial development plans to ensure that cross-border infrastructure support the existing (and anticipated future) demand for cross-border road transport services.

Step 3: Source Adequate Funding

Public sector financing of public infrastructure projects / programmes continues to face challenges due to fiscal limitations and competing needs from other socio-economic sectors. It is therefore important the SADC governments seek alternative sources of funding that bring the private sector on-board in funding infrastructure projects, inter alia, through concessions, leases and PPPs. This once again underpins the importance of MS developing sustainable funding frameworks (refer to section 6.3.2) that provides favourable conditions for private sector participation.

Step 4: Construct and Implement Cross-Border Infrastructure

Once funding has been secured, ToR drafted the SP appointed, the actual construction of cross-border ranking facilities can commence at suitable locations. Actual and future demand levels will guide decisions on the size and type of facilities that will be established.

Step 5: Maintain Cross-Border Infrastructure

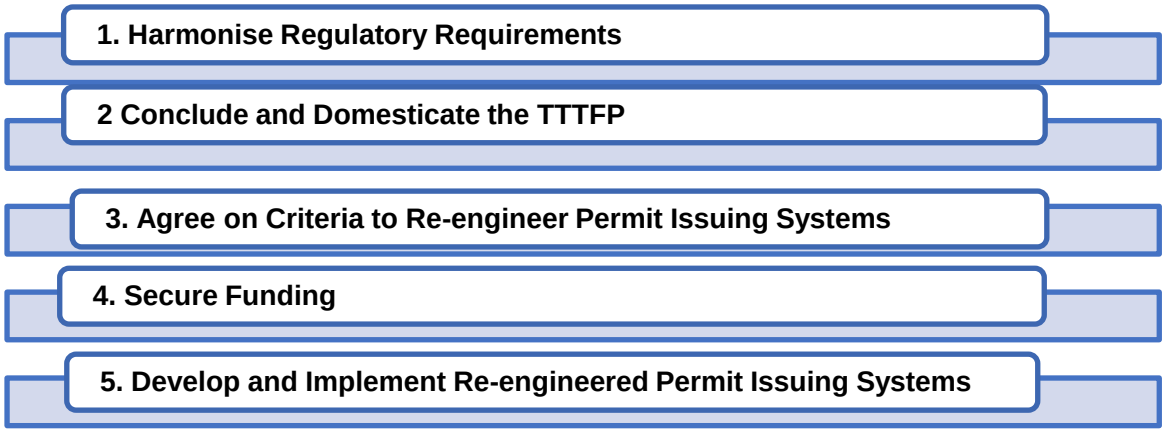
Once cross-border infrastructure has been operationalised, regular maintenance should be carried out to ensure optimal working conditions and to conserve the lifespan of such infrastructure. If is critical that local government bodies, tasked with the management of ranking facilities in all MS include the cost of maintenance in their annual budget estimates.

6.3.5 Re-engineer Permit Issuing Processes and Systems in the SADC.

Cross-border operators in the region apply for cross-border permits at the offices of regulatory authorities in the respective SADC MS. Long queues and regular service disruptions due to inadequate ICT connectivity at centralised service points, undermine service delivery and lower the demand for cross-border permits.

Inefficiencies associated with the issuing of cross-border road transport permits in the region encourage operators to obtain fraudulent permits. In some MS (e.g. South Africa) it is cheaper for road freight operators to pay a penalty for non-compliance if they are caught with fraudulent permits than it is for them to go through the tedious and costly processes of applying for a valid cross-border permit. The status quo calls for intervention to improve / re-engineer permit issuing processes throughout the region.

Figure 24: Re-engineer Permit Issuing Processes and Systems



Source: Figure created for study

***Steps 1 & 2:* Harmonise Regulatory Requirements and Implement the TTTFP**

Regulatory authorities should harmonise regulatory requirements pertaining to the application and issuing of for cross-border permits. Currently, permit fees differ from one country to the next, creating an unlevel playing field for cross-border operators. Harmonisation goes hand in hand with the adoption of common standards and the alignment of permit fees throughout the region.

The TTTFP is an on-going initiative in the Tripartite that seeks to harmonise cross-border rules, regulations and standards, also regarding the issuing of cross-border permits. Since the SADC forms part of the Tripartite alliance, SADC countries should domesticate all four key focus areas of the TTTFP in their territories through ratification by MS Parliaments. Essentially this means that SADC MS should align their permit issuing fees to the regionally accepted norm.

Step 3 **– Reach Agreement on the Criteria for Re-engineering Permit Issuing Systems**

The re-engineering of permit issuing processes goes hand in hand with the development of integrated ICT systems that allow cross-border operators to apply for permits from the comfort of their offices and homes. The adoption of a decentralised approach towards permit issuing, coupled with agreement on the application of harmonised permit issuing fees by all SADC MS will not only improve service delivery, but will also encourage cross-border operators to obtain valid cross-border permits.

The first step towards re-engineering permit issuing processes is to reach agreement on the type of ICT systems / software that will be used by all role-players who issue cross-border permits. The use of harmonised ICT systems will enable regulatory authorities to improve / expand their functions since it will enable them to share relevant information.

Harmonised ICT systems will pave the way for the establishment of integrated corridor performance monitoring systems (see section 6.2.3) that will store relevant permit statistics (e.g. number and categories of permits issued by regulatory authorities,), as well as operator and vehicle conduct in the SADC.

