CROSS-BORDER
ROAD TRANSPORT AGENCY

ANNUAL STATE OF CROSS-BORDER OPERATIONS REPORT

2020-21

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ACRONYMS

Abbreviation	Meaning
ADA	Austrian Development Agency
ADB	African Development Bank
AEO	Authorised Economic Operator
AFDB	African Finance Development Bank
AICD	Africa Infrastucture Coutry Diagnostic
ASCBOR	Annual State of Cross-Border Operations Report
ASEAN	Association of Southeast Asian Nations
AU	Africa Union
AUC	Africa Union Commission
BLO	Border Liaison Office
BBR	Beitbridge Railways Limited
BR	Botswana Railways
C-BRTA	Cross-Border Road Transport Agency
CBRT-RF	Cross-Border Road Transport Regulators Forum
CBTA	Cross-Border Transport Agreement
CET	Common External Tariff
CMC	Corridor Management Committee
CMI	Corridor Management Institution
COMESA	Common Market for Eastern and Southern Africa
CPMS	Corridor Performance Monitoring System
DBSA	Development Bank Southern Africa
DOT	Department of Transport
EAC	East African Community
EU	European Unio
EWEC	East West Economic Corridor
FESARTA	Federation of East and Southern African Road Transport Associations
FRETA	Freight Transport Association
GDP	Gross Domestic Product
GMC	Grupo Mercado Comun (Common Market Group)
GMS	Greater Mekong Sub-region
GMS FRETA	Greater Mekong Sub-region Freight Transport Association
GVM	Gross Vehicle Mass
ICT	Information and Communications Technology
IT	Information Technology
ITS	Intelligent Transport Systems
JICA	Japan International Cooperation Agency
JRMC	Joint Route Management Committee
KPI	Key Performance Indicator
Lao PDR	Lao People's Democtratic Republic
LAP	Linking Africa Plan
MCBRTA	Multilateral Cross-Border Road Transport Agreement
M&E	Monitoring and Evaluation
MoU	Memorandum of Understanding
MP	Mercosur Parliament
MP	Members of Parliament
MS	Member State(s)
MTC	Mercosur Trade Commission
NEPAD	New Partnership for Africa's Development
NHO	National Health Organisation
NRZ	National Railways of Zimbabwe
NTB	Non-Tariff Barrier
NTFC	National Transport Facilitation Committee
NSC Aft	North South Corridor Aid for Trade
NSC	North South Corridor

NSCMI	North-South Corridor Management Institution
NSC MoU	North South Corridor Memorandum of Understanding
NTB	Non-Tariff Barrier
NTFC	National Transport Facilitation Forum
NSC	North South Corridor
NSEC	North South Economic Corridor
NTB	Non-Tariff Barrier
OSBP	One Stop Border Post
PATROL	Partnership against Transnational Crime through Organised Law Enforcement
PICI	Presidential Infrastructure Champion Initiative
PIDA	Programme for Infrastructure Development Africa
PIDA-PAP	PIDA Priority Action Plan
PoE	Port of Entry
PPP	Public- Private Partnership
PRC	People's Republic of China
PrDP	Professional Driving Permit
PTCM	Protocol on Transport, Communications and Meteorology
REC	Regional Economic Community
RIDMP	Regional Infrastructure Development Master Plan
RTRN	Regional Trunk Road Network
RUC	Road User Charges
SADC	Southern African Development Community
SADC-PF	Southern African Development Community Parliamentary Forum
SAFE	Framework of Statistics to secure and facilitate international trade
SARDC	Southern African Research and Development Centre
SEC	Southern Economic Corridor
SMART	Smart, Mobility, Automated, Real-time Traffic Management
SNCC	Société Nationale des Chemins de fer du Congo
SP	Service Provider
SR	Swaziland Railways
STF	Sub-regional Transport Forum
TA	Treaty of Asuncion
TEU	Twenty-foot equivalent unit
TKCS	Trans Kalahari Corridor Secretariat
TLS	Traffic Light System
ToR	Terms of Reference
TSS	Transport Sector Strategy
TTF	Trade and Transport Facilitation
UNECA	United Nations Economic Commission for Africa
VPIC	Virtual PIDA Information Centre
TKC	Trans Kalahari Corridor
TKCMS	Trans Kalahari Corridor Management Secretariat
TLS	Traffic Light System
TSS	Transport Sector Strategy
TTT	Technical Task Team
TTTFP	Tripartite Transport an Transit Facilitation Programme
UNECA	United Nations Economic Commission for Africa
UN-OHRLLS	United National Office of the High Representative for the Least Developed Land-locked Developin Countries and Small Island States
VLM	Vehicle Load Management
ZRL	Zambia Railways Limited

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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 or the Agency) 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 Southern African Development Community (SADC), who are responsible for cross-border road transport regulation, facilitation and law enforcement. Valuable material was received from regional Secretariats such as the Common Market for Eastern and Southern Africa (COMESA) and the Southern African Development Community (SADC), Corridor Management Institutions (CMI), notably the Walvis Bay Corridor Management Group, as well as cross-border road transport operators and operator's associations.

EXECUTIVE SUMMARY

The Annual State of Cross-Border Operations Report (ASCBOR) is compiled annually by the Cross-Border Road Transport Agency (C-BRTA or the Agency) to advise the Minister of Transport, the Department of Transport (DoT), fellow regulatory and law enforcement authorities, CMIs, other national and regional stakeholders and cross-border road transport operators of major challenges, bottlenecks and developments that affect cross-border road transport operations on regional road transport corridors. This report proposes solutions that should be considered for implementation by regional decision-makers as they aim to reduce and / or eliminate the challenges that currently impede the seamless movement of cross-border road traffic movements.

This is the eighth ASCBOR produced to date and this report focuses on the Southern Africa Development Community (SADC). The report provides useful information and solutions to assist public-sector bodies operating in the trade and transport environments to make informed policy and regulatory decisions with respect to cross-border road transport and resolution of constraints. At the same time, this report gives cross-border road transport operators a better understanding of the nature and context of corridor constraints which severely impact cross-border road transport operations in the region. The report also tracks progress made on the implementation of past ASCBOR recommendations to monitor the impact of the previous reports.

Road transport accounts for most surface shipments in the region. Eighteen major road transport corridors 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:

- 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 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 operators;
- Existence of various official and unofficial road blocks and inspection points along regional road transport corridors that increase the occurrence of corrupt practices; and
- Uncoordinated implementation of measures aimed at containing the spread of the COVID-19 virus.

Infrastructure inefficiencies culminate in poor corridor performance, made apparent by congestion, delays, long journey and trip turnaround times, reduced safety and high logistics costs. These constraints impact negatively on cross-border trade and traffic flows and undermine regional growth and development.

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 dropped from around 15 % in 2018 to 14,4% in 2019. (https://www.logupdateafrica.com/afreximbank-trade-report-says-exports-to-asia-up-by-3079-while-eus-share-dips--trade-e-commerce)

The effects of the COVID-19 pandemic have not spared the SADC region. Like in all other parts of the world, economies of SADC MS have been impacted by the measures to contain the virus that have limited the movement of people and goods across borders. The introduction of special measures (e.g. closure of several border posts, skeleton staff reporting for duty and mandatory health checks for cross-border crew) has had negative effects on trade facilitation in the region. This is witnessed in a significant decrease in cross-border road traffic flows since April 2020.

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 to facilitate the seamless movement of cross-border road passenger and road freight movements. Despite its inherent advantages, no CMI in the SADC region 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 development towards implementing formal corridor performance monitoring systems is witnessed in a joint initiative between the C-BRTA and the Trans-Kalahari Corridor Secretariat (TKCS) that are working in concert in developing a Cross-Border Flow Calculator to measure transit time and identify key bottlenecks along strategic road transport corridors in the region. Both institutions also piloted Corridor Performance Indicator (CPI) monitoring on the TKC during 2019-20.

To address the challenges in the cross-border road transport environment, MS and several structures in the SADC region and the continent at large have approved various infrastructure projects or programmes. Examples of the said initiatives include:

Continental level: The Programme for Infrastructure Development Africa, Presidential Infrastructure Champion Initiative and the Move Africa Initiative;

Tripartite level: The Tripartite Transport and Transit Facilitation Programme and Multilateral Cross-Border Road Transport Agreement; and

SADC level: The Regional Infrastructure Development Masterplan that prioritises key infrastructure programmes for each transport sub-sector.

At regional level, the SADC has implemented an infrastructure web portal that provides updated information on the status of regional infrastructure projects by sector, countries, current stage and reference plan. This online web portal reveals that many projects have not realised much progress, owing to several reasons, which are discussed in later sections of this report. To date, only a few projects have reached the project completion phase, with most projects still in the planning (pre-feasibility and feasibility) phases.

The 2020 / 21 ASCBOR acknowledges on-going reforms since all initiatives aim to eliminate, or at least minimise infrastructure challenges that undermine efficient cross-border operations. A benchmarking review of corridor reforms implemented in the Greater Mekong and MERCOSUR regions in South East Asia and South America also provided valuable insight into the formulation of new study recommendations.

Against this background, the 2020 / 21 ASCBOR proposes the following recommendations (reforms) to improve the performance of road transport corridors in the SADC:

- Implement Prioritised Regional Road Transport Projects;
- Implement One-Stop Border Posts;
- Implement Regional Corridor Performance Monitoring Systems;
- Implement Cross-Border Telematics;
- Establish a Regional Monitoring and Evaluation Body;
- Expand the role of the CBRT-RF;
- Re-engineer Permit Issuing Processes and Systems;
- Establish Dedicated Cross-Border Ranking Facilities;
- Implement Risk-based regulatory systems;
- Establish a Regional Parliament;
- Implement Single Stop / Joint Law Enforcement Inspections;
- Transform Transport Corridors into SMART corridors;
- Establish Regional Trade and Transport Working Groups; and
- Establish a Regional Law Enforcement Training Academy.

It is foreseen that the full implementation of the above reforms will go a long way in closing gaps in the 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 for 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 in that 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 elevate the important role that cross-border road transport play with respect to linking Africa, which is a key aspiration of 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 Annual State of Cross-Border Operations Report (ASCBOR) is compiled annually by the Cross-Border Road Transport Agency (C-BRTA or the Agency), with a view to advise the Minister of Transport, the Department of Transport (DOT), fellow regulatory and law enforcement authorities, Corridor Management Institutions (CMI), as well as other national and regional stakeholders and structures on the state of cross-border road transport operators in the Southern African Development Community (SADC).

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 the infrastructure challenges facing the sector that will guide the design of potential improvement measures (reforms).

At the same time, it is envisaged that by updating national and regional stakeholders with on-going infrastructure developments in the SADC, they will be able to incorporate key elements of regional programmes into the design and implementation of national programmes. In doing so, all corridor stakeholders will fulfil their rightful roles towards achieving key objectives of regional protocols (e.g. SADC Protocol on Transport, Communications and Meteorology), while also supporting the fulfilment of continental aspirations (e.g. establishment of an African continental free trade market).

Roads affect all aspects of development in the SADC. Businesses depend on efficient roads for transporting their goods, industry relies on roads for delivery of equipment, and people require roads to travel between various locations. Consequently, it comes as no surprise that cross-border road transport is the dominant mode of transport in the SADC (and Africa), accounting for over 80% total freight and passenger traffic movements, moving along regional road transport corridors (CBRTA, 2017).

Road transport corridors are particularly important to SADC as six countries in the region - Botswana, Lesotho, Malawi, Swaziland, Zambia and Zimbabwe - are landlocked with no direct access to sea-borne trade and major foreign markets. Landlocked countries rely on coastal countries for the greater share of their trade, thus making regional road transport corridors important in linking countries in the interior to Africa as well as to foreign markets via the main ports in South Africa, Mozambique, Angola and Namibia (Chibira, E & Mdlankomo, B., 2015: 658).

Despite the significance of the cross-border road transport industry, this sector faces several hard and soft infrastructure 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 levels.

This is the eighth report since the successful completion of the first report in 2014, two that were finalised in 2015 and one report per annum between 2016 and 2020. 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. Then, the 2017 and 2018 reports focused on selected transport corridors in the Tripartite. The past two reports (2019 and 2020) focus on key road transport corridors that traverse the sixteen countries that constitute the SADC.

Previous 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.

The 2020 ASCBOR will also be shared with the above-mentioned stakeholders. It is anticipated that these stakeholders will, through adopting a partnership approach, tailor-made the reforms and actions plans presented in this report to suit the specific environment at the time of implementation. By implementing report reforms, all parties will play a critical role towards improving the unimpeded flow of cross-border road transport movements and reducing inefficiencies that increase the cost of doing business for cross-border road transport operators in the SADC. It is envisaged that ultimately this will create a road transport industry that is capable of effectively linking countries in the region, thereby enhancing regional trade and development.

1.2 Problem statement

This ASCBOR responds to several challenges facing the cross-border road transport environment. The SADC region, like all other African regions, is largely reliant on road transport for the conveyance of goods, passengers and services. Road transport carries the bulk of regional and continental traffic, with the other transport modes - sea, inland waterways, railways and pipelines – carrying the remainder. Despite the significance of road transport industry, the sector still faces a plethora of challenges, which must be addressed, and that includes:

- Missing corridor links along sections of strategic road transport corridors such as the North-South Corridor, hindering connectivity and increasing distances for cross-border operators and traders;
- Poorly maintained regional road networks that affect transport efficiency, increase transit times and the cost of doing business and affects the competitiveness of goods traded in the region;
- Weak regulatory institutions often characterized 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 increase 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, resulting in administrative and operational constraints, as well as high cost of compliance for cross-border road transport operators;
- Conflicts in corridors targeted at foreign drivers and increased corridor criminal activities such as bus robberies; and
- Uncoordinated implementation of measures aimed at containing the spread of the Covid-19 virus.

The challenges listed above result in lengthy delays for cross-border road transport operators, excessive border crossing times, poor road safety, longer journey times, unpredictable transit times, high transportation costs and poor service delivery. Since transport corridors stretch across national territories, national and regional role-players should join hands in seeking collective solutions to the above challenges. This report provides a package of solutions that aim to address, or at least minimise corridor inefficiencies that affect cross-border trade and road transport movements in the SADC.

1.3 Purpose of Report

The purpose of the 2020 ASCBOR report is to:

- Update stakeholders on progress achieved with respect to the implementation of interventions (reforms) recommended in previous reports (2017, 2018, 2019 and 2020 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 by identifying corridor challenges that undermine corridor performance and impede the seamless flow of cross-border road traffic movements in the SADC;
- Identify and track the progress of existing developments (projects and programmes) being implemented in the SADC to improve the efficiency of cross-border road transport operations;
- Provide statistics on cross-border volumes and values of goods passing through South African commercial border posts within the focus area;

- Report on the state of operator compliance along the NSC and the TKC;
- Report on lessons learned from implementing best practices along strategic road corridors in various parts of the world; and
- Propose suitable reforms (interventions) and actions plans that should be considered by relevant authorities in the SADC for implementation to address cross-border challenges that exist along strategic road transport corridors in the region.

1.4 Focus of the Report

According to the SADC Transport Sector Plan (TSP) (2012:40), eighteen transport corridors traverse the SADC, linking the six land-locked countries with regional and foreign markets via the main seaports in Angola, Namibia, South Africa and Mozambique. These corridors are classified as either high, medium or low priority corridors. The 2020 ASCBOR focuses on one high priority corridor and one medium-priority corridor, and they are:

- North-South Corridor (high priority); and
- Trans Kalahari corridor (medium-priority).

The rationale for focusing on the North-South Corridor (NSC) and the Trans-Kalahari Corridor (TKC) was informed by the significance of both corridors in terms of cross-border traffic volumes and flow dynamics. This implies that the NSC and the TKC will require on-going investments to improve service levels and increase capacity.