Step 4 **– Secure Funding**

Regulatory authorities should budget for improving existing permit issuing processes / systems since the implementation of this reform will be capital-intensive. Consideration should be given to bringing the private sector on board, not only to fund this reform, but also to provide technical expertise throughout the entire project, even after implementation (monitoring and evaluation).

Step 5 **– Develop and Implement Re-engineered Permit Issuing Systems**

Once system specifications have been set and adequate resources (funds and technical expertise) been obtained, SADC MS can go-ahead with the development and implementation of improved permit issuing systems. A piloting exercise should be conducted before full system(s) roll-out to test for failures and to correct mistakes. Monitoring should also be conducted once systems were launched to measure performance and plan for improvements.

6.3.6 Implement the International Road Transport System

This reform proposes that the SADC region implement the International Road Transport system (TIR) which is based on the TIR Convention. The TIR system facilitate legitimate trade for authorised operators as well as the seamless movement of international road freight transport movements within customs space. Within the TIR framework, authorised operators can move goods quickly across multiple customs territories under different customs control using a single customs guarantee.

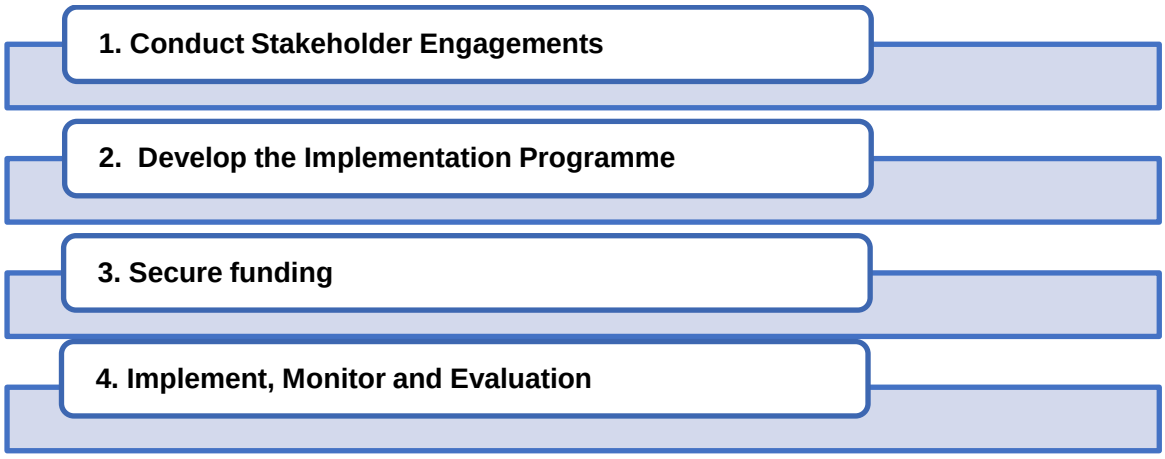
The TIR system operates based on harmonised systems and data exchange tools, meaning that operators only need to submit their declaration data once for the entire transit movement. A similar development in the COMESA is noted in the implementation of a Regional Customs Transit Guarantee (RCTG-GARNET) that allow transporters to take out a single bond covering the entire trip to fast-tract the movement of goods in the COMESA-EAC-SADC region under customs seals. To date several MS, including some SADC countries (e.g. Malawi, Tanzania and Zimbabwe) has signed and ratified the RCTG.

Furthermore, the TIR will elevate the benefits of the TTTFP and customs programmes in the region and will therefore have direct impact on transport users. Other benefits associated with the TIR include:

- Enhanced safety and security along transport corridors;
- Simplified customs clearing processes;
- Reduced administrative burden for customs authorities;
- Reduction in corridor delays;
- Enhanced trade flows;
- Cost savings for cross-border operators.

Figure 25 illustrates shows steps associated with implementation of the TIR programme.

Figure 25: Implement the International Road Transport System



Source: Figure created for study

Step 1: Conduct Stakeholder Consultations

The initial step involves engaging MS in the region to lobby support and buy-in for the TIR programme.

Step 2: Development the Implementation Programme

Step 2 involves the technical design and development of the TIR system that will be implemented in the SADC. This process may necessitate a review of regulatory frameworks to enable implementation.

Step 3: Secure Funding

Given the scarcity of public funds, SADC MS should secure additional funding to allow the implementation of the TIR programme.

Step 4: Implement, Monitor and Evaluate

Step 4 involves the implementation of the TIR programme. Continuous M&E should be performed during implementation, as well as there-after to measure results and to enable improvements, as and when required.

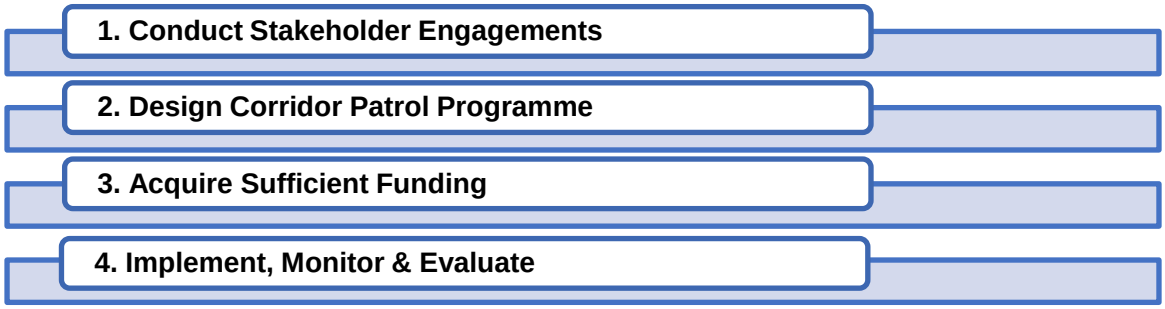
6.3.7 Implement a Corridor Patrol Programme

SADC MS need to take decisive actions against the rise of criminal activities, robberies and violence along regional transport corridors in the region, which are mostly targeted against cross-border buses and drivers. It is thus important that MS deploy corridor surveillance and patrol teams (i.e. armed police officers) as road traffic and transport law enforcement officers may not be sufficiently resourced to deal with criminals.

Experience indicates that some of the robberies are conducted by passengers themselves. It is therefore important that regulatory authorities work closely with transport operators in developing and implementing a passenger profiling system to identify potential suspect early. This programme will enhance corridor safety and security.

Figure 26 shows steps associated with implementation of the programme.

Figure 26: Implement Corridor Patrol Programme(s)



Source: Figure created for study

Step 1: Conduct Stakeholder Engagements

Engagements should be conducted between affected parties (e.g. regulatory authorities, law enforcement agencies and cross-border road passenger operators) to discuss the feasibility of this reform and to outline the actions required to implement the corridor patrol programme over prioritised corridors in the SADC.

Step 2: Design a Corridor Patrol Programme

Once buy-in has been obtained for this reform, role-players should jointly develop the corridor patrol programme. This programme should indicate the route(s) covered, outline the resource and financial and indicate the steps that will be taken after criminals have been caught.

Steps 3 & 4: Acquire Sufficient Funding & Implement, Monitor and Evaluate

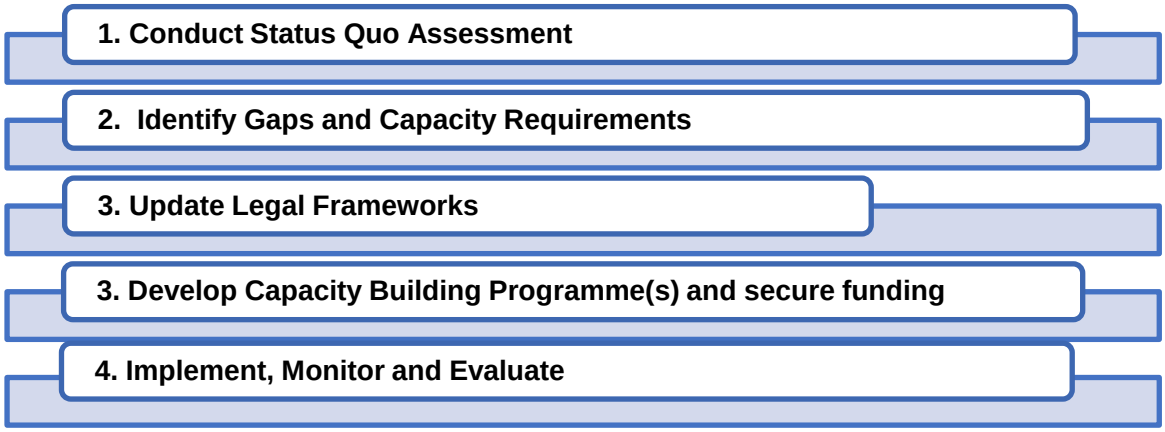
Since this is a new reform, adequate funding will have to be obtained to enable its operationalisation, where-after the corridor control programme can be implemented over prioritised corridors. Constant M&E is required to monitor results and to refine the programme to optimise its efficiency.

6.3.8 Strengthen the Mandate and Capacity of Institutions responsible for Transport and Trade Facilitation

This reform proposes that SADC MS strengthen the mandate and capacity of institutions, tasked with the responsibility to facilitate cross-border trade and transport movements in the region to enable them to fully respond to current and emerging issues in the sector.

Figure 27 shows steps associated with this reform.

Figure 27: Strengthen Mandate and Capacity of Institutions responsible for Transport and Trade Facilitation



Source: Figure created for study

Step 1: Conduct Status Quo assessment

The initial step involves engaging with prioritised public-sector trade and transport institutions (e.g. Ministries of Trade and Transport in MS, transport & transport regulators) to conduct a status quo assessment with respect to their mandate, resource requirements and systems to determine the current state of existing institutions.

Step 2: Identify Gaps and Capacity Requirements

The step involves an assessment of an ideal institution against the status quo to determine shortcomings and gaps that needs to be closed. Step 2 sets the scene for the development of capacity building programme(s).

Step 3: Update Legal Frameworks

Once support has been received from affected parties to change the mandate of trade and transport institutions in the region, MS should update legal frameworks to incorporate changes (e.g. new role(s) and functions) and ratify legal frameworks by MS Parliaments.

Step 4: Develop Capacity-building Programme and Secure Funding

The step involves design and development of interventions required to close the gap(s) determined in step 2. Funding should also be obtained for the development of fit-for-purpose programmes, upgrading of systems and appointment of skilled (technical) resources.