1.5 Report Methodology

This report was compiled 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 Corridor Management Institutions (e.g. Walvis Bay Corridor Group);
- From Ports authorities in the region (e.g. Namport in Walvis Bay);
- From the SADC Secretariat;
- From Regional bodies such as the Federation of East and Southern Africa Road Transport Association (FESARTA);
- 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, 2019 and 2020 ASCBOR.

- Chapter 2 focuses on the general state of cross-border operations in the SADC, with emphasis on operational challenges and bottlenecks experienced by cross-border operators along regional road transport corridors and road transport developments unfolding at regional (SADC), Tripartite and continental levels.

- Chapter 3 provides a synopsis of the state of operations along the NSC and the TKC between origin and destination points. Specific emphasis is made on infrastructure components and corridor performance along both corridors.

- Chapter 4 discusses trade volumes and values of goods passing through South African commercial border posts in the focus area, while also assessing the state of operator compliance along the NSC and the TKC.

- Chapter 5 captures key findings of the benchmarking review with an objective to determine suitable corridor interventions for the SADC.

- Chapter 6 outlines ongoing and recommended reforms that the SADC can implement to improve corridor efficiency, with a clear distinction between new and existing reforms.

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 4 below indicate the progress achieved in the implementation of the recommendations outlined in the 2016/17, 2017/18, 2018/19 and 2019/20 ASCBORs:

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

Recommendation	Action Plan	Envisaged impact	Responsibility	Progress as at March 2021
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 CBRT-RF 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	• SADC MS • SADC PPDF	• Tunduma / Nakonde border is operating as an OSBP. • Construction of OSBP facilities is nearing completion at the Kazungula border posts.

Recommendation	Action Plan	Envisaged impact	Responsibility	Progress as at March 2021
		• 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.		• 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.

Recommendation	Action Plan	Envisaged impact	Responsibility	Progress as at March 2021
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 and is constantly being updated to monitor the performance of several corridors in the Eastern and Southern African regions. • SADC Secretariat has implemented an online infrastructure web portal, that displays project information on strategic regional infrastructure projects in all infrastructure sub-fields. Dashboards allows the filtering and visualisation of regional infrastructure projects by sector, countries, current stage and reference plan.

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 2021
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 roads 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	• Tripartite MS	• Tunduma/Nakonde border operating as OSBP.

Recommendation	Action Plan	Envisaged impact	Responsibility	Progress as at March 2021
		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.		• Construction of OSBP facilities is nearing completion at the Kazungula border post. • 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 2021
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 nearing completion at the Kazungula border post.

Recommendation	Action Plan	Envisaged impact	Responsibility	Progress as at March 2021
		• 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

Recommendation	Action Plan	Envisaged impact	Responsibility	Progress as at March 2021
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 is 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

Recommendation	Action Plan	Envisaged impact	Responsibility	Progress as at March 2021
Capacitate regulatory authorities and implement ICT 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

Table 4:Tracking Progress with respect to Implementation of 2019 / 20 ASCBOR Reforms

Recommendation	Action Plan	Envisaged impact	Responsibility	Progress as at March 2021
Implement Prioritised Road Transport and Border Post Projects	Tripartite MS should 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 are ongoing for some of the projects. • Engagements between public and private sector stakeholders ongoing.
Establish Regional Legislature	Tripartite MS should 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.
Corridor Performance Monitoring Systems	CMI's should implement corridor performance monitoring system(s) along prioritised corridors in the SADC.	• Availability of real-time data on traffic flows; • Improved traffic flows along road transport corridors; • Improved decision-making by public-sector bodies in the SADC.	• CMI. • Private Sector. • SADC MS.	• The SADC Secretariat is in the process of initiating a pilot programme for the Corridor Trip Monitoring System. • The C-BRTA in collaboration with the TKCS is developing a Cross-Border Flow Calculator to measure transit time and identify key bottlenecks along regional road transport corridors. • Transit Time measurement conducted at pilot level for some key border posts along the TKC.
Establish Truck Stops along strategic transport corridors in the SADC	CMI's should implement truck stops along strategic transport corridors that traverse the region.	• Reduction in driver fatigue; • Improved safety along regional transport corridors; • Boost in local economics due to a continuous stream of travellers passing through; • Reduction in crime / fraudulent activities along road transport corridors. •	• CMI. • Private Sector. • SADC MS.	• 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 stakeholders are on-going to promote the truck stop initiative.

Recommendation	Action Plan	Envisaged impact	Responsibility	Progress as at March 2021
Implement aligned Risk-based regulatory systems in the SADC	Road transport regulatory authorities should implement risk-based regulatory systems in the SADC.	• Decrease in delays and transit times; • Improved compliance by cross-border road transport operators; • Reduction in bribery and corrupt activities along corridors.	• Ministries of Transport. • Road 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.
Implement Quality Regulation	MS should accelerate domestication of the MCBRTA into their domestic policies and legislations on road transport. This will pave the way for the progressive liberalisation of road transport markets.	• Harmonisation of legal instruments; • Improved cross-border road transport movements; • Improved decision-making processes; • Intensification of regional integration efforts; • Creation of a single regional road freight market.	• 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 by MS. • Some MS are already reviewing their domestic transport policies / legislations /regulations / systems to align it to the MCBRTA and standards. • Some MS are already developing regulatory tools and systems for quality regulation.
Implement Joint Law Enforcement Inspections	Regulatory authorities in the SADC should eliminate silo operations and implement joint law enforcement inspections along transport corridors in the region.	• Reduction in delays and transit times; • Reduction in duplicated law enforcement processes along regional road transport corridors; • Optimisation of resources;	• Ministries of Transport in SADC MS. • Road transport regulators. • Law enforcement authorities.	• Domestic and regional consultations are on-going. • The CBRT-RF technical work-group developed a strategy for mandatory joint law enforcement inspections. • The CBRT-RF deliberating on the strategy for the joint operations.

Recommendation	Action Plan	Envisaged impact	Responsibility	Progress as at March 2021
		• Improved productivity; • Reduction in the cost of doing business.		
Implement the Linking Africa Plan	The Linking Africa Plan must be elevated to the AUC responsible for transport, trade and infrastructure. MS must coordinate and align implementation of the Linking Africa Plan. Role-players should implement Linking Africa Plan Programmes in the SADC.	• Improved cross-border road transport movements, trade flows and regional integration; • Improved corridor performance; • Time and Cost savings for cross-border road border operators; • Improved economic growth and development; • Improved regional competitiveness.	• Public sector role-players in SADC MS (e.g. Ministries of Transport and Trade). • Regulatory authorities. • Local authorities. • Development assistance (donor agencies). • DFI. • Private Sector.	• Domestic and regional consultations are on-going targeted at lobbying stakeholders to start implementing LAP programmes. • Engagements with the African Union commissioner conducted. • Engagements with development partners and financial institutions ongoing.
Implement the Preferred Trader Programme	Prioritised public-sector bodies should implement the Preferred Trader Programme (also referred to by some MS as the AEO programme). The Preferred Trader Programme should be linked with other risk-based regulatory systems (OCAS) for road transport.	• Improved cross-border road transport movements and trade flows; • Time and cost savings for cross-border operators; • Improved economic growth and development.	• Customs in SADC MS. • Departments of Trade in SADC MS.	• The platform for implementing the AEO programme developed in some MS. • Some countries are already implementing the AEO programme, whilst others are still finalising the development phase. • Engagements with departments/ agencies, responsible for regulation of road transport is on-going to consider integration with other road transport risk-based regulatory systems (OCAS)
Implement the SMART corridors initiative	Public-sector role-players should implement the Smart Corridors Initiative in the SADC.	• Improved operator compliance, safety and security; • Improved corridor performance; • Improved safety and security along transport corridors; • Improved corridor performance; • Time and Cost savings for cross-border operators.	• Public sector role-players in SADC MS (e.g. Ministries of Transport).	• Conceptualisation of the programme finalised. • Stakeholder consultations are on-going.

Recommendation	Action Plan	Envisaged impact	Responsibility	Progress as at March 2021
		• Improved economic growth and development.		
Implement Pre-clearance of freight	Relevant public-sector role-players should implement mandatory Freight Pre-clearance programme(s).	• Improved cross-border road transport movements and trade flows; • Reduction in congesting, delays and transit time along transport corridors; • Time and Cost savings for cross-border operators; • Just-in-time deliveries and quicker turnaround times; • Improved economic growth and development.	• SADC MS (e.g. Ministries of Transport). • Customs in SADC MS.	• Preclearance of cargo is done on a voluntary basis in many countries in the region.
Expand and support the role of the Cross-Border Road Transport Regulators Forum	The CBRT-RF must be empowered and adequately funded to carry out coordination and monitoring of programmes that are implemented by road transport regulatory authorities and law enforcement.	• Greater coordination and more effective monitoring of regional programmes; • Accelerated implementation of regional programmes; • Reduction in corridor constraints; • Improved harmonisation and facilitation of cross-border operations.	• Public sector role-players in SADC MS (e.g. Ministries of Transport). • Regulatory authorities in SADC MS.	• CBRT-RF was established in 2019. • CBRT-RF work plans developed and are being implemented.
Establish a Regional Monitoring and Evaluation (M&E) Body	SADC MS should implement a regional M&E body.	• Timeous delivery of strategic regional projects through continuous monitoring and correction; • Availability of credible, results-based information; • Improved decision-making processes; • Existence of a robust basis / platform for raising funds.	• SADC MS.	• No information was available at the time of completing the report

Recommendation	Action Plan	Envisaged impact	Responsibility	Progress as at March 2021
Establish dedicated cross-border ranking facilities in all SADC MS	Prioritised public-sector bodies in MS should establish dedicated cross-border ranking facilities.	• Provision of quality, safe and accessible ranking facilities, including storage, ablution, booking offices and adequate lightning; • Provision of secure off-street loading holding facilities for cross-border vehicles; • Timeous departure of cross-border vehicles; • Elimination of on-street ranking for cross-border services.	• Ministries of Transport in SADC MS. • Road transport Regulators. • Provincial and Local authorities. • Private Sector.	• Engagement is ongoing between stakeholders responsible for cross-border road transport operations and local authorities.
Re-engineer permit issuing processes and systems in the SADC	Regulatory Authorities in SADC MS should re-engineer regulatory procedures and permit issuing systems.	• Improved regulation of cross-border road transport movements; • Improved harmonisation of the regulatory environment • Increased value-add to cross-border road transport operators; • Improved competitiveness of the cross-border road transport industry.	• Regulatory authorities in SDC MS.	• A e-permit system is currently being developed by the C-BRTA. • System testing and refinement is on-going. • The e-permit system is scheduled for implementation during 2021.
Implement the International Road Transport System	Prioritised public-sector role-players should implement the International Road Transport System.	• Improved compliance by cross-border road transport operators; • Improved cross-border road transport movements and trade flows; • Time and Cost savings for cross-border road transport operators; • Improved economic growth and development.	• Ministries of Transport in SADC MS. • Regulatory authorities in SADC MS.	• Benchmarking of the TIR system conducted. • The TIR System awaits implementation in the SADC.
Implement a Corridor Patrol Programme	Prioritised public-sector role-players should implement a Corridor Patrol Programme	• Reduction in criminal activities along transport corridors;	• Ministries of Transport in SADC MS.	• The CBRT-RF lobbying MS to implement corridor patrols.

Recommendation	Action Plan	Envisaged impact	Responsibility	Progress as at March 2021
	to improve safety and security.	• Improved safety and security along transport corridors.	• Ministries of Police in SADC MS. • Regulatory authorities in SDC MS.	
Strengthen the mandate and capacity of institutions responsible for transport and trade facilitation	Prioritised public and private sector role-players should strengthen the capacity / mandate of institutions responsible for transport and trade facilitation.	• Professional cross-border road transport sector; • Improved compliance by cross-border operators; • Improved safety and security along transport corridors.	• Ministries of Transport in SADC MS. • Regulatory authorities in SADC MS. • Private Sector.	• Challenges affecting regulatory institutions in MS have been identified • Engagements are on-going at MS level.
Professionalise the cross-border road transport industry	Role-players in the public and private sector spheres should professionalise the cross-border road transport industry,	• Improved compliance by cross-border road transport operators / drivers; • Improved road safety; • Reduction in time spend at border posts; • Reduction in xenophobic attacks.	• SADC MS (Ministries of Transport). • Regulatory authorities in SADC MS. • Cross-border road transport operators.	• No information was available at the time of completing the report.
Pre-clearance of cross-border road transport passengers	Immigration authorities in SADC MS should pre-clear cross-border road transport passengers,	• Reduction in delays at border posts; • Improved cross-border road transport movements; • Stimulated economic activity.	• Immigration authorities in SADC MS.	• No information was available at the time of completing the report.
Implement green lanes for compliant and pre-cleared vehicles	Border Management Institutions should implement green lanes for compliant and pre-cleared vehicles at border posts.	• Reduction in congestion at border posts; • Time and Cost savings for cross-border operators; • Improved cross-border road transport movements; • Enhanced economic growth.	• Border Management Institutions.	• No information was available at the time of completing the report.
Implement a cross-border telematics programme	• Prioritised role-players in the public and private sectors should implement the Cross-	• Improved visibility of cross-border operations; • Improved law enforcement and compliance and safety;	• Ministries of Transport in SADC MS; • Regulatory authorities in SADC MS; • Private Sector.	• No information was available at the time of completing the report.

Recommendation	Action Plan	Envisaged impact	Responsibility	Progress as at March 2021
	Border Telematics Programme.	• Smart law enforcement operations; • Time and Cost savings for cross-border operators.		

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 the 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

The SADC region comprises of large countries with large economies, small, isolated economies, four island states and a mix of low to middle-income countries. Given the geographical landscape of the region, cross border road transport plays a pivotal role in facilitating trade between countries and in enhancing economic growth and development as well as socio-economic integration.

Although regional infrastructure development creates large markets (which support the regional integration agenda), the cross-border road transport industry continues to face several infrastructure and operational challenges. Infrastructure inefficiencies include hard infrastructure constraints, including poorly maintained road sections and missing links along strategic regional road transport corridors. Regulatory fragmentation, duplication of law enforcement procedures and a lack of low-cost access to information and communications technologies due to inefficient ICT systems integration serve as examples of soft infrastructure inefficiencies.

The above impediments culminate in high operational costs for road transport operators and directly impact the price and quality of cross-border road transport services as well as the cost of goods traded in the region. Therefore, governments in the region are increasingly required to re-orient strategies and efforts towards creating an enabling environment where freight can be transported in a cost-efficient manner.

This chapter is structured along the following lines:

- Road transport regulatory environment;
- Level of economic development in the SADC;
- General challenges and bottlenecks experienced along regional road transport corridors; and
- New and on-going developments at Continental, Tripartite and regional (SADC) level that seeks to bring about improvement.

Section 2.2 provides a bird's eye view of the current road transport regulatory environment in the SADC, while also reporting on new developments unfolding in the region, which aim to improve the status quo.

2.2 Road Transport Regulatory Environment

2.2.1 Status Quo

The road transport sector accounts for the majority of surface transport activity in the SADC and therefore plays an imperative role in fostering intra and inter-regional trade. Currently, cross-border road transport in the region is done through bilateral and multilateral cross-border road transport agreements that were concluded by and between MS. These agreements primarily focus on controlling the supply of transport services in the market through the issuance of cross-border road permits to transport operators.

Listed below are examples of the key legal instruments (e.g. bilateral and multilateral agreements) that regulates cross-border road transport movements in the SADC:

- The SADC Protocol on Transport, Communication and Meteorology (PTCM);
- The Trans-Kalahari Corridor MoU on Road Transportation;
- The SACU MoU on Road Transportation; and
- Bilateral Road freight and road passenger transport agreements concluded by and between respective countries such as Malawi, Mozambique, South Africa, Zambia and Zimbabwe.