Step 5: Implement, Monitor and Evaluate

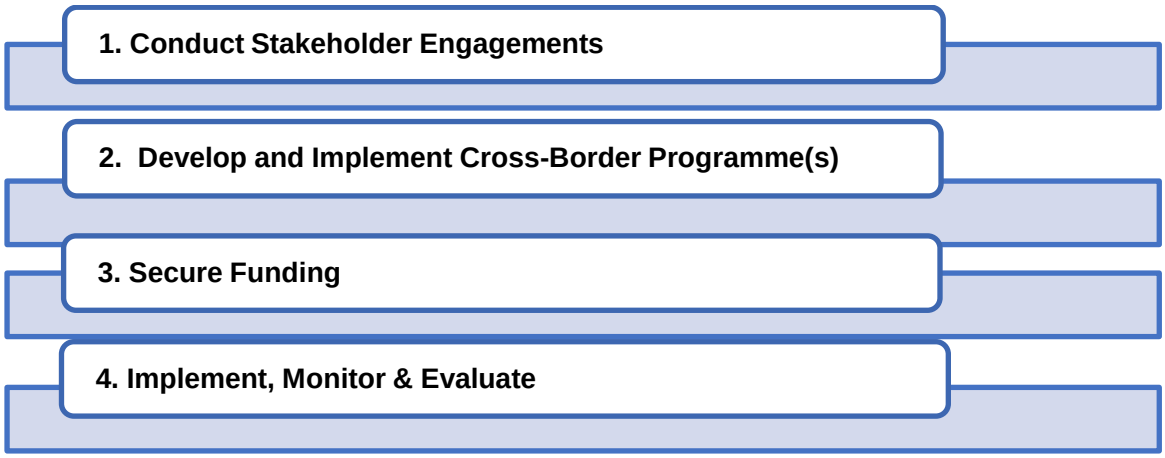
The last step involves the implementation of mandate changes and capacity-building programmes, accompanied by M&E to enable quick response to detected problems and to enable continuous improvements.

6.3.9 Professionalise the Cross-Border Road Transport Industry

Some of the challenges facing the regional road transport industry emanates from the non-professionalisation of the road transport environment, particularly with respect to drivers. MS should aim to professionalise the industry, inter alia; through educating drivers on how to deal with cross-border challenges, e.g. xenophobic attacks and border delays. The successful implementation of this reform will ensure that drivers are not just employed to drive the vehicles but are also able to handle other responsibilities such completing and submitting customs declarations.

This reform should not focus on drivers only, but also include other role-players (e.g. operational and workshop managers of companies who engage in cross-border road transport) who make decisions that affects cross-border drivers. This reform may necessitate the establishment of cross-border academies to address current gaps. Figure 28 illustrates the steps associated with implementing this reform.

Figure 28: Professionalise the Cross-Border Road Transport Industry



Source: Figure created for study

Step 1: Stakeholder Consultations

The initial step involves conducting engagements with relevant parties (e.g. cross-border operators and companies engaged in cross-border operations) to lobby support for the development and implementation of tailor-made cross-border road programmes and the establishment of cross-border academies.

Step 2: Develop and Implement Cross-Border Programme(s)

The step involves developing tailor-made cross-border programmes that will be offered by cross-border academies to professionalise the cross-border industry. All compliance requirements should be met during the development phase.

Step 3: Secure Funding

The step involves securing adequate funding for the development of training programmes, design of marketing and awareness campaigns, appointment of human resources and operational expenses.

Step 4: Implement, Monitor and Evaluate

The last step involves the establishment of cross-border academies and the implementation of tailor-made training programmes to improve professionalism in the cross-border road transport industry.

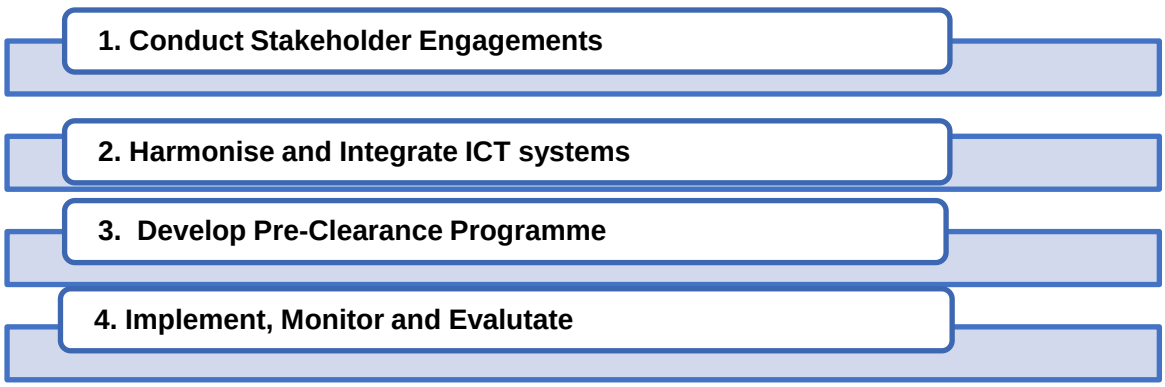
6.3.10 Pre-Clearance of Cross-Border Road Transport Passengers

MS should consider implementing a system that enables the pre-clearance of passengers before they arrive at border posts. Essentially this implies that public passenger commuters should provide information about themselves to regulatory authorities prior to the journey. Once cross-border permits have been issued, the cross-border operator will share relevant commuter information with immigration officials at border posts for validation / verification.

Benefits associated with this reform include the decongestion of borders as well as significant time savings at inland border posts. Another advantage is that immigration officials will be able to profile operator conduct, which could act as a precursor for future incentives to operators who carry legitimate passengers.

Figure 29 depicts the steps associated with implementing this reform.

Figure 29: Implement Passenger Pre-clearance



Source: Figure created for study

Step 1: Conduct Stakeholder Engagements

Step 1 involves engaging cross-border passengers and relevant public-sector agencies (e.g. Immigration and transport regulators in the region) to lobby support for this reform.

Step 2: Harmonise and Integrate ICT Systems

The harmonisation of ICT systems should be established amongst relevant border agencies (e.g. Immigration) prior to implementing this reform to enable the electronic sharing of cross-border passenger information with relevant authorities.

Step 3: Develop a Pre-clearance Programme

The step involves the design of a pre-clearance programme that indicates what documents should be submitted to pre-clear passengers, the format in which documents should be submitted, time-lines for submission and response and penalties that will be imposed for non-compliance.

Step 4: Implement, Monitor and Evaluate

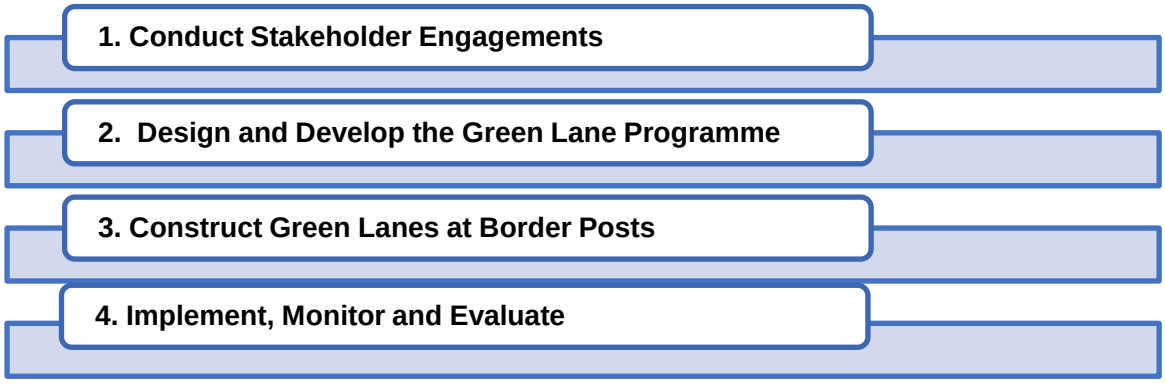
The last step involves implementing the pre-clearance of cross-border passengers. It is advised that this reform be piloted at a few, less-trafficked borders to test for failures and to allow for improvements, before expanding it to other borders. Continuous M&E should be conducted through-out the project life-cycle to optimise the benefits associated with this reform.

6.3.11 Implement Green Lanes for Compliant and Pre-Cleared Vehicles

This reform proposes that MS implement green-lanes at all strategic border posts, dedicated for sole use by cross-border vehicles that obtained pre-clearance prior to entering the border. Since pre-cleared vehicles will be separated from uncleared vehicles, compliant operators will enjoy several benefits, including faster clearance and a reduction in time spent at borders.

The full operationalisation of this reform will not only reduce congestion at border posts, but will also enhance productivity, efficiency and trade flows throughout in the region. Figure 30 sets out the steps associated with implementing this reform.

Figure 30: Implement Green Lanes for Precleared Vehicles



Source: Figure created for study

Step 1: Conduct Stakeholder Engagements

The initial step involves engaging all affected role-players (e.g. regulatory authorities and border post stakeholders in the region) to lobby support for the establishment of green lanes for all pre-cleared vehicles.

Step 2: Design and Develop the Green Lane Programme

Once buy-in has been obtained for this reform, a programme should be developed that addresses aspects such as new border post layout, amended process flows at borders, and funding and signage requirements.

Step 3: Construct Green Lanes at Border Posts

The step involves constructing new lanes or allocating existing lanes at border posts for green lanes.

Step 4: Implement, Monitor and Evaluate

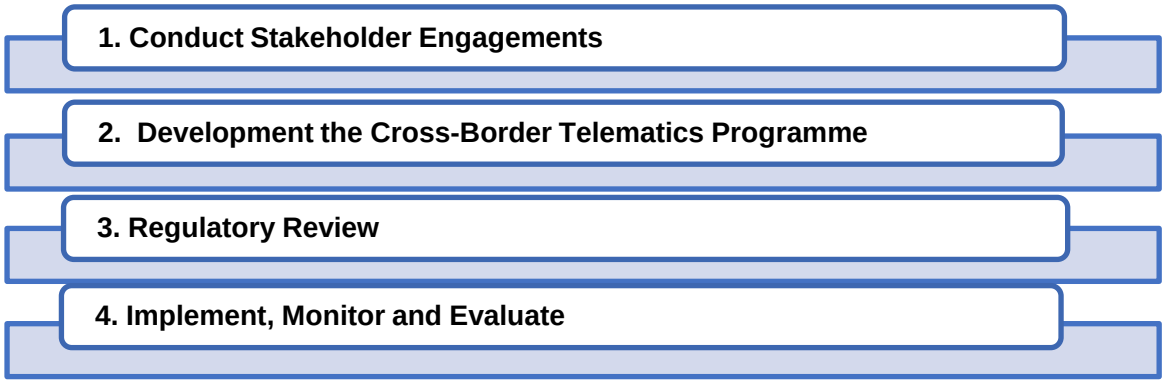
Once green lanes have been constructed, this reform can be implemented. The proposal is that a phased approach be adopted whereby this reform is piloted at one or two borders first to test for system failures, before expanding it to other borders. Continuous M&E should be conducted through-out the project lifecycle to optimise the benefits associated with this reform.