The SADC PTCM is not a legally binding instrument. As such, this legal instrument does not tie or compel SADC Member states to reform their policies / legislation to enable the region to function as an integrated whole. Progress is dependent on the commitment and willingness of individual countries to conform their national legal instruments to regionally recommended guidelines. History has revealed that SADC MS's have a poor track record when it comes to the implementation of legal instruments. This is mainly the result of:

- Multiple membership of SADC MS's to different Regional Economic Communities (RECs) in misaligned priorities and procedures;
- Political disharmony between MS;
- Differences in MS capacity regarding resources, technology and development;
- MS's regard sovereignty a higher priority than the facilitation of trade and cross-border movements; and
- Lack of communication and distrust between MS's deter countries from working together.

The above-mentioned factors have contributed to the existence of fragmented regulatory framework(s) in the region. Each MS has its own regulatory mechanism that determines market access, operating requirements and rules and regulations that must be adhered to by transport operators.

Due to the different regulatory requirements in the SADC, operators must comply with different operating procedures as they traverse along regional road transport corridors. This leads to unnecessary complexities and requirements on transport operators, which frequently culminates in delays and unnecessary costs. Currently, regulatory frameworks are excessively focused on compliance and control at the expense of facilitating transport movements. The regulatory environment, however, is about to change soon with a movement towards quality regulation. More information on this development is presented in section 2.2.2.

2.2.2 Movement towards a New Regulatory Regime

In line with international best practice that have shifted from quantity regulation to quality regulation, the Tripartite is putting measures in place to implement quality regulation in the COMESA-EAC-SADC region. This will be accomplished through the adoption of a single Multilateral Cross-Border Road Transport Agreement (MCBRTA) by all participating countries that will enable commercial cross-border road transport operators to move goods freely within the Tripartite region.

Since the SADC forms part of the Tripartite, the implementation of a MCBRTA will culminate in cross-border road transport operations being regulated differently in the region. The MCBRTA is currently in draft format and some MS are already reviewing their domestic transport policies, regulations and systems to align it to the MCBRTA and standards. According to original planning estimates, the MCBRTA was due for implementation between 2017 and 2022, with all signatory countries migrating to quality regulation by 2022. Due to the disruptions caused by Covid-19, the implementation timelines have been extended by one year to 2023.

In practical terms this means that within the next three years, all Tripartite countries should have repealed bilateral cross-border road transport agreements and cross-border permits in favour of adopting a multilateral cross-border road transport agreement. Regulatory authorities in Tripartite MS will issue a cross-border road transport disk to all compliant operators that should be attached to cross-border vehicles and which will allow operators who conformed to quality regulation to move cross-border traffic seamlessly within the Tripartite.

2.3 Economic Development

The economies of SADC MS are at different stages of development. In several MS, agriculture plays a major role in the economy, employing almost half of the total population of the region. Subsistence farming comprises a large part of total farming, with large-scale production of high-value crops for export, limited to a few countries only. Meanwhile, mining employs approximately 5 % of the population and contributes 60 % to foreign exchange earnings and 10% of the Gross Domestic Product (GDP) for the region. (https://www.sadc.int/themes/economic-development/industry/).

Given the fact that the sixteen MS are at different levels of economic development, the region is characterised by acute economic imbalances and inequalities. This poses a threat to regional integration efforts since stronger economies tend to dominate, dictating the terms of reference and operation to weaker countries in the region.

The GDP serves as a broad measure of total production of finished goods and services produced within a country's borders over a specific time. As such, it functions as a comprehensive scorecard of a country's economic health. Economic imbalances between SADC MS are clearly noted in the statistics outlined in Table 5, illustrating the GDP for all SADC MS at current prices between 2008 and 2018.

Table 5: Gross Domestic Product in SADC at Current Market Prices (US$ million)

Country	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Angola	*88,539*	*70 415*	*83 799*	*111 943*	*128 138*	*136 725*	*145 668*	*116 164*	*101 124*	*122 121*	*107 970*
Botswana	*10 945*	*10 267*	*12 787*	*15 438*	*14 420*	*14 902*	*16 251*	*14 421*	*15 662*	*17 486*	*18 596*
Comoros	*524*	*531*	*906*	*1022*	*1 016*	*1 116*	*1 148*	*988*	*1 021*	*1 082*	*1 241*
DRC	*19,144*	*16 004*	*21 567*	*25 841*	*29 308*	*32 686*	*35 909*	*37 918*	*37 135*	*37 981*	*47 228*
Eswatini	*3 279*	*3 612*	*4 436*	*4 821*	*4 830*	*4 587*	*4 440*	*4 023*	*3 815*	*4 440*	*4 362*
Lesotho	*1 867*	*1 886*	*2 384*	*2 787*	*2 727*	*2 553*	*2 616*	*2 463*	*2 305*	*2 592*	*2 519*
Madagascar	*9 413*	*8 544*	*9 983*	*11 552*	*11 579*	*12 424*	*12 523*	*10 371*	*11 805*	*13 177*	*13 904*
Malawi	*5 322*	*6 185*	*6 960*	*8 003*	*5 721*	*5 290*	*5 918*	*6 431*	*5 310*	*6 348*	*7 197*
Mauritius	*9 984*	*9 135*	*10 002*	*11 517*	*11 669*	*12 122*	*12 804*	*11 671*	*12 127*	*13 146*	*14 129*
Mozambique	*11 557*	*11 242*	*10 456*	*13 135*	*15 343*	*16 123*	*17 327*	*15 457*	*10 902*	*12 647*	*14 428*
Namibia	*8 346*	*8 954*	*10 911*	*12 602*	*13 032*	*12 659*	*12 848*	*11 725*	*11 293*	*13 579*	*14 446*
Seychelles	*969*	*849*	*970*	*1 019*	*1 060*	*1 328*	*1 343*	*1 377*	*1 428*	*1 503*	*1 589*
South Africa	*287 100*	*297 217*	*375 298*	*416 878*	*396 811*	*366 837*	*351 047*	*317 638*	*296 333*	*349 630*	*368 398*
Tanzania	*27 389*	*28 574*	*31 704*	*34 452*	*39 643*	*45 668*	*49 969*	*47 522*	*49 763*	*53 281*	*57 347*
Zambia	*17 909*	*15 329*	*20 266*	*23 461*	*25 528*	*28 076*	*27 163*	*21 274*	*21 031*	*25 590*	*25 177*
Zimbabwe	*6 451*	*8 157*	*12 042*	*14 102*	*17 115*	*19 091*	*19 495*	*19 963*	*20 549*	*22 041*	*22 790*
SADC region	***508 737***	***4966 902***	***614 470***	***708 672***	***717 940***	***712 186***	***716 470***	***639 406***	***601 602***	***696 643***	***721 321***

Source: SADC. 2018

From table 5 the following findings are derived:

- South Africa's economy is the strongest in the region. The country's GDP grew by 28,3% over the 10-year period from US$ 287, 100 million in 2008 to US $ 368,398 million in 2018.
- Angola scored a second place in terms of total production of goods and services. Between 2008 – 2018 the Angolan economy grew by approximately 21,9% from US$ 8,539 million in 2008 to US $ 107,970 million in 2018.
- The two island states of Comoros and Seychelles reflected the lowest year-on-year GDP growth, with the Comoros totalling US $ 1,241 million in 2018 and the Seychelles US $ 1,589 million in the same year.
- Lesotho and Eswatini reflected the lowest GDP of all land-locked countries in the region in 2018. The GDP for Lesotho amounted to US $ 2 519 million in 2018, whereas Eswatini's GDP amounted to US $ 4 362 during the same year. Manufacturing capabilities in both countries is not fully developed

The heterogeneity of SADC economies enables larger economies to thrive at the expense of their smaller counterparts. As a result, trade imbalances persist, leading to wider economic gaps among MSs since those with larger economies continue to dictate the pace of economic growth and the level of intra- and extra-regional trade.

Tables 6 and 7 illustrate intra-SADC imports and exports of goods as the percentage of total imports and exports in the SADC between 2008 and 2018. The statistics displayed in both tables illustrate that most SADC MS trade more with non-SADC countries as compared to with each other.

Table 6: Intra-SADC Imports of goods as % of Total Imports (%) 2008- 2018

Country	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Angola	*7,4*	*10,0*	*5,3*	*5,8*	*6,8*	*8,1*	*5,0*	*4,9*	*5,9*	*5,6*	*4,3*
Botswana	*87,7*	*78,3*	*74,9*	*68,4*	*69,9*	*75,4*	*76,2*	*79,8*	*78,0*	*73,1*	*73,3*
Comoros	*87,8*	*11.0*	*12,4*	*9,0*	*11,5*	*15,2*	*11,9*	*8,6*	*9,3*	*10,0*	*9,3*
DRC	*34,6*	*27,3*	*29,8*	*25,0*	*25,0*	*25,0*	*25,*	*25,0*	*25,0*	*25,0*	*25,0*
Eswatini	*94,1*	*91,3*	*91,8*	*118,2*	*89,6*	*90,5*	*97,3*	*82,3*	*75,3*	*75,0*	*72,3*
Lesotho	*95,5*	*95,3*	*79,7*	*96,9*	*63,3*	*74,8*	*72,9*	*62,9*	*63,0*	*60,6*	*59,3*
Madagascar	*9,2*	*10,2*	*10,9*	*10,6*	*9,8*	*9,2*	*8,4*	*10,0*	*9,1*	*9,4*	*9,5*
Malawi	*33,2*	*35,9*	*25,3*	*22,8*	*23,7*	*22,4*	*40,9*	*32,5*	*33,9*	*33,0*	*27,1*
Mauritius	*9,9*	*10,1*	*10,0*	*9,2*	*8,4*	*8,6*	*8,7*	*9,9*	*11,3*	*12,3*	*11,8*
Mozambique	*34,2*	*38,2*	*65,0*	*36,4*	*30,0*	*35,1*	*33,4*	*31,9*	*33,5*	*32,2*	*30,8*
Namibia	*76,6*	*92,1*	*72,2*	*77,4*	*74,5*	*69,6*	*62,2*	*72,0*	*69,1*	*67,5*	*64,6*
Seychelles	*8,9*	*11,7*	*9,0*	*9,3*	*7,3*	*6,0*	*6,0*	*12,4*	*14,3*	*10,0*	*7,1*
South Africa	*6,7*	*5,3*	*6,5*	*5,7*	*7,1*	*6,5*	*6,2*	*7,5*	*7,4*	*7,1*	*6,7*
Tanzania	*13,7*	*11,2*	*11,0*	*13,7*	*9,6*	*7,6*	*6,1*	*7,1*	*6,5*	*7,7*	*7,0*
Zambia	*58,9*	*58,0*	*62,0*	*57,6*	*53,9*	*50,2*	*52,9*	*52,1*	*57,0*	*65,1*	*51,7*
Zimbabwe	*48,9*	*78,9*	*52,7*	*61,1*	*49,7*	*53,1*	*41,9*	*42,4*	*52,2*	*54,5*	*49,3*
SADC region	***17,5***	***20,1***	***19,8***	***19,1***	***18,6***	***19,1***	***17,7***	***20,1***	***20,7***	***19,7***	***19,1***

Source: SADC. 2018

From the information displayed in Table 6, it is clear that:

- Intra-SADC imports of goods as percentage of total imports of goods increased slightly from 17,5% in 2008 to 19,1% in 2018;
- There is a huge discrepancy in the level of intra-SADC imports amongst MS in the region. Some countries (e.g. Botswana, Eswatini & Lesotho) import most of their goods from SADC MS, while other countries, particularly South Africa, import most of their goods from outside SADC;
- Except for South Africa, the countries belonging to the Southern African Customs Union - Eswatini, Lesotho, Botswana and Namibia - import most of their goods from countries belonging to the Southern African Customs Union (SACU) and SADC;
- South African imports from SADC MS is below 10%, pointing to the fact that South Africa is more reliant on imports from other countries / continents to growth its economy;
- Botswana and Namibia account for the largest proportion of intra-SADC imports.

Table 7: Intra-SADC Exports of goods as % of Total Exports (%) 2008- 2018

Country	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Angola	*3,9*	*3,5*	*3,2*	*2,6*	*4,2*	*2,6*	*3,3*	*4,1*	*6,1*	*4,2*	*3,3*
Botswana	*25,6*	*20,8*	*18,6*	*18,9*	*18,1*	*29,5*	*25,2*	*29,1*	*26,4*	*12,8*	*13,7*
Comoros	*13,2*	*11,4*	*15,5*	*12,6*	*6,0*	*11,0*	*30,3*	*24,6*	*21,9*	*25,6*	*24,0*
DRC	*12,0*	*15,7*	*40,8*	*18,0*	*20,0*	*20,0*	*20,0*	*20,0*	*20,0*	*20,0*	*20,0*
Eswatini	*78,7*	*64,4*	*77,4*	*74,1*	*79,6*	*73,7*	*82,1*	*80,5*	*78,8*	*79,0*	*76,2*
Lesotho	*40,4*	*49,7*	*75,4*	*46,6*	*33,9*	*32,4*	*24,9*	*18,4*	*17,6*	*19,2*	*17,1*
Madagascar	*3,5*	*4,4*	*5,5*	*4,2*	*5,1*	*6,7*	*6,2*	*5,7*	*6,7*	*6,8*	*6,4*
Malawi	*12,3*	*13,9*	*14,1*	*15,1*	*11,3*	*14,6*	*26,1*	*22,0*	*26,3*	*19,0*	*23,8*
Mauritius	*9,7*	*11,9*	*11,8*	*13,7*	*16,0*	*13,6*	*13,0*	*15,7*	*15,9*	*15,9*	*16,6*
Mozambique	*27,8*	*27,9*	*26,5*	*22,0*	*25,3*	*28,0*	*28,5*	*25,7*	*27,9*	*21,6*	*20,7*
Namibia	*47,2,*	*64,1*	*41,7*	*41,3*	*38,9*	*50,2*	*43,5*	*54,4*	*41,5*	*46,0*	*33,5*
Seychelles	*2,7*	*2,2*	*0,7*	*0,2*	*1,2*	*1,0*	*0,5*	*0,3*	*0,2*	*0,5*	*0,4*
South Africa	*19,4*	*22,4*	*20,8*	*20,0*	*22,5*	*23,3*	*24,3*	*23,4*	*24,4*	*23,1*	*23,1*
Tanzania	*16,3*	*15,0*	*18,2*	*25,8*	*27,2*	*24,9*	*27,6*	*31,1*	*22,8*	*21,5*	*25,8*
Zambia	*20,0*	*21,9*	*18,3*	*21,1*	*29,7*	*29,5*	*21,4*	*23,0*	*20,6*	*17,2*	*18,8*
Zimbabwe	*43,9*	*64,3*	*45,3*	*50,8*	*78,9*	*83,2*	*75,5*	*69,2*	*71,8*	*71,8*	*64,0*
SADC region	***15,2***	***18,7***	***17,9***	***16,5***	***18,6***	***19,2***	***19,8***	***21,8***	***22,6***	***20,3***	***19,5***

From the statistics displayed in Table 7, the following picture emerges:

- As with intra-SADC imports, intra-SADC exports varied drastically between the sixteen MS between 2008 and 2018;
- Intra-SADC exports of goods as percentage of total exports of goods in the SADC grew steadily from 15,2% in 2008 to 19,5% in 2008;
- Four SACU MS- Botswana, Lesotho, Namibia and Eswatini- reflected the highest levels of intra-SADC exports over the period under review although the export percentages for all 4 countries dropped between 2008 and 2018;
- Zimbabwe revealed the greatest increase (45,8%) in intra-SADC exports over the period under review, while Lesotho showed the largest decline (57,7%) in intra-SADC exports between 2008 and 2018.