6.3.12 Implement a Cross-Border Telematics Programme

On-going developments in the SADC (e.g. MCBRTA and OCAS) should be supported by mandatory deployment or fitment of telematics in cross-border road transport vehicles to enable greater visibility and tracking of cross-border road transport vehicles along regional transport corridors. Compliant operators (those who installed telematics in their vehicles) will benefit from fewer stoppages along transport corridors.

The implementation of this reform poses several benefits, such as improved monitoring of cross-border road transport vehicles by transport regulators, enhanced safety and security and a reduction in delays along road transport corridors. This reform can be implemented as a stand-alone initiative although more benefits will be gained from integrating it with other on-going regional initiatives (e.g. MCBRTA & corridor performance monitoring system). Figure 31 shows the steps associated with implementing this reform.

Figure 31:Implement Cross-Border Telematics Programme



Source: Figure created for study

Step 1: Conduct Stakeholder Engagements

The initial step involves engaging interested parties (e.g. transport regulators, cross-border road transport operators, providers of ICT services, manufacturers of technologies) to inform them of the collective benefits associated with implementing this reform. During this phase, support should be obtained interest groups in embracing telematics as a standard practice in cross-border road transport operations, moving forward.

Step 2: Develop the Cross-Border Telematics Programme

Step 2 involves the development of a cross-border telematics programme that will use used by operators who conduct cross-border operations for reward in the SADC. The harmonisation of ICT infrastructure / systems is a pre-condition to success. Prior to developing the telematics programme, SADC MS should agree to and acquire ICT software / systems that support the implementation of the cross-border telematics programme. This will enable the sharing of relevant cross-border data between corridor interest groups.

Step 3: Regulatory Review

The step involves a review of regulatory instruments (e.g. cross-border legislation) to legalise the use of telematics in the vehicles of cross-border road transport operations.

Step 4: Implement, Monitor and Evaluate

Step 4 involves actual implementation of telematics programme, followed up by continuous M&E to identify glitches and to refine the telematics programme.

7. ACTION PLANS TO IMPLEMENT RECOMMENDED REFORMS

7.1 Introduction

Action plans for each of the reforms proposed in the preceding chapter are presented in tabular format below. The tables underneath (section 6.2) illustrate the envisioned impact(s) of reforms, while also identifying role-players who should drive the implementation process.

Moving forward, South Africa (through the C-BRTA) should engage with national role-players, notably the DOT, the Dti, DHA) to obtain local support and buy-in, where after they should collectively approach regional stakeholders for buy-in. Although SADC countries support on-going regional initiatives, the challenge is that they do not always domesticate regional reforms at national (member state) level. This is where the real challenge lies – if the respective SADC MS does not amend legal frameworks and ratify them at Parliamentary level, the status quo (poor implementation of regional reforms) will remain.

7.2 Action Plans for Existing Reforms

Table 22: Prioritised Road Transport and Border Post Projects

Action Plan	Envisaged Impact	Responsibility
Implement Prioritised Road Transport and Border Post Projects outlined in the SADC RIDMP	➢ Improved cross-border road transport movements	Public sector role-players in SADC MS (e.g. Ministries of Transport)
	➢ Enhanced regional integration	DFI
	➢ Time and Cost savings for cross-border operators	Development assistance (donor agencies)
	➢ Just-in-time deliveries and quicker turnaround times	Private Sector
	➢ Improved economic growth and development	Developing countries (China, India)

Source: Table created for study

Table 23: Regional Legislature (Parliament)

Action Plan	Envisaged Impact	Responsibility
Implement a Regional Legislature	➢ Improved governance, transparency and accountability at MS level	SADC MS
	➢ Improved delivery of regional commitments	CMI
	➢ Reduction in corrupt activities	SADC Secretariat
		SADC-PF

Source: Table created for study

Table 24: Corridor Performance Monitoring Systems(s)

Action Plan	Envisaged Impact	Responsibility
Implement Corridor Performance Monitoring System(s) along prioritised corridors in the SADC	➢ Availability of real-time data on traffic flows	CMI
	➢ Improved traffic flows along road transport corridors	Private Sector
	➢ Evidence-based transport policy-making public sector bodies in the SADC	SADC MS
	➢ Improved decision-making by public sector bodies and cross-border operators	
	➢ Improved facilitation of trade and transport flows along regional road transport corridors	
	➢ Improved transport competitiveness	

Source: Table created for study

Table 25: Truck Stops along Strategic Transport Corridors in the SADC

Action Plan	Envisaged Impact	Responsibility
CMI's should implement truck stops along strategic transport corridors that traverse the region	➢ Reduction in driver fatigue	CMI
	➢ Improved safety along regional transport corridors	Private Sector
	➢ Boost in local economics due to a continuous stream of travellers passing through	SADC MS
	➢ Reduction in crime/fraudulent activities along road transport corridors	
	➢ Protection of drivers against HIV/AIDS and sexually transmitted infections	

Source: Table created for study

Table 26: Quality Regulation

Action Plan	Envisaged Impact	Responsibility
Implement quality regulation in the SADC	➢ Harmonisation of legal instruments	Tripartite MS
	➢ Improved cross-border road transport movements	
	➢ Improved decision-making processes	
	➢ Intensification of regional integration efforts	
	➢ Creation of a single regional road freight market	

Source: Table created for study

Table 27: Risk-based Regulatory Systems in the SADC

Action Plan	Envisaged Impact	Responsibility
Implement risk-based regulatory systems in the SADC	➢ Decrease in delays and transit times	Ministries of Transport
	➢ Optimisation of resources	Road transport regulators
	➢ High productivity	Law enforcement agencies
	➢ Improved compliance by cross-border road transport operators	
	➢ Reduction in bribery and corrupt activities along corridors	

Source: Table created for study

Table 28: Joint Law Enforcement Inspections

Action Plan	Envisaged Impact	Responsibility
Implement joint law enforcement inspections along transport corridors in the SADC	➢ Reduction in delays and transit times	Ministries of Transport in SADC MS
	➢ Reduction in duplicated law enforcement processes along regional road transport corridors	Road transport regulators
	➢ Optimisation of resources	Law enforcement authorities
	➢ Improved productivity	
	➢ Reduction in the cost of doing business	

Source: Table created for study

Table 29: Linking Africa Plan

Action Plan	Envisaged Impact	Responsibility
Implement Linking Africa Plan Programmes in the SADC	➢ Improved cross-border road transport movements, trade flows and regional integration	Public sector role-players in SADC MS (e.g. Ministries of Transport and Trade)
	➢ Improved corridor performance	Regulatory authorities
	➢ Time and Cost savings for cross-border road border operators	Local authorities
	➢ Improved economic growth and development	Development assistance (donor agencies)
	➢ Improved regional competitiveness	DFI
	➢	Private Sector

Source: Table created for study

Table 30: Preferred Trader Programme

Action Plan	Envisaged Impact	Responsibility
Implement Preferred Trader Programme in the SADC	➢ Improved cross-border road transport movements and trade flows	Customs in SADC MS
	➢ Time and cost savings for cross-border operators	Departments of Trade in SADC MS
	➢ Improved economic growth and development	

Source: Table created for study

Table 31: Smart Corridors Initiative

Action Plan	Envisaged Impact	Responsibility
Implement the Smart Corridors Initiative in the SADC	➢ Improved operator compliance, safety and security	Public sector role-players in SADC MS (e.g. Ministries of Transport)
	➢ Improved corridor performance	
	➢ Improved safety and security along transport corridors	
	➢ Improved corridor performance	
	➢ Time and Cost savings for cross-border operators	
	➢ Improved economic growth and development	

Source: Table created for study

Table 32: Freight Pre-Clearance Programme(s)

Action Plan	Envisaged Impact	Responsibility
Implement Freight Pre-clearance programme(s)	➢ Improved cross-border road transport movements and trade flows	SADC MS (e.g. Ministries of Transport)
	➢ Reduction in congesting, delays and transit time along transport corridors	Customs in SADC MS
	➢ Time and Cost savings for cross-border operators	
	➢ Just-in-time deliveries and quicker turnaround times	
	➢ Improved economic growth and development	

Source: Table created for study

7.3 Action Plans for New Reforms

Table 33: Expand the Role of the Cross Border Road Transport Regulators-Forum

Action Plan	Envisaged Impact	Responsibility
Expand the role of the CBRT-RF	➢ Greater coordination and more effective monitoring of regional programmes	Public sector role-players in SADC MS (e.g. Ministries of Transport)
	➢ Accelerated implementation of regional programmes	Regulatory authorities in SADC MS
	➢ Reduction in corridor constraints	
	➢ Improved harmonisation and facilitation of cross-border operations	

Source: Table created for study

Table 34: Development of Funding Frameworks by SADC MS

Action Plan	Envisaged Impact	Responsibility
SADC MS should develop and implement funding frameworks	➢ Enhanced budget planning processes	SADC MS
	➢ Increased private sector participation in infrastructure development	Ministries of Finance in SADC MS
	➢ Infusion of private sector expertise and skills transfer	Ministries of Transport in SADC MS
	➢ Improved delivery on strategic infrastructure projects	

Source: Table created for study

Table 35: Establish a Regional Monitoring and Evaluating Body

Action Plan	Envisaged Impact	Responsibility
Implement a Regional Monitoring and Evaluation Body	➢ Timeous delivery of strategic regional projects through continuous monitoring and correction	SADC MS
	➢ Availability of credible, results-based information	
	➢ Improved decision-making processes	
	➢ Existence of a robust basis / platform for raising funds	

Source: Table created for study

Table 36: Establish Dedicated Cross-Border Ranking Facilities in all SADC MS

Action Plan	Envisaged Impact	Responsibility
Establish Dedicated Cross-Border Ranking Facilities in SADC MS	➢ Provision of quality, safe and accessible ranking facilities, including storage, ablution, booking offices and adequate lightning	Ministries of Transport in SADC MS
	➢ Provision of secure off-street loading holding facilities for cross-border vehicles	Road transport Regulators
	➢ Timeous departure of cross-border vehicles	Provincial and Local authorities
	➢ Elimination of on-street ranking for cross-border services	Private Sector