2.4 Cross-Border Challenges and Bottlenecks

The previous section concluded that SADC countries generally trade more with non-SADC MS, than with each other. Different studies indicate that the reasons for low trade flows between SADC countries lie in the existence of several non-tariff barriers (NTBs), including lack of adequate transport infrastructure, poor condition of regional road networks, excessive border delays, too many and high cost of road tolls, and a lack of integration into value chains.

Section 2.4 dwells into cross-border challenges and bottlenecks that impede the seamless movement of cross-border traffic flows within and across national boundaries in the SADC. The information obtained from this section will elevate priority intervention areas that should be escalated to national and regional decision-making structures to enable lasting change.

2.4.1 Poor State of Transport Infrastructure and Missing Links

Road transport accounts for most of the surface transport in the SADC. Although the region has an extensive regional trunk road network (RTRN), some sections of the RTRN, particularly on the North South Corridor (NSC) are not adequately maintained in some countries (e.g. Zimbabwe), mostly because of funding constraints.

Poorly maintained road networks and missing links along regional road transport networks are particularly noted in the north and western parts of the region, notably Angola and the DRC. Much of the road networks in both countries have been destroyed by prolonged civil wars. In Angola, the main links in the western half of the country are in a satisfactory condition, while roads on the eastern side are sparser and more dilapidated.

Constant political conflict and a lack of infrastructure has left the DRC one of the poorest countries in the world. This even though the country's geography and natural endowments of unexploited mineral wealth and uncultivated fertile land poses potential for the DRC to become one of the richest countries in the region.

A problem experienced in many SADC countries is that they do not have dedicated and ring-fenced road maintenance funding frameworks, which leads to erratic road network maintenance regimes. This impediment can be resolved if SADC countries adopt and implement funding frameworks that provide a conducive environment for private sector participation.

Since missing road links increase the distance travelled by vehicles between origin and destination points, cross-border road transport operators face higher transportation costs and longer journey times. Increases in transportation and logistics costs are ultimately passed on to the end-user.

2.4.2 Funding Shortages

Infrastructure development, as an enabler of economic growth and catalyst for poverty alleviation, is an integral part of the economic development agenda of most African developing countries. The infrastructure financing requirements of the SADC is set out in the SADC Regional Infrastructure Development Master Plan (RIDMP) that lays out infrastructure projects in six focus areas, including transport. These projects are due for staggered implementation over three-time intervals, i.e. short term (2012-2017), medium term (2018-2022) and the long term (2023-2027).

The current costs associated with the different projects are largely estimates and pin the Short-term Action Plan (STAP) at US$63.95 billion. Some clarifications on the project costs have increased this figure to US$64.15 billion. Furthermore, additional transport projects have added an amount of around US$2.8 billion. (https://www.tralac.org/discussions/article/5329-operationalising-the-sadc-regional-infrastructure-development-master-plan.html).

In addition to key regional infrastructure projects (those set out in the SADC RIDMP), the region also must deliver various infrastructure programmes under the Programme for Infrastructure Development Africa (PIDA), a strategic continental initiative that has buy-in from all African countries.

Although information on the implementation of RIDMP projects is not readily available, available sources at hand reveal that limited progress has been made to date with respect to the implementation of prioritised regional infrastructure projects. Several projects are still at the feasibility or pre-feasibility phases.

If the SADC wants to position itself more competitively in developing regional value chains and link into global value chains, the region should invest substantially in the development of cross-border-enabling infrastructure. Unfortunately, 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 and continental infrastructure projects. The status quo necessitates that SADC countries seek alternative funding sources to implement strategic transport projects at both regional (RIDMP) and continental (PIDA) level.

2.4.3 Capacity of Public Sector Institutions and Skills Shortages

To accelerate the operationalisation of strategic projects, as set out in the RIDMP, it is imperative to improve resource mobilisation at MS and regional level, especially at the very early project preparation phase. Literature sources reveal that most African governments lack both human and financial capacity. As a result, public sector institutions (e.g. Ministries of Transport, Department of Public Works) have trouble in developing projects to bankability, and fund deals. This results in delays in project approval and project development.

In addition to a shortage of resources to develop projects for bankability, the implementation of infrastructure projects / programmes in the SADC is hindered by a limited pool of people possessing the right technical skills, ranging from trained engineers, transport planners and financiers to construction workers with basic technical and vocational skills. This problem is worsened by the long-term tendency to award public infrastructure contracts to non-African companies, limiting skills and technology transfer. As a result, project costs escalate, local talent is not developed, and immigrant talent is imported to fill the gaps.

2.4.4 Corrupt Practices along Transport Corridors

While many law enforcement operations and checkpoints along strategic road transport corridors in the SADC are legal, some of them are not. There are several checkpoints along regional road transport corridors where drivers are subjected to harassment, corruption and extortion. Identified by their number plates, the thinking goes that South African transport and logistics companies carry more money onboard than their SADC counterparts, therefore South African vehicles are frequently targeted by criminals.

Corrupt activities do not only take place at law enforcement checkpoints along corridors, but also at border posts where various actors, including customs officials, border guards and immigration officials, with different powers and bureaucratic mandates, uses the opportunity to extract bribes. This practice reveals that while law enforcement inspections are supposed to increase compliance levels, it often increases the probability of non-compliance.

The C-BRTA conduct engagements with South African cross-border operators on a quarterly basis to listen and respond to operator complaints. During these meetings, corrupt practices at border posts is often raised as a key impediment to trade and travel. The problem is particularly acute at the Kasumbalesa border that links Zambia with the DRC. This inland border is characterised by a build-up of trucks on both sides of the border, awaiting customs clearance. Congestion at this border has created a breeding ground for criminality, with reported incidents of truck drivers who carry US$ to pay clearing fees, being held at gunpoint by soldiers who robbed them of their cash. (Goddard. 2018)

In addition to having a detrimental impact on transport costs, intra-regional trade, global exports, revenue collection and a country and region's general business environment, corruption at borders also attract a wide range of illegal activities such as the smuggling of people and goods and cross-border crimes involving drugs, illegal immigrants and violence. It Against this background, it is quite clear that corruption poses a threat to legitimate cross-border trade in the SADC.

2.4.5 Multiple Law Enforcement Inspections and Limited Information Sharing by law enforcement officers.

Law enforcement inspections in the SADC are conducted by several role-players. These parties rarely coordinate operations and as a result law enforcement checks are often conducted near each other by different stakeholders. Intermittent road checks cause interruptions (delays) in traffic flows and increase the cost of moving traffic between various locations. Furthermore, the existence of various road checkpoints increases the likelihood of corrupt activities to take place.

At the same token, the exchange of information on law enforcement transgressions between role-players in the region is poor, or rather non-existent. The seemingly simple act of information sharing amongst law enforcement agencies in the SADC is compromised by "invisible barriers" such as a lack of trust between role-players, security, politics, regulations, and management decisions. As a result, it is often impossible to trace the owners or employers of foreign drivers and, even when they can be traced; there is no legal process by which they can be forced to pay penalties while they are in their country of origin.

This impediment points to the need to establish an online system for the cross-border exchange of all road safety / traffic related information.

2.4.6 Inefficient Border Posts

Over the years, border posts emerged as one of the biggest impediments to intra-Africa trade and travel. While border post improvements are witnessed in some African regions, notably the East African Community (EAC), inland borders in the SADC remain inefficient, with lengthy queues and obstructions being experienced at all commercial borders in the region. At the Beitbridge border, trucks can queue between two to three days, while waiting for their documents to be processed. Other factors that add to congestion and delays at commercial borders include:

- Inherently inefficient border management systems;
- Un-harmonised customs systems and poor ICT systems integration, which result in duplicated activities;
- Un-harmonised border operating hours especially for key departments and / or agencies;
- Poor capacity, space limitations and poor signage;
- Existence of “several windows” which disrupt the seamless flow of traffic across borders;
- Absence of dedicated fast lanes for compliance and pre-cleared vehicles at most borders; and
- Inadequate parking for trucks.

SADC’s response to border post inefficiencies lies in the decision to transform several commercial inland borders into One-Stop Border Posts (OSBPs). The RIDMP prioritises the transformation of 18 traditional (two-stop) borders into OSBPs. Although the SADC Master Plan was released in 2012, only 1 border post (Chirundu) has been operationalised as an OSBP.

OSBP facilities have been built at the Lebombo / Ressano Garcia border. However, this inland border will only be transformed into a OSBP once legal frameworks have been signed by the governments of Mozambique and South Africa. Further progress is witness in on-going construction activities at the Beitbridge (Zimbabwe side only) and Kazungula borders, with construction at the latter border nearing completion. As far as the other OSBP candidates are concerned, limited progress is noted. Most projects are still in the pre-feasibility / feasibility phases and await funding to move beyond the planning / conceptual phase(s).

Since sufficient time delays are experienced at border posts, border post inefficiencies should be escalated for resolve to change the fortunes of the African people. Improvements in border post performance may increase the level of intra-African trade.

2.4.7 Safety and Security Concerns along Road Transport Corridors

Several road transport corridors running through the SADC have missing road links, disabling road transport along strategic corridors. These missing links lie predominantly in Angola and the DRC. Both countries have large extractive industries that rely heavily on roads to facilitate trade through transport.

The irregular placement of formal truck stops along regional transport corridor aggravates road safety concerns in the SADC. In the shortage of formal truck stops, transporters often stop at informal truck stops, or along the road network where they face danger of robberies and accidents.

The robbery of cross-border buses takes place from time to time along the N1 highway in South Africa. Bus drivers sometimes stop along the highway for “informal” activities, which lead to safety and security concerns for passengers.

2.4.8 Xenophobic Attacks on Foreign Operators / Driver Conflict

The road freight sector experience xenophobic attacks from time to time. This situation is particularly severe in South Africa where South African truck drivers is unhappy with the high number of foreign nationals being employed by local businesses to drive cross-border vehicles. Although statistics is not readily available, it is estimated that around 60% of all cross-border drivers are foreign citizens.

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. Currently, the hijacking and burning of vehicles are on the increase in South Africa, especially on national highways. The N3 highway, which links Kwa Zulu Natal and Gauteng, is often subjected to the assault of truck drivers and the burning of trucks. In November 2020, perpetrators petrol-bombed nine trucks on the N3 and R103 near Heidelberg in Gauteng.

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 a unique industry that covers various African countries. Special consideration should be given to the uniqueness of the industry when national legislation is drafted. A request was made by select 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.

2.4.9 Lack of Harmonisation

Currently, SADC MS levy different cross-border charges on cross-border road transport operators in line with national policy frameworks. Such charges are collected in pursuit of funding for road construction projects, as well as for improving road safety and law enforcement operations.

Cross-border charges are levied on foreign cross-border road transport operators (freight, bus and taxi vehicles). While most countries in the SADC region have implemented cross-border charges, a few have not, of which South Africa is an example The status quo (un-harmonised road transport environment) creates an un-level playing field whereby additional costs are imposed on some cross-border operators, creating conflict.

2.4.10 Weighbridges

Weighbridges constitute a fixed delay point along regional road transport corridors. As a result, cross-border operators (mostly road freight operators) are subjected to time delays when their vehicles are weighed at various weighbridge stops in the SADC. Time delays at weighbridge stations are caused by various factors, i.e. insufficient space to load and offload vehicles; limited resources allocated to conduct inspections and poorly maintained weighbridge scales.

In addition to the above impediments, the efficiency of weighbridge stations in the SADC is further undermined by the following factors:

- Many weighbridges are not calibrated. This causes problems for transport operators since different readings are obtained at different weighbridges resulting in penalties for transporters of overloaded vehicles;
- Most weighbridge stations accept only cash as payment of overloaded vehicles. This leaves truckers in a difficult position of having to abandon their vehicles to seek a bank, which may be several kilometres away. This problem is aggravated by a lack of secure parking for trucks; and
- Absence of mutual recognition of weighbridge certificates amongst MS. The lack of standardised, documented procedures for carrying out weighbridge operations has led to inconsistency in overload control activities in the region. Furthermore, the limited sharing of information amongst relevant stakeholders reduces the efficiency and effectiveness of overload control operations within SADC.

The Tripartite Transport Transit Facilitations Programme (TTTFP) is an example of an on-going initiative in the Tripartite that seeks to bring about improvement. The successful operationalisation of this programme will result in the implementation of the Tripartite Vehicle Load Management Strategy. Prior to implementation, Tripartite countries will sign the Vehicle Load Management Memorandum of Understanding (VLM MOU), one of the legal instruments that will drive the harmonisation or related regulations, standards and systems in the Tripartite region.

2.4.11 Disruptions due to the Covid-19 Outbreak

The COVID-19 pandemic has affected millions of people worldwide and to try and contain the spread of the virus, governments across the world have implemented various measures which have limited movement of people and goods across borders. SADC MS have also introduced measures to minimise the spread of the COVID-19 virus. Unfortunately, the implementation of these measures has impacted negatively on trade facilitation in the region. Listed below, are examples of disruptions caused by the Covid-10 pandemic:

2.4.11.1 Delays at Border Posts

The measures introduced at regional and MS level to control the spread of COVID-19 have resulted in delays in the movement of cargo at inland border posts. Ports of Entry. The requirement that trucks should be disinfected in some instances and the mandatory testing of truck drivers has led to delays in the movement of the most essential medical supplies and relief food.

In May 2020 there were reports of long queues of North bound trucks into Zambia at Botswana's Kazungula Border Post that were caused by the need to have truck drivers and truck crews tested for COVID-19 before crossing the border. (https://www.tralac.org/blog/article/14951-effects-of-the-covid-19-measures-on-trade-facilitation-in-sadc.html). The testing of the drivers and crew has led to cargo delays at most strategic border posts in the SADC, particularly the following:

- Nakonde border between Zambia and Tanzania;
- Chirundu border between Zambia and Zimbabwe;
- Forbes border between Zimbabwe and Mozambique;
- Beitbridge border between Zimbabwe and South Africa;
- Lebombo border between South Africa and Mozambique; and
- Kopfontein border between South Africa and Botswana.

2.4.11.2 Increased smuggling activities

The closing of some borders in the region, coupled with limitations of trade and domestic sale of goods have caused a huge increase in smuggling activities through undesignated points. Informal traders who survive on trading across the borders are now using undesignated crossing points to earn a living. But this comes with some heavy costs to the region as well as the traders. For example, between Zimbabwe and South Africa traders must cross the crocodile infested Limpopo River endangering their live to the payment of import duties. (https://www.tralac.org/blog/article/14951-effects-of-the-covid-19-measures-on-trade-facilitation-in-sadc.html)

In July 2020, several reports of the South African Police Service (SAPS) in South Africa pointed to an increase in cigarette smuggling cases during the lockdown period. There were also reports of liquor smuggling from Lesotho into South Africa caused by the COVID-19 induced ban on importation and consumption of alcohol in South Africa. Furthermore, due to the closure of borders and introduction of quarantine requirements by SADC MS, human trafficking through illegal crossing points and by commercial truck drivers have increased. (https://www.tralac.org/blog/article/14951-effects-of-the-covid-19-measures-on-trade-facilitation-in-sadc.html).

2.4.11.3 Prohibition of the Importation and Exportation of some Products

The introduction of lockdown measures in South Africa and Botswana also led to the introduction of restrictions on the public consumption of beer and cigarettes. Reduced consumption levels have affected trade in these two products.

Most SADC MS have also introduced measures that restrict the exportation of the following goods - face masks, ventilators, sanitisers – to ensure there are no shortages in their countries. Restrictions on exports also mean that time is spent waiting for approvals from

various government bodies. Other countries in the region are very strict on the importation or exportation of non-essential cargo during the COVID-19 period. At some border posts (e.g. Kasumbalesa) only limited types of goods are allowed into the DRC because of a Presidential Decree restricting the movement of non-essential cargo during the lockdown period. (https://www.tralac.org/blog/article/14951-effects-of-the-covid-19-measures-on-trade-facilitation-in-sadc.html).

2.4.11.4 Shortening of Working Hours

Some countries in the SADC responded to the COVID-19 challenges by shortening working hours both at the border posts and inland. Where business hours inland were reduced it also affected inland clearance of goods especially at container depots and customs offices located in the interior. For example in Zimbabwe through the adoption of a legal instrument (Statutory Instrument 174 of 2020), working hours over a period of almost four weeks were reduced form the usual 08:00 – 17:00 to 08:00 – 15:00.

Curfews in certain countries also affected trade facilitation. For example, in Zimbabwe trucks were not allowed to move between certain times of the night and in some instances even if they could move most businesses including fuel stations were closed. As a result, truck drivers were forced to wait until they open the next day for them to re-fuel and continue their trips.

2.4.11.5 Skeleton Staff at Border Post

In adherence to prescribed measures, SADC MS reduced the number of staff working at their Ports of Entry (PoE) to reduce chances of transmission of the COVID-19 virus. The reduction in staff in some instances, required re-engineering of processes to ensure border delays are minimised. Some countries however continued to conduct physical inspections even though they did not have enough human resources to do so. In doing so, excessive delays were experienced in the movement of cross-border traffic across inland border posts.

2.4.12 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.

2.4.13 Adherence to Fixed 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.

2.4.14 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.

2.4.15 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.

2.5 Developments unfolding at Continental and Regional Level

In response to infrastructure inefficiencies, various strategic transport projects / programmes have been approved for implementation by various structures at Continental, Tripartite and regional (SADC) level to create integrated transport infrastructure that supports intra-Africa trade and travel.

Given the vast number of reforms that has been approved for implementation and acknowledging the fact that information on the implementation status and impact of reforms is not readily available, this section does not dwell on all reforms. Instead the discussions that follow are limited to strategic initiatives unfolding at Continental, Tripartite and SADC level that have the potential to enable trade and transport integration in Africa, once implemented. reforms in this section are divided as follows:

Continental Initiatives

- Programme for Infrastructure Development Africa (PIDA);
- Presidential Infrastructure Champion Initiative (PICI);
- Move Africa Initiative; and
- Linking Africa Plan (LAP).

Tripartite Initiatives

- Tripartite Transport and Transit Facilitation Programme (TTTFP); and
- Multilateral Cross-Border Road Transport Initiative (MCBRTA).

SADC Initiatives

- SADC RIDMP.

2.5.1 Continental Initiatives

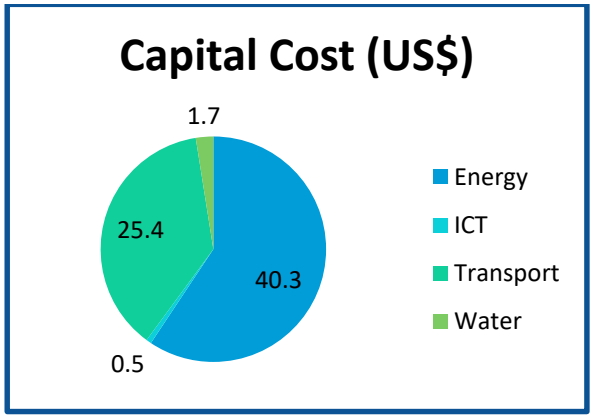
2.5.1.1 Programme for Infrastructure Development Africa

The PIDA for infrastructure development in Africa promotes regional economic integration through building mutually beneficial infrastructure, strengthening the abilities of countries to trade and establishing regional value chains for increased competitiveness. PIDA's main purpose is to strengthen the consensus and ownership of large cross-border infrastructure projects in the following infrastructure sub-sectors:

- Transport;
- Energy;
- ICT, and
- Trans-boundary water.

The PIDA Priority Action Plan (PIDA-PAP), which extends to 2020, comprises 51 priority infrastructure back-bone projects, divided into over 400 sub-projects and programmes which are spread across the four infrastructure sectors. While it is difficult to accurately project the capital cost of PIDA's long-term implementation through 2040 (currently estimated at more than $360 billion), the overall capital cost of delivering the PAP from 2012 through 2020 is expected to be nearly US$68 billion, as illustrated in figure 1 below.

Figure 1: Total Capital Cost of PIDA's PAP by Sector

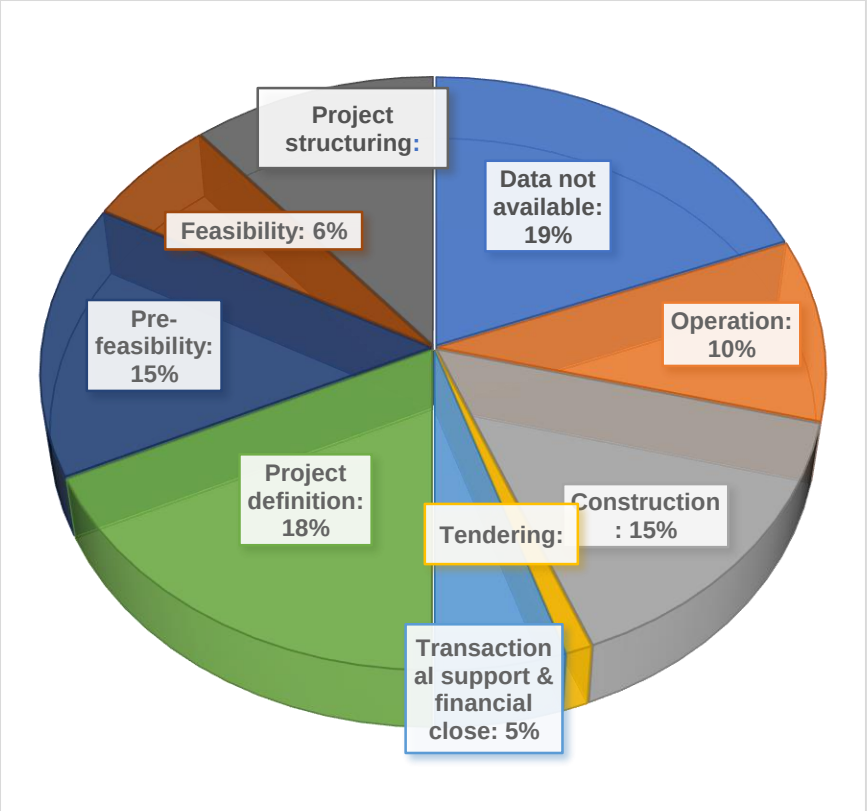


Source: NEPAD.

The greatest percentage of infrastructure spend ($40.3) will be directed towards the energy sector which accounts for 60% of the PIDA PAP programme, followed by transport ($25.4) at 37%. This clearly demonstrated the critical need for transformative investments in these sectors to promote African trade and promoting economic growth. Investment needs for ICT and water represent lower percentages. The ICT sector will receive less than 1% of total infrastructure spent since the basic ICT infrastructure network in Africa is largely in place.

The SADC region must deliver various infrastructure programmes under the PIDA. Figure 2 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 2: 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.

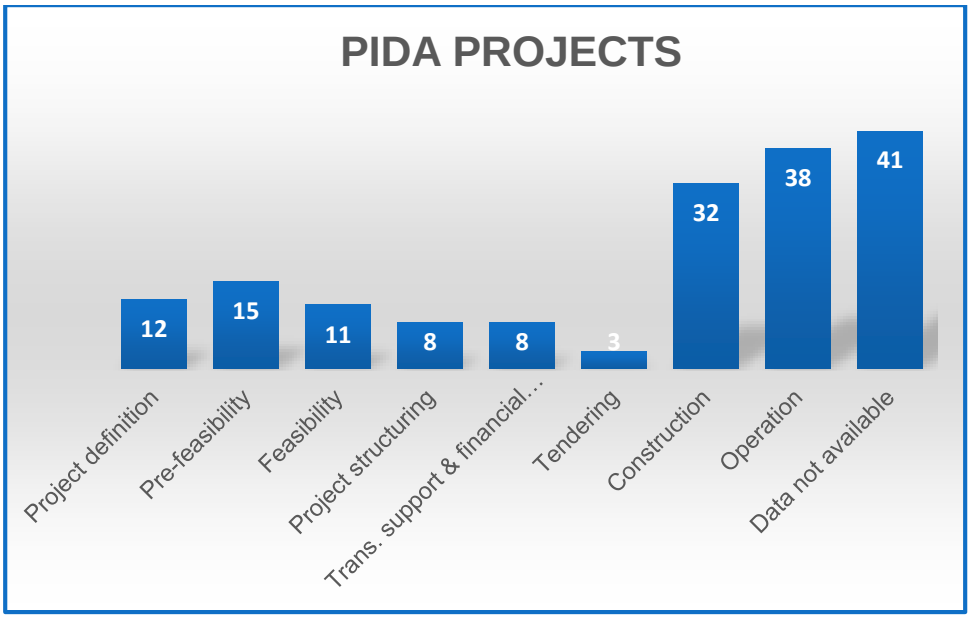
From the breakdown it is evident that most bottlenecks that cause the infrastructure deficit are at the project preparation stages (project definition, pre-feasibility & feasibility, project structuring and transaction support and financial close). While project preparation is commonly associated with 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.

➢ Status of PIDA

The Virtual PIDA Information Centre (VPIC) is an online knowledge portal that provides content on activities related to PIDA by all parties involved in accelerating the PIDA PAP. The purpose of this tool is to facilitate the sharing of PIDA-PAP information, promoting participation in PIDA implementation, enabling the tracking and reporting of progress in PIDA-PAP implementation and promoting investment opportunities in PIDA-PAP projects.

Figure 3 represents the status of PIDA projects as per the information displayed on the PIDA website, as captured on 10 February 2021. For more information on specific project status, the reader is advised to visit http://www.au-pida.org/

Figure 3: Status of PIDA Projects



Source: http://www.au-pida.org/pida-projects/

From Figure 3 it is evident that thirty-eight PIDA projects are still in the early stages of the project life cycle (project definition, pre-feasibility & feasibility). Thirty-two projects are in construction stage, while the project status is not available for forty-one PIDA projects. The unobtainability of data can be attributed to the challenges experienced about data collection, verification and analysis. In many cases information on projects is still incomplete, partly inaccurate and out-dated.

2.5.1.2 Presidential Infrastructure Champion Initiative

One of Africa's greatest challenges is regional infrastructure and intra-Africa trade. In response to the need for infrastructure development, former President Jacob Zuma of the Republic of South Africa, during the 23rd NEPAD Agency Heads of State and Government Orientation Committee (HSGOC) meeting in Kampala, Uganda, on 24 July 2010, proposed that the implementation of regional and continental infrastructure projects be accelerated through political championing.

The AU leaders agreed with this proposal and re-emphasised the importance of accelerating regional infrastructure development through committed political leadership, sponsorship and the championing of specific regional infrastructure projects. At the same AU Summit, the study for the Presidential Infrastructure Champion Initiative (PICI) was launched.

The role of the champions is to bring visibility, unblock bottlenecks, co-ordinate resource mobilisation and ensure project implementation. It presents the opportunity for African Heads of State and Government to be actively involved in the development and implementation of projects.

Initially eight projects were identified to be championed by seven selected Heads of State and Government. Most of these projects were endorsed by the 16th AU Assembly in January 2011 in Addis Ababa, Ethiopia. In recent years, new projects were added to the list, making the number of projects 11. The names of the PICI projects are listed below:

- Missing links on the Trans-Sahara Highway;
- Kinshasa-Brazzaville Bridge Road/Rail Project;
- The Abidjan-Lagos highway project;
- The Lake Victoria - Mediterranean Sea Navigational Line;
- The Lamu Port-Southern Sudan-Ethiopia Transport (LAPSSET) Corridor Project;
- The Namibian - International Logistics Hub;
- The Trans-Sahara Gas Pipeline;
- Unblocking Political Bottlenecks for ICT Broadband and Optic Fibre Projects Linking Neighbouring States;
- The Dakar-Bamaka Road/Rail Project;
- The North-South Road, Rail and related Infrastructure Corridor; and
- • The Sawakin-Port Sudan Project.

➢ Status of PICI

The NEPAD Agency, acting as the Secretariat and Executing Agency of the PICI and working closely with the country focal points of the respective MS, the AUC, AfDB and the United Nations Economic Commission for Africa (UNECA), continues to monitor the progress on the implementation of PICI projects. Regular Technical Task Team (TTT) workshops are being held to monitor the progress of the projects and to provide a platform to share experiences on project implementation.

A luncheon was held at the African Union Headquarters in Addis Ababa, Ethiopia on 8 February 2020 to discuss progress made with the implementation of PICI projects. Discussions revealed at some projects, i.e. Kinshasa-Brazzaville Bridge Road / Rail Project & Lake Victoria-Mediterranean Sea Navigational Line are still in the planning / conceptual phases awaiting funding to move forward. For some projects, i.e. the Trans-Sahara Gas Pipeline and Dakar-Bamaka Road / Rail Project limited progress was reported. For the North-South Corridor road, rail and related infrastructure corridor, it was reported that South African projects were proceeding well.

2.5.1.3 Move Africa

NEPAD has launched the Move Africa Initiative in May 2016 in Kigali, Rwanda. This continental initiative seeks to address policy hurdles to trade across the continent to enhance intra-Africa trade through comprehensive corridor development.

Comprehensive corridor development entails providing adequate *"hard"* infrastructure (e.g. physical structures such as roads, railway lines and bridges) and *"soft"* infrastructure such as cross-border transport laws and regulations related to border crossings (e.g. customs clearance, quarantine) and organisational systems and resources to ensure the smooth

operation of hard infrastructure across all transport modes. Both “hard” and “soft” infrastructure is critical to unlocking the continent’s economic potential.

Corridor development across Africa is inhibited by several complex factors and it is impossible to fully improve the entire cross-border transport system by focusing on either the hard or soft side of infrastructure in isolation. For this reason, a holistic approach is required when planning is undertaken for corridor development.

While PIDA articulates prioritised programmes for hard infrastructure, the Move Africa Initiative, which fits squarely within the PICI objectives, aims to package soft infrastructure issues to reduce transport costs along corridors. The Move Africa initiative also entails the development of a Traffic Light System (TLS) to unlock some of the transport challenges along transport corridors. The TLS is tool for monitoring and evaluating the performance of transport corridors, inter alia, through assessing the performance of OSBPs.

➢ Status of Move Africa

Since the launch of Move Africa, the NEPAD Agency convened several high-level dialogue sessions at continental and international level to attract development community and private sector support for the implementation of prioritised projects. NEPAD has also partnered with the Japan International Cooperation Agency (JICA) reduce processing inefficiencies and delays at inland borders through the implementation of OSBPs, which will be monitored in its TLS.

The SADC Committee of Ministers of Transport has endorsed four OSBPs to pilot the Light Traffic System. These borders, which will also act as roadmap for implementation of the TLS, are:

- Beitbridge,
- Kazungula,
- Kasumbalesa; and
- Chirundu.

The roadmap for the implementation of the TLS on the pilot border posts will be done in a 3-phase approach:

- *Phase 1* - Will look at the reporting of different indexes and sources;
- *Phase 2* – Will look deeper into the market dynamics, investment potential vis-à-vis risk assessments to ascertain the type and level of effort needed in a particular corridor by classifying the One-Stop Border Posts into A, B or C categories;
- *Phase 3* - Will give the overall ranking based on the variables in the first two sections to arrive at the traffic light categories of Green, Orange and Red.

The design of the Traffic Light System was scheduled for completion by the end of November 2017 with the piloting to commence during the early months of 2018.

2.5.1.4 Linking Africa Plan

Even though Africa is endowed with precious raw materials and a population of around 1.2 billion people, the continent has not been able to transform its comparative advantage(s) to its benefit through intra-continental trade and industrialisation. Currently Africa lags behind the rest of the world in terms of economic development and industrialisation.

Approximately 80% of African countries trade is with countries outside the continent, while the level of intra-African trade varies between 16-18%. Most of African exports are primary commodities and minerals, which gives rise to most of African exports under-going little processing before they are exported. Trade statistics reveal that approximately 26% of Africa's countries rely on one or two resource commodities for at least 75% of their exports, while about 60% rely on up to five commodities. The perpetual dependency on raw products exposes the continent to exogenous shocks (C-BRTA: 2018).

Further to the above, the continental transportation system is characterised by various hard and soft infrastructure inefficiencies that results in long journeys, high transportation costs and poor connectivity. To change the economic fortunes of African countries the C-BRTA, in consultation with various regional stakeholders embarked on development of the Linking Africa Plan (LAP) in 2017.

The LAP is developed as a transport and trade integration campaign that positions transport and trade as twin partners to serve as catalysts for growth. The LAP seeks to connect the economies of the African continent through the creation of seamless, integrated transport infrastructure / systems, while transforming and diversifying African economies by creating new markets within Africa itself. Economic growth will spur the development of logistics clusters and hubs of differentiated specialisation.

The LAP builds on the momentum of regional integration initiatives, enshrined in various African Union programmes (e.g. Africa 2063 Agenda: The Africa we want) and Tripartite programmes (e.g. Tripartite Transport and Transit Facilitations Programme). The LAP therefore does not seek to replace programmes being implemented, but rather compliments them and seeks to attend to, and address the soft issues which, historically have been neglected.

The LAP answers questions beyond the physical barriers that are constraining the linking of the continent. The Plan is therefore essentially focused on trade and transport regulatory issues and seeks to give effect to the task of harmonising cross-border trade and transport governance matters. Furthermore, it is concerned with partnering with, and working with private sector players to improve predictability for cross-border road transport operators, cargo owners, traders of cross-border goods and services, freight forwarders and many other players in the cross-border trade and transport value chain.

- **Status of Linking Africa Plan**

From the outset, the C-BRTA has worked closely with selected national, regional and continental stakeholders in developing the LAP. The draft plan was presented to corridor role-players at the OR Tambo Road Transport Indaba, hosted by the C-BRTA in partnership with the DOT and with support of the SADC Secretariat, in October 2017 in Pretoria, South Africa. The Indaba was attended by various government and regulatory stakeholders from various MS in the East and Southern African region, cross border road transport operators, donor and development partners, and academia and industry experts.

Inputs received from delegates were incorporated into the LAP and assisted with the identification of key implementation reforms. As already mentioned, the LP focus mainly on addressing soft issues (challenges) facing the transport, trade and industrial sectors. The reason for prioritising soft issues is that the mandate of public sector role-players (including the C-BRTA) enables relevant parties to work together in jointly addressing soft infrastructure issues. Furthermore, solutions to soft issues are less costly to implement and their benefits are visible over a shorter period.

Since the LAP compliments existing continental and regional initiatives, the importance of adopting a coordinated and collaborative approach to align the LAP with continental and regional programmes / initiatives cannot be over-emphasised.

2.5.2 Tripartite Initiatives

Further to continental initiatives, several strategic trade and transport facilitation reforms have been approved and are currently being implemented by the EAC-COMESA-SADC Tripartite. Of importance is the Tripartite Transport and Transit Facilitation Programme (TTTFP), which is addressed in greater detail below.

2.5.2.1 Tripartite Transport and Transit Facilitation Programme

Tripartite MS launched the Tripartite Trade and Transport Facilitation Programme (TTTFP) in 2017 to facilitate the development of a more competitive, integrated and liberalised regional road transport market in the Tripartite through:

- Increasing trade and promoting economic growth in the East and Southern African regions;
- Reducing the high cost of trade in the Tripartite and assisting national governments to address trade barriers;
- Reducing transit times and transaction costs along strategic corridors in East and Southern Africa through improved infrastructure, faster border crossings and harmonised trade and transit regulations; and
- Improving the effectiveness of aid by coordinating donor funding for priority Aid-for-Trade programmes.

The TTTFP combines a series of initiatives of all three REC into a single trade facilitation programme that provides for:

- A mechanism for reporting, monitoring and eliminating NTBs;
- Border and customs procedures for OSPBs, coordinated border management, regional customs bonds and transit information management systems;
- Immigration procedures; and
- Transport procedures (regional third-party insurance, vehicle standards and regulation, self-regulation of transporters, overload control, harmonised road user charges and regional corridor management systems).

There are four major areas where key results are expected to be implemented by 2022:

Result 1: Implementation of Tripartite Vehicle Load Management Strategy;
Result 2: Implementation of harmonised vehicle regulations and standards;
Result 3: Implementation of TRIPS; and
Result 4: Improved efficiency of regional transport corridors.

The harmonisation of legislation is an enormous task which is being funded by the European Union (EU) over a four-year period. This exercise will provide essential learning for the harmonisation of legislation on all transport corridors across the African continent. The programme focuses on the establishment of minimum standards, instruments, enabling regulation and systems for 11 key elements of road transport activities set out in Table 8.

Table 8: Harmonisation Elements

Key Elements of Road Transport Activities		Output
1.	Vehicle Overload Control	Development of harmonised regulations and standards and uniform management & control systems to support weighbridge developments and permit inter-state coordination.
2.	National Transport Operator Registration	Development of a uniform and harmonised system of operator registration, backed by a uniform national transport information system.
3.	National Transport Information System	Establishment of TRIPS to permit harmonisation, coordination and joint control of cross-border road transport in the region and the sharing of information on drivers, vehicles and operators involved in cross-border road transport operations and services.
4.	Vehicle Dimensions	Development of harmonised regulations and standards.
5.	Vehicle Testing Stations and Inspection	Development of harmonised regulations, standards and procedures.
6.	Training, Testing and Licensing of Drivers	Development of harmonised regulations, standards and procedures.
7.	Transportation of Abnormal Loads	Development of harmonised regulations, standard procedures and support systems.
8.	Transportation of Dangerous Goods	Development of harmonised classifications and training standards, regulations and procedures.
9.	Third Party Motor Vehicle Insurance Schemes	Development of harmonised cross-border third party motor vehicle insurance schemes.
10.	Vehicle Load Management MoU	Signing / ratification of Tripartite Vehicle Load Management MoU
11.	Multilateral Cross-Border Road Transport Agreement	Development and implementation of the Multilateral Cross-Border Road Transport Agreement.

Source: MCLI Newsletter. 29 March 2018.

The successful implementation of the TTTFP depends on Tripartite MS signing and implementing the:

- Vehicle Load Management Memorandum of Understanding (VLM MoU); and
- Multilateral Cross-Border Road Transport Agreement (MCBRTA).

The above instruments serve as the ***primary legal instruments*** to drive the harmonisation of related regulations, standards and systems. Harmonisation can however not be introduced in the absence of a supporting statutory framework in the form of enabling legislation. For this reason, the TTTFP will develop Model Laws and a framework for common systems and exchange of information among MS.

The following model laws will be developed under the TTTFP:

- Vehicle Load Management Model Law;
- Vehicle and Driver Quality Model Law;
- Cross-Border Road Transport Model Law;
- Dangerous Goods Model Law; and
- Model Law on Decriminalisation of Road Traffic and Transport Offences and Demerit Points System.

The following support will be provided to the selected MS, corridor institutions and other stakeholders:

- Training of experts;
- Institutional capacity building in preparation for implementation;
- Implementation of harmonised legislation, regulation, systems and procedures;
- Development, implementation and commissioning of transport information management systems; and
- Evaluation of lessons learnt on selected corridors and making of recommendations for roll-out to other corridors.

➢ Status of the Tripartite Transport and Transit Facilitations Programme

The Tripartite Sectoral Committee of Ministers of Infrastructure at their inaugural meeting on 26 October 2017, in Dar es Salaam, Tanzania officially launched the TTTFP. Since islands such as the Republic of Madagascar and the Union of the Comoros do not have active cross border road transport operators on the continent, they are not included in the TTTFP.

The TFTA will be officially formed once the TTTFP has been ratified by the national parliaments of all MS. Table 9 below outlines progress towards implementing the TTTFP. Information was extracted from the TTTFP website on 10 February 2021. (https://tttfp.org/current-status/).

Table 9: Update on TTTFP

	Key Area	Competed Work	Work in Progress
1	Implement the Tripartite Vehicle Load Management Strategy;	The following specifications and standards documents have been compiled: ○ Weigh Station Standard Design Specification; ○ Weigh Station Module Functional Requirements Specification; ○ Standard for Static Scale Calibration; ○ Standard for Weigh-In-Motion Calibration.	○ Identifying optimal weighbridge locations throughout the region. ○ Training and implementation of Vehicle Load Management within the Tripartite. ○ Benchmarking weighbridge management systems within the Tripartite. ○ Signing of Vehicle Load Management Agreement (VLMA) by countries.
2	Implement harmonised vehicle regulations and standards	○ Drafting of agreements, model laws and regulations. ○ Country Sensitisation Workshops conduct to introduce TTTFP Agreements and model laws. ○ Standard specification for an ISO / IEC 18013 compliant driving licence and Professional Driving Permit (PrDP). ○ Conversion of domestic driving categories to categories compliant with the MCBRTA categories for Mozambique, Ethiopia, Eswatini, Uganda and Zanzibar. ○ Design of ISO compliant driving licence and PrDPcard for Angola and Ethiopia.	○ Signing of VLMA and MCBRTA by countries. ○ Drafting of conversion provisions for driving licence categories and design of compliant driving licence cards and PrDP's. ○ Motor vehicle roadworthiness and vehicle inspection stations. ○ Vehicle inspection and driving testing centre specifications. ○ Processes for privatisation of motor vehicle Inspection.
3	Implement TRIPS	Functional requirements for the modules of the national transport information system: ○ Driving licence module; ○ Vehicle and vehicle testing module; ○ Accident module; ○ Operator module; ○ Transgression module; ○ Weigh-station module; ○ Updating system specifications for TRIPS.	○ Functional and non-Functional Requirements for the cross-cutting functionality and interfaces of the national transport system. ○ Update functional requirements for the modules of the national transport information System.
4	Improve the efficiency of regional transport corridors	○ Facilitating meetings between Cross Border Road Transport Regulators.	○ Implementing Yellow Card Scheme in the relevant Tripartite Member States.

- Facilitating meetings between Tripartite Member States.

Source: https://tttfp.org/current-status/

2.5.2.2 Multilateral Cross-Border Road Transport Agreement

Regulatory instruments in the Tripartite (e.g. Protocols, Treaties, Bilateral agreements) are still based on the assumptions of quantity regulation and "supply-side" control of the movement of freight and passenger transport vehicles, while international best practice has shifted from quantity to quality control to enhance corridor efficiency. In line with this development, the Tripartite has adopted the MCBRTA which will require signatory states to introduce quality regulation in their respective territories.

Essentially quality regulation implies that the bilateral issuing of cross-border road transport permits between 2 MS will be abolished in favour of the adoption of a MCBRTA that supports the creation of a single regional road freight market in which cross-border road transport movements will move freely in the Tripartite region.

As already stated, the MCBRTA will act as a primary legal instrument towards implementing the TTTFP. As such it provides for the establishment of the TRIPS that will capture information on cross-border operators, drivers and fleet. It is envisaged that the TRIPS will allow regulators to improve their monitoring and enforcement functions via accessing real-time information on registered operators and vehicles. Operator misconduct will be identified through operator profiling, audits and random inspections and will be registered against the operator's profile.

➢ Status of the Multilateral Cross-Border Road Transport Agreement

The adoption of the MCBRTA is a requirement towards introducing a harmonised regulatory framework in the Tripartite. Progress towards implementing quality regulation in the Region is witnessed in the following accomplishments:

- Development of the draft MCBRTA;
- Conceptualisation and development of guidelines for TRIPS;
- Kick-start of validation workshops with signatory states to validate draft standards; and
- Signing of the MCBRTA by the Council of Ministers of Transport after validation workshops have been concluded.

Outstanding actions include:

- Domestication of the MCBRTA at MS level;
- Establishment of structures to coordinate the implementation of the MCBRTA;
- Development and implementation of TRIPS; and
- Implementation of the MCBRTA.

According to the original planning estimates, the MCBRTA was scheduled for implementation between the years 2017 and 2022. Given the disruptions caused by the Covid-19 pandemic, the implementation timelines have been extended. According to the new timelines all signatory MS will have to migrate to quality regulation by 2023.

2.5.3 SADC Initiatives

2.5.3.1 SADC Regional Infrastructure Development Master Plan

Infrastructure development in SADC is guided by the SADC Regional Infrastructure Development Master Plan (RIDMP) that was finalised in August 2012. The Master Plan outlines strategic projects in 6 priority sectors, including transport. According to planning estimates, the RIDMP would be implemented in a phased approach, as indicated below:

- Short Term Action Plan - 2012 –2017;
- Medium Term Action Plan – 2018 – 2022;
- Long-term Action Plan – 2023-2027.

The SADC Secretariat, with the support of the Austrian Development Agency (ADA) and the Development Bank of Southern Africa (DBSA) has engaged the Southern African Research and Documentation Centre (SARDC) to carry out an independent assessment of results achieved by the RIDMP Short Term Action Plan.

A key finding emanating from this research is that many of the infrastructure projects are experiencing high levels of stagnation. An analysis of 134 projects reviewed in terms of this study, indicates that most projects remain at the feasibility stage with very few having been completed. (SADC. 2019: 9). Table 10 provides a bird's eye view of the overall status of prioritised SADC projects in all six priority sectors.

Table 10: Overall Status of SADC Projects

Sector	Pre-feasibility	Feasibility	Project Design	Financial Closure	Project Implementation	Project Completion	Total
Transport	7	27	7	1	9	1	52
Energy	3	20	3	1	2	1	30
Water	6	3	9	0	1	0	19
ICT	1	0	0	0	14	2	17
Meteorology	0	0	0	0	5	2	7
Tourism	0	1	0	0	7	1	9
TOTAL	**13**	**51**	**19**	**2**	**38**	**7**	**134**
Percentage	13	38	14	2	28	5	100

Source: SADC 2019

Table 10 reveals that only 7 projects have reached the project completion phase. Most projects are still in the planning (pre-feasibility and feasibility) phases. Main causes for poor performance lie in the inability of MS to raise the required funding for infrastructure projects and limited capacity within MS to develop bankable project proposals that can attract investors or funding partners.

2.5.3.2 Launch of a SADC Infrastructure Web Portal

SADC Secretariat has taken the lead in implementing an infrastructure web portal, that displays project information on strategic regional infrastructure projects in all infrastructure sub-fields, during the early months of 2020. The online platform is linked to the SADC website and display dashboards for all SADC infrastructure projects. It also allows the filtering and visualisation of regional infrastructure projects by sector, countries, current stage and reference plan. Table 11 illustrates the breakdown per infrastructure sub-field:

Table 11: Breakdown per Infrastructure Sub-Field

Infrastructure Sub-Field	Projects by Sector
Energy	23
ICT	18
Transport	40
Water	3
TOTAL	84

On 10 February 2021, the listing of projects by actual project stage looked as follows:

- Project definition: 8
- Pre-feasibility: 5
- Feasibility: 11
- Project Structuring: 5
- Transaction Support and Financial Close: 6
- Tendering: 5
- Construction: 9
- Operation: 5
- Data not available: 9

The above figures reveal that eighteen projects are still in the early stages of the project life cycle (project definitions, pre-feasibility and feasibility), while nine projects are in the construction phase and 16 in operation. Information is not available for 9 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 12 summarises the project stage of projects for the transport sub-sector. Information was obtained from the interactive project dashboard in March 2020.

Table 12: 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 extension	Upgrade	Railway	Zambia	Feasibility	2017	43%
20	Gwanda-Beitbridge road	Upgrade	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 Design on the North-South Corridor	Upgrade	Road	Several countries	Data not available	2013	9%
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 data poses several benefits. Not only will it enable monitoring and evaluation bodies to identify problems as and when they occur, it may also entice foreign investors to fund strategic infrastructure programmes in the SADC to move such programmes to completion.

2.6 Conclusion

All road transport corridors that run through the SADC are characterised by numerous infrastructure impediments that create operational constraints and bottlenecks for cross-border road transport operators. Infrastructure inefficiencies are partly to blame for the low levels of intra-regional trade. To change the status quo, several key infrastructure projects have been prioritised at regional level to develop efficient, seamless and cost-effective trans-boundary infrastructure.

Unfortunately, many projects in the SADC have not yet moved beyond the project preparation stages (project definition, pre-feasibility and feasibility). Inadequate public-sector resources to package projects for bankability and hesitance of private financiers to support the earliest project stages owing to high risk that projects will not reach financial close, are cited as main reasons for this tendency. Failure to move projects to implementation and financial close will imply that the region’s development goals look good on paper but fail to materialise in practice.

3 STATE OF OPERATIONS ALONG SELECTED ROAD TRANSPORT CORRIDORS IN THE SADC

3.1 Introduction

Transport corridors form the backbone of the SADC economy. Their strategic importance lies in the fact that they facilitate trade throughout the region by connecting seaports to inland markets and the six land-locked countries through several modes of transport.

Against this background, chapter 3 provides a comprehensive discussion of selected strategic road transport corridors that run through the SADC. Eighteen (18) major corridors transit the SADC, linking the interior to fourteen major seaports. Strategic corridors also link the six (6) land-locked countries to global markets via ports in South Africa, Mozambique, Angola and Namibia.

Transport corridors generally follow well-defined trade routes with road and rail infrastructure that is in a fair to good condition. According to published literature sources regional road transport corridors serve a dual purpose:

- Firstly, they act as effective transport and communication networks that facilitate intra-regional trade and integrate regional countries; and
- Secondly, they stimulate investment in sectors along corridors, thereby developing the region(s) as investment opportunities can be harnessed more easily due to quick access to resources, markets and port.

In line with the report focus, the discussions of chapter 3 are limited to the NSC and the TKC, with specific reference being paid to the following areas:

- High-level infrastructure overview;
- Institutional arrangements;
- Corridor performance;
- Corridor safety and security;
- Major infrastructure constraints; and
- New and On-going corridor initiatives.

3.2 High-level Overview of Selected Transport Corridors

3.2.1 North-South Corridor

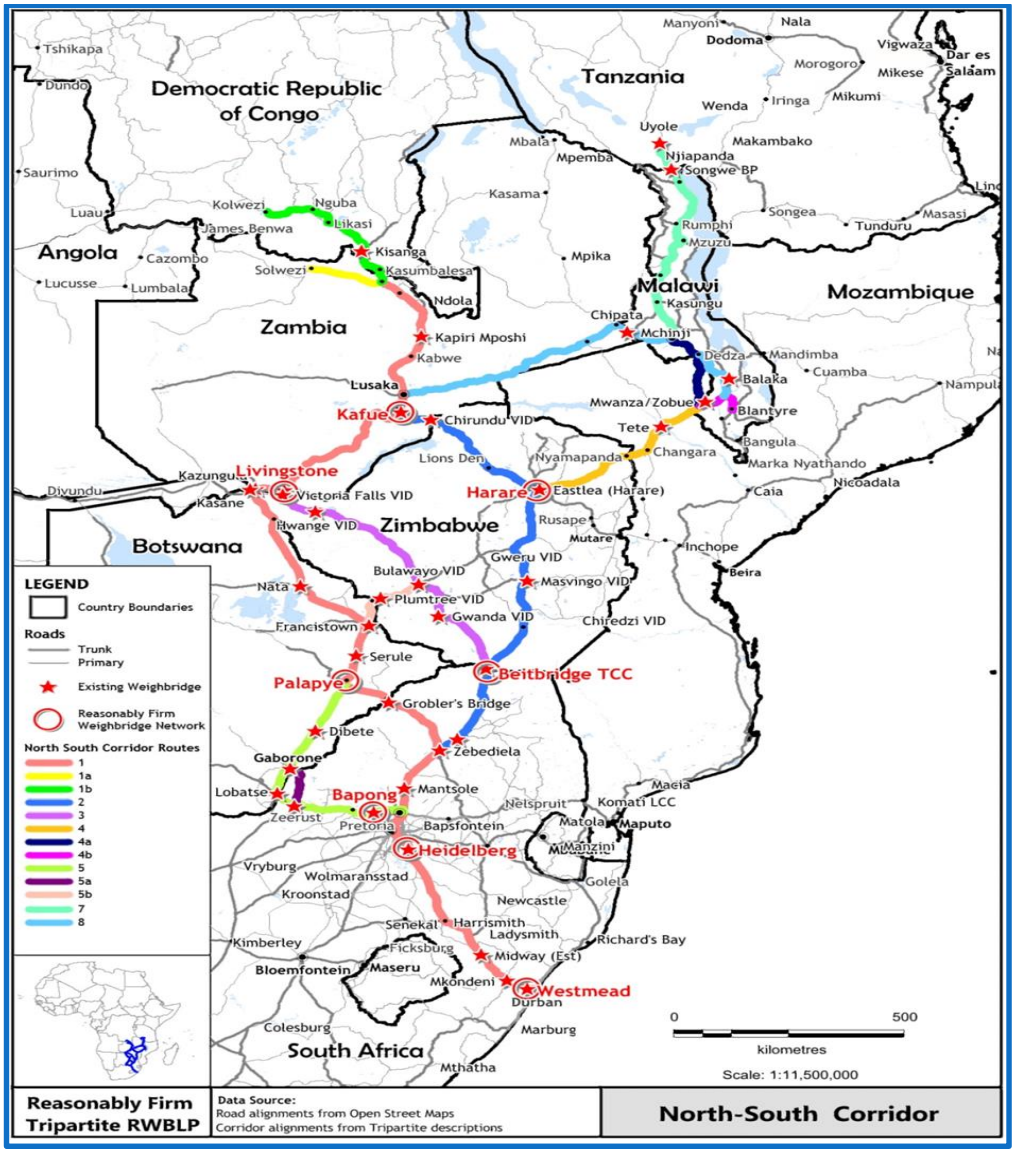
3.2.1.1 Introduction

The NSC extends over the territories of three Regional Economic Communities (RECs) namely COMESA, EAC and SADC, linking the port of Durban in South Africa with the Dar es Salaam port in Tanzania. Representing more a network of corridors than a single corridor, the NSC transit eight countries in Southern and Eastern Africa and interconnects with several corridors, including the MDC and the TKC.

The NSC road network is the busiest transport network in the SADC in terms of both traffic and freight volumes. Approximately 95% of all freight on this corridor is moved by road, with only 5% by rail. (http://www.trademarksa.org/publications/tmsa-ppiu-update-and-map-north-south-corridor-aid-trade-road-projects).

Figure 4 depicts the NSC graphically.

Figure 4: North South Corridor



Source: https://tttfp.org/corridors/north-south-corridor-2/

3.2.1.2 Infrastructure Components of the NSC

a) Seaports

The only ports on the NSC are the ports of Durban and Dar es Salaam.

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 past two decades, with a resultant increase in congestion at this seaport. Although Durban 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's 13 and 14 outlines provides information about the performance of the ports of Durban and Dar es Salaam. Information was extracted from a PwC report, titled "Strengthening Africa's gateways" that was published in April 2018.

Table 13: 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 (Tons 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

For the 2019 calendar year ended 31 December 2019, Durban port handled 3253 sea-going ships with a gross tonnage of 122,701,188 gross tons. Total cargo handled during the same year (2019) was 81,211 million tonnes for all products and commodities. TEU's handled during 2019 totalled 2,844 million. (https://africaports.co.za/durban/).

- **Port of Dar es Salaam**

Dar es Salaam port is the Tanzania's principal port and handles around 95% of Tanzania's international trade. This port serves the landlocked countries of Malawi, Zambia, DRC, Burundi, Rwanda and Uganda. Furthermore, it is strategically placed to serve as a convenient freight linkage not only to and from East and Central Africa countries but also to the middle and Far East, Europe, Australia and America.

Table 14: Information about the Port of Dar es Salaam

General Information	
Port authority	Tanzanian Ports Authority
Port/Terminal Operator	Tanzania International Container Terminal Services
General draughts	➢ Channel depth: 10 m ➢ Cargo pier depth – 10 m ➢ Anchorage depth – 21,3 m ➢ Oil terminal depth: 10 m
➢ Planned Developments	➢ Widening of the navigational channel with a turning basin off the new berths ➢ Deepening of the channel ➢ Building of a new quay wall ➢ Building of a new break-bulk quay ➢ Construction of new container terminals ➢ Reclamation of land ➢ Building of two multi-story car parks ➢ Building of grain silo
Volume and Capacity	
Container throughput (TEUs per annum)	638 023
Bulk/break-bulk throughput (Tons per annum)	14,803,330
Design capacity (TEUs per annum)	400 000
Container stacking capacity (TEUs)	11 500
Operational Efficiency	
Lines shipping connectivity (max score is 87)	9,5
Container handling efficiency (TEUs per ship working hour)	17
Port infrastructure quality (max score is 7)	3,4
Container dwell time (days)	7
Logistics Performance Index (max score is 5)	2,74

Source: PWC. April 2018

b) Road Infrastructure

The NSC road network connects the port of Durban in South Africa to the Copperbelt regions of the DRC and Zambia, with extending links to Dar-es-Salaam and Malawi. From South Africa cross-border operators can cross the Beitbridge and Chirundu borders in Zimbabwe and Zambia to reach Dar es Salaam in Tanzania.

There is an alternative route that links South Africa to northern countries bypassing Zimbabwe. The route exits South Africa via the Martin's Drift / Grobler's Bridge border crossing into Botswana, then exits Botswana via the Kazungula border-post into Zambia from where it then connects into the DRC via the Kasumbalesa border post. The route that goes directly via Zimbabwe is shorter by about 150 kilometres but is often slower due to inefficiencies at the Beitbridge border crossing where delays with documentation frequently last two or more days. (http://www.transportworldafrica.co.za/2016/01/15/north-south-corridor-africas-main-vein/).

Table 15 depicts priority road sections in several countries (excluding South Africa) that constitute the NSC road network.

Table 15: North South Corridor – Priority Roads

Country	Section of the North South Corridor
Botswana	Nata – Kazungula
DRC	Kasumbalesa – Kolwezi
Malawi	Nsipe – Zalewa – Bwengu – Chiweta
	Karonga – Songwe
Tanzania	Tunduma – Dar es Salaam
Zambia	Serenje – Nakonde
	Lusaka – Chirundu
Zimbabwe	Beitbridge – Victoria Falls
	Harare – Nyamapanda

Source: COMESA, EAC, SADC Tripartite. 2011

Although not depicted in the table above, the N3 and N1 highways form the main artery of the NSC in South Africa. Road infrastructure on both highways is in very good condition. Most sections of both highways are two-lane dual carriageway. Although the N3 and N1 highways have high carrying capacities, both highways experience high levels of traffic congestion, caused by the high number of heavy goods vehicles. Furthermore, they carry a high volume of private vehicles as they provide the main road link between the KwaZulu-Natal and Gauteng regions in South Africa.

The section of the NSC in Zimbabwe is characterised by several limitations, including poor and deteriorating road conditions, poor road connectivity and difficulty in sourcing fuel and other transport needs. Maintenance work on the Harare – Beitbridge section of the NSC improved road conditions and road safety. However, the installation of manual toll booths over this stretch of road causes disruptions for cross-border operations in the form of time delays.

Zambia made significant progress in upgrading its trunk road network in recent years. In 2011 more than 80% of Zambia's paved road network which form part of the NSC road network are found to be in a good or fair condition (World Bank. 2011: 8-9). While the main roads in Lusaka and the principal highways linking Lusaka with the major provincial capitals are generally

maintained, many secondary roads are in poor repair. Most roads do not have shoulders or sidewalks, forcing pedestrians and livestock to use the roadways both day and night.

Condition of roads in the DRC. Is an extremely bad state of repair following years of armed conflicts. Only a few roads, mainly from the Port of Matadi to Kinshasa and in Southern Katanga remains in a relatively good condition. The poor state of bridges and ferries used to cross small rivers act as main bottlenecks that impede seamless road transport movements. (https://reliefweb.int/sites/reliefweb.int/files/resources/296FAADD2CD1C4EF852571B5005CD59C-unjlc-cod-24jul.pdf).

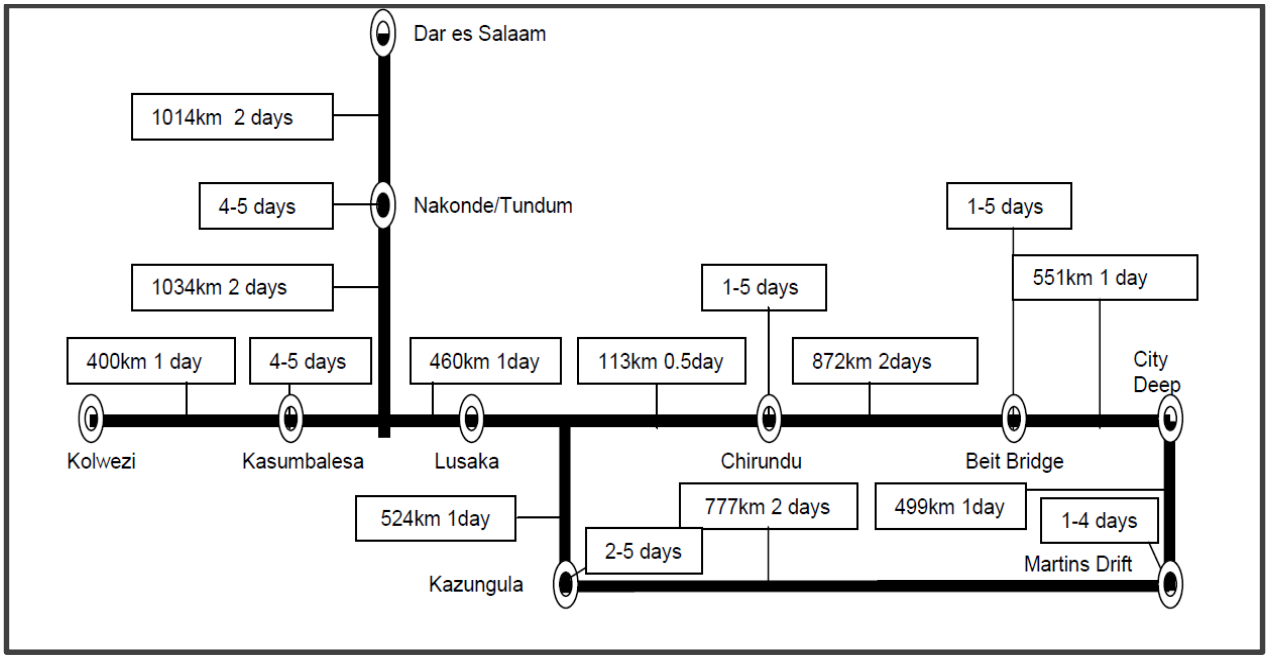
The discussion below depicts a road journey (and route options) along the NSC that cross-border operators can select when transporting cross-border traffic from the port of Dar es Salaam in Tanzania to City Deep in Johannesburg, South Africa, via roads. Information has been extracted from the North South Corridor Pilot Aid for Trade Programme, a joint initiative undertaken by the COMESA-EAC-SADC initiative.

➢ Road Journeys along the North South Corridor – Southbound Traffic

Given the flexibility and reliability of road transport, most cross-border commodities moving along the NSC is undertaken by road vehicles. Figure 5 illustrates distances, average travel time and average border crossing times for Southbound traffic between the main towns on the NSC. Average travel and border crossing time vary considerably by:

- Type of cargo transported (e.g. break bulk, containers, tankers, perishable goods);
- Whether traffic is in transit or not;
- Whether computerised systems used at border posts are functioning; and
- Whether all paperwork is in order.

Figure 5: Distances and Journey Times for Southbound traffic on the NSC



Source: North South Corridor Pilot Aid for Trade Programme.

From figure 5 it is evident that a road journey from Kolwezi (in the DRC) to City Deep (in Johannesburg, South Africa) takes an average of 15-20 days for general cargo (cargo that is not refrigerated or dangerous), with 10-15 days in down time at border crossings. If the transporter chooses the route through Botswana his pay load will be restricted because the ferry at the Kazungula border across the Zambezi has a maximum Gross Vehicle Mass (GVM) of 45 tons, compared to the maximum of 56 tons for the entire road network. Furthermore, the journey time is longer, and the time saved at border crossings is minimal, if any.

Some transporters using the Botswana route are bypassing the new bridge at Katima Mulilo and then coming back east into Botswana via Ngoma. Despite the longer distance and additional border crossing (with associated border charges), some transporters reduce costs by avoiding the waiting times associated with the Kazungula ferry. Standing costs for a 56-ton varies between US$ 200 and US$ 400 a day, depending on the configuration of the vehicle.

Trucks coming from Malawi move to City Deep from where cargo is despatched to seaports in South Africa or Mozambique. Trucks must cross the suspension bridge over the Zambezi at Tete in Mozambique, which is in urgent need of repair, or replacement. A maximum GVM of 48 tons applies at this bridge, which implies that all road traffic from Malawi to South Africa (which is the route used mainly for Malawi imports and exports) will be carried on trucks with a GVM of 48 tons, which add significant trade costs to Malawi.

Although the times and distances for Malawi traffic are not shown in figure 5, a similar story prevails – the distance between Lilongwe and City Deep is around 1 900 kilometres which, travelling at an average speed of 60 kilometre per hour and driving at 8 hours per day, should take less than 4 days. However, the maximum number of journeys a truck can do on this route, if all, is 2 a month, with most time spent waiting rather than travelling.

The easiest and quickest way to reduce the costs to transport along the NSC is to reduce journey times and this can be done through reducing time spend at border posts, which still act as the greatest impediment to regional trade and travel. Various initiatives are on-going across the continent to convert two-stop borders into OSBPs that will alleviate excessive time losses at inland border posts. Optimum benefits, however, will only be obtained if hard and soft infrastructure inefficiencies are addressed simultaneously along the entire road network.

c) Border Posts

The high costs of transport along the NSC can in main be attributed to the costs associated with crossing borders. Cross-border road transport operators move through various border posts on-route from Durban to the DRC and Tanzania. Table 14 depicts the strategic border posts located along the NSC.

Table 16: 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

Border Post	Countries Sharing border	OSBP Candidate
Kazungula	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

Table 17 illustrates time delays at the Chirundu border post. Information was extracted from a document, published by the North South Corridor Pilot Aid for Trade Programme.

Table 17: Border Post Delays – Chirundu Border Post

Vehicle Types	Travel Direction	Delays (in hours)
Passenger cars, buses, mini-buses, light vehicles	North-bound	1
	South-bound	1
Refrigerated trucks, oil tankers	North-bound	28,5
	South bound	7
Heavy trucks, Containerised trucks	North-bound	40,5
	South-bound	20,5

Source: North-South Corridor Pilot Trans World Africa. May/June 2014

Refrigerated trucks and oil tankers moving in a northerly direction experience time delays of up to 28,5 hours at the Chirundu border, while heavy and containerised trucks, moving in the same direction, are delayed even longer (40,5 hours).

Similar time delays are experienced at other borders along the NSC due to the continued existence of various hard and soft infrastructure constraints. The findings of many research studies into border post delays show that the most effective way to reduce border post delays is to improve the efficiency of border post processes, i.e. through transforming two-stop borders into OSBPs. Several OSBP projects have been approved for implementation along the NSC. As indicated in table 16, the Songwe, Victoria Falls, Kazungula, Mchinji 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 post* was designated as a one-stop border post, recent improvements at this border have not followed a one-stop border post design. The border is still operating as a traditional two-stop border post and there are no known plans to change the way the border post operates. The Government of the DRC, using its own resources and with assistance from the international community, has constructed a new border post on the DRC side of the border, located eleven kilometres into the DRC from the actual border barrier with Zambia. Investments in infrastructure have also taken place on the Zambian and DRC sides of the border through a Public-Private-Partnership (PPP) with a foreign investor. The concessionaire charges rates / tariffs for the use of the new border post facilities (on both sides (around $230 for a single crossing for a seven-axle truck), whether south or north bound, loaded or empty. (Trademark Southern Africa. 12)

Listed below are examples of constraints experienced at the Kasumbalesa border post:

- Poor condition of the road from Chililapombwe (the border town) to the border post;
- Limited pre-clearance of goods;
- Border not open all day round (24/7);
- Lack of skilled resources; and
- Existence of many informal traders selling all kinds of goods (e.g. electronic appliances, agricultural produce, hazardous goods, heavy mining machinery and parts and fuel) obstruct entry to the border (https://www.nepad.org/news/towards-effortlessly-moving-people-and-goods-across-borders:).

Another functioning OSBP, the ***Chirundu border*** is also not immune to episodes of dysfunction and this result in long delays and chaos at the border (see table 16). Some of the challenges experienced at Chirundu border 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/).

To improve ICT connectivity a contract was awarded to a private sector company (Liquid Communications) to lay a fibre optic cable between Zambia and Zimbabwe sides of the border. Fibre has been laid to connect all points on the Zambian and Zimbabwean sides of the control zone. However, the commissioning of the fibre has been delayed due to refusal by the Government of Zimbabwe to lay a fibre across the bridge to link the two sides of the control zone.

Construction activities at the ***Kazungula border post*** has been facilitated by a tripartite arrangement between Botswana, Zambia and Zimbabwe on the NSC as part of a corridor infrastructure improvement programme to enhance regional trade and integration. Construction activities at the Kazungula border post is on-going and includes the building of a road / rail tolled bridge with a span of 923 meters over the Zambezi river, border facilities in each country and around 10 kilometre of bridge approach and access roads. This project is due for implementation in 2020.

Progress towards transforming ***Beitbridge border post,*** the busiest inland border in the SADC, both in terms of commercial traffic and the movement of people, is noted in the following achievements:

- Development of OSBP master plan by the Department of Public Works in South Africa to re-develop the Beitbridge border post;
- Establishment of joint institutional structures in South Africa and Zimbabwe;
- Development of an OSBP agreement and Joint Operational manual (that still awaits finalisation);
- On-going construction facilities on the Zimbabwean side of the border that incorporates:

- Building of new terminals for each vehicle category which are correctly sized;
- Adequate vehicle parking areas and feeder roadways;
- Purchasing of the latest generation of cargo equipment to allow for faster inspection of cargo and the detection of fraud, contraband and potential threats;
- Improvement and expansion of existing buildings to accommodate new equipment for the various clearing processes;
- New housing development in the town of Beitbridge; and
- New facilities for informal traders.

According to literature sources at hand, construction of terminals and buildings on the Zimbabwe side of the border are expected to be completed within 24 months (https://www.businessinsider.co.za/beit-bridge-developments-2020-12).

d) Rail transport

Rail traffic along the NSC is characterised by the export of mining and agricultural products and the importation of manufactured goods. The rail transport system operates at well below its original design capacity. Some railway sections require refurbishment and upgrading and consequently suffer from poor efficiency and hence capacity constraints. Furthermore, the operation performance of railways is undermined by speed restrictions, a shortage of railway wagons and locomotives and a lack of operating capital for the purchase of spares and fuel.

Except for the South African dedicated bulk lines, the regional freight transport sector is characterised by long distances, low volumes and relatively high railway tariffs. It is also generally regarded as inflexible in relation to schedules and poor inter-modality. The availability of rolling stock is still low compared to other regions of the world and disjointed railway operations together with poor tracks and rolling stock results in delays, unreliability and increased transport costs.

The regional railways are all built to the Cape gauge of 1,067 mm between the rails, except for the railway system in Northern Tanzania and the Kenyan / Ugandan systems which have a 1,000 mm gauge. This means that there is almost full railway inter-connectivity within the Eastern and Southern Africa region.

Competition between railway companies in the SADC is open and unregulated and linked to the relative performance of the regional ports. The choice of railway route is generally governed by the shortest distance and not necessarily by the lowest cost. This has led to some unfair and uncompetitive practices by private sector railway concessionaires.

Axle loads are generally 15 – 18 tons in the region, up to 26 tons in South Africa. The findings of previous studies reveal that to make rail more competitive with road, axle weights should not be less than 20 tons. This would allow a railway wagon to carry almost twice as much as a large combination road rig.

Given the loads carried and distances travelled, rail offers the obvious alternative to road transport along the NSC. The efficiencies of rail simply outweigh the costs and speed of road haulage. It, therefore, comes as no surprise that governments are looking to move rail-friendly freight from road to rail along corridors like this.

However, switching to rail is a complex decision for cargo owners. While existing state-owned entities and other operators are in place, the planning and regulation of the various rail systems differs in vision, content and implementation. The biggest factor contributing to delays in cross-border rail movement are not related to customs, immigration or other border-related procedures, but instead the lack of coordination among national (monopolistic) rail systems in the region.

Specifically, the problems relate to a lack of reciprocal access rights among national operators and a failure to coordinate operational planning. Locomotives from country A may not be allowed to operate on the network in country B because the operator of the network in country B cannot guarantee technical assistance to broken locomotives belonging to another operator. As a result, locomotives often stop at the border and hand over to another operator, leading to long interchange delays.

An analysis on the North-South corridor by Africa Infrastructure Country Diagnostic (AICD) in 2011 indicated that a rail journey of 3 000 km from Kolowezi (DRC, near the Zambian border) to Durban can take up to 38 days to complete, of which 29 days are spent at the border due to delays – resulting in an effective speed of less than 4 km/h. Reducing border-related delays will have a huge impact on the viability of rail for regional traffic. (Infrastructure News. 2016)

3.2.1.3 Institutional Arrangements

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).

Since the NSC links 3 RECs (COMESA, EAC and SADC) it creates complexity with regards 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.

3.2.1.4 Corridor Performance

Although the NSC is widely regarded as one of Africa's most important trade routes, corridor performance is undermined by several operational and infrastructure inefficiencies. To start off with, the NSC is still too heavily skewed in favour of exports. Most cargo transported by road to the countries up North (e.g. Tanzania) is project-work related and include items such as engineered goods, mining equipment and chemicals. Furthermore, too little containerised cargo is being moved along the NSC.

A major frustration expressed by South African transport and logistics companies is that transported loads are only carried the one way, with empty trucks returning to South Africa. It is difficult to return with a full load as South Africa imports very little from the rest of Africa. Identified by their number plates, South African vehicles are also frequently targeted by criminals. The thinking goes that South African transport and logistics companies carry more money on-board their vehicles than their SADC counterparts (Infrastructure News. 2016).

The poor quality of infrastructure along certain sections of the NSC (notably in Zimbabwe and the DRC), lengthy border post delays at most strategic borders (e.g. Beitbridge and Kasumbalesa), excessive cross-border charges in some countries (e.g. DRC), long delays at the ports of Durban and Dar es Salaam and the absence of a dedicated CMI impacts negatively on transport and logistics costs along this strategic trade corridor, which are ultimately passed on to the end consumer.

For the NSC to function more efficiently and effectively, so that costs of transport are reduced, hard and soft infrastructure inefficiencies should be improved simultaneously. While improvements to physical structures are required (roads, bridges and border posts) there is also a need to aligning and harmonising road transport policies, procedures and regulations to facilitate trade flows along the NSC.

3.2.1.5 Corridor Safety / Security

Regional freight traffic is usually carried in large double trailer, seven-axle combination rigs (interlinks), with a maximum GVM of 56 tons. Given the competitive nature of the road transport industry, heavy goods vehicles are often overloaded to drive costs downs. Overloading as a common problem along the NSC. This practice does not only damage road infrastructure but also increase the likelihood of road accidents.

Further to overloading, corruption and bribery is rife on the NSC, especially where law enforcement operations are conducted at border posts. It is almost certain that underhand payments facilitate faster and quicker passage through every checkpoint, a case that defeats the very purpose of the existence of law enforcement. Corruption partly contributes to accidents, the importation of counterfeit goods (e.g. cigarettes) and human trafficking along the NSC.

Road safety is further compromised by the absence of formal driver resting facilities (truck stops) along the NSC. Aside from the South Africa, the NSC does not have formal driver resting facilities, although some informal facilities are found. As a general rule of thumb, the further North from South Africa one goes, the less developed truck stop facilities become.

3.2.1.6 Major Infrastructure Bottlenecks

Major impediments identified and experienced on the NSC are listed below. Those impediments that are very closely related or have very similar impact have been grouped together to prevent repetition.

Road and Rail Infrastructure

- Poorly maintained road and railway sections;
- Missing links along some sections of the NSC road and rail networks; and
- Inadequate infrastructure at border posts (e.g. inter-modal inter-change infrastructure, lack of signage, insufficient parking, lack of separate lanes for passenger and freight vehicles).

Border posts

- Limited operational hours at most strategic border posts;
- Repetitive nature of cross-border processes;
- Severe traffic congestion;

- High border crossing fees; and
- Unsafe environment at border posts for transporters waiting to cross the border.

Management

- Absence of a centralised CMI and many countries form part of the NSC brings another level of complexity to the management of the corridor.

Ports

- Lack of capacity at the ports of Durban and Dar es Salaam, leads to congestion in the clearance of goods within seaports; and
- Punitive storage charges at the port of Durban are expensive.

Information

- Real-time data on traffic flows along the NSC is not readily available due to the absence of harmonised / integrated ICT systems to receive, process and disseminate corridor data to interested parties.

Security

- Serious occurrences of corruption and bribery takes place on the NSC.

Human resources

- Lack of skilled personnel serving at border posts and a lack of management and governance skills on NSC undermine the efficiency of the NSC.

3.2.1.7 Major Corridor Initiatives

North South Corridor Aid-for Trade Programme

The Tripartite alliance has replaced the traditional project and MS approach to corridor development with a regional approach. While the construction and rehabilitation of surface transport infrastructure along regional transport corridors in the past has been done as separate and disjointed projects, on a national, instead of a regional basis, the North South Corridor Aid-for Trade (NSC AfT) programme was designed in a holistic manner to address transport constraints in a sequenced and multi-modal way.

Against this background, the NSC-AfT Programme comprises inter-related projects that address road infrastructure; road transport facilitation; management of railway systems and rail infrastructure; physical and procedural improvements at border crossings; port infrastructure; management of air transport; and energy interconnectors. This strategic regional trans-boundary project involves several countries, including Botswana, DRC, Malawi, Mozambique, Tanzania, South Africa, Zambia and Zimbabwe.

- **North-South Corridor Road Project**

The NSC road network comprises the following road (and rail) networks:

- Durban-Johannesburg-Beitbridge-Harare-Chirundu-Kafue-Lusaka-Kitwe-Kasumbalesa-Lubumbashi-Kolwezi;
- Kapiri Mposhi-Serenje-Nakonde-Mbeya-Iringa-Morogoro-Dar es Salaam;

- Mokopani-Martins Drift-Palapye-Francistown-Nata-Kazungula-Livingstone-Kafue
- Beitbridge-Bulawayo-Livingstone; and
- Harare-Nyamapanda-Tete-Mwanza-Lilongwe-Kasungu-Mzuzu.

South Africa, as the project leader for the NSC-AfT programme has taken the lead in establishing working relationships