Source: Table created for study

Table 37: Re-engineer Permit Issuing Processes and Systems in the SADC

Action Plan	Envisaged Impact	Responsibility
Regulatory Authorities in SADC MS should re-engineer regulatory procedures and permit issuing systems	➢ Improved regulation of cross-border road transport movements	Regulatory authorities in SDC MS
	➢ Improved harmonisation of the regulatory environment	
	➢ Increased value-add to cross-border road transport operators	
	➢ Improved competitiveness of the cross-border road transport industry	

Source: Table created for study

Table 38: Implement the International Road Transport System

Action Plan	Envisaged Impact	Responsibility
Implement the International Road Transport System	➢ Improved compliance by cross-border road transport operators	Ministries of Transport in SADC MS
	➢ Improved cross-border road transport movements and trade flows	Regulatory authorities in SADC MS
	➢ Time and Cost savings for cross-border road transport operators	
	➢ Improved economic growth and development	

Source: Table created for study

Table 39: Implement a Corridor Patrol Programme

Action Plan	Envisaged Impact	Responsibility
Implement Corridor Patrol Programme	➢ Reduction in criminal activities along transport corridors	Ministries of Transport in SADC MS
	➢ Improved safety and security along transport corridors.	Ministries of Police in SADC MS
		Regulatory authorities in SDC MS

Source: Table created for study

Table 40: Strengthen the Mandate of Institutions Responsible for Transport and Trade Facilitation

Action Plan	Envisaged Impact	Responsibility
Strengthen the capacity . mandate of institutions responsible for transport and trade facilitation	➢ Professional cross-border road transport sector	Ministries of Transport in SADC MS
	➢ Improved compliance by cross-border operators	Regulatory authorities in SADC MS
	➢ Improved safety and security along transport corridors	Private Sector

Source: Table created for study

Table 41: Professionalise the Cross-Border Road Transport Industry

Action Plan	Envisaged Impact	Responsibility
Professionalise the Cross-border road transport industry	➢ Improved compliance by cross-border road transport operators / drivers	SADC MS (Ministries of Transport)
	➢ Improved road safety	Regulatory authorities in SADC MS
	➢ Reduction in time spend at border posts	Cross-border road transport operators
	➢ Reduction in xenophobic attacks	

Source: Table created for study

Table 42: Pre-Clearance of Cross-Border Road Transport Passengers

Action Plan	Envisaged Impact	Responsibility
Pre-clearance of cross-border road transport passengers	➢ Reduction in delays at border posts	Immigration authorities in SADC MS
	➢ Improved cross-border road transport movements	
	➢ Stimulated economic activity	

Source: Table created for study

Table 43: Implement Green lanes for Compliant and Pre-Cleared Vehicles

Action Plan	Envisaged Impact	Responsibility
Implement Green lanes for compliant and pre-cleared vehicles at border posts	➢ Reduction in congestion at border posts	Border Management institutions
	➢ Time and Cost savings for cross-border operators	
	➢ Improved cross-border road transport movements	
	➢ Enhanced economic growth	

Source: Table created for study

Table 44: Implement a Cross-Border Telematics Programme

Action Plan	Envisaged Impact	Responsibility
Implement the Cross-Border Telematics Programme	➢ Improved visibility of cross-border operations	Ministries of Transport in SADC MS
	➢ Improved law enforcement and compliance and safety	Regulatory authorities in SADC MS
	➢ Smart law enforcement operations	Private Sector
	➢ Time and Cost savings for cross-border operators	

Source: Table created for study

7.4 Role of Cross-Border Road Transport Regulatory Authorities in Implementing Reforms

The recommended reforms outlined in this ASCBOR has a regional character. This implies the responsibility for their implementation vests with several regional role-players, especially cross-border road transport regulatory authorities and Ministries of Transport in SADC MS. The successful implementation of report reforms requires cooperation and coordination by national and regional stakeholders. Individual effort by a few parties (role-players in a few SADC countries) will limit the impact of reforms. As one of many players in the cross-border transport environment, the C-BRTA supports the implementation of existing reforms.

The recommended new reforms should be presented to national and regional stakeholders for buy-in and adoption before they can be implemented. Cross-border road transport regulatory authorities, including the C-BRTA, should lobby support and play an advocacy role for the implementation of programmes that reside in other line ministries, notably trade and customs. Since the execution of most infrastructure reforms are large-scale and long-term in nature, the importance of obtaining commitment that transcends political parties and presidents cannot be over-emphasised. Trust should be built between SADC leaders on the win-win benefits or existing and new reforms.

In addition to political will, SADC MS should secure adequate funding to implement on-going and new reforms. Moving forward, cross-border road transport regulatory authorities should engage relevant line ministries, development partners and financial institutions for funding. Furthermore, SADC MS should mobilise stakeholders within their jurisdiction to act as implementation agents. In South Africa, the C-BRTA is well positioned to play this role, either

solely, or in concert with other corridor role-players. At regional level, coordination will be required from a regional structure (e.g. proposed Monitoring and Evaluation body) to ensure there is a common purpose and convergence on the approach that will be taken to implement agreed reforms.

The full implementation of both on-going and new reforms will transform the cross-border landscape and go a long way towards ensuring that cross-border road transport plays its strategic role with respect to linking Africa, enhancing cross-border trade, economic development and regional integration which are key aspirations of the SADC PTCM and key regional agreements, including the Tripartite Free Trade Agreement and the African Continental Free Trade Agreement.

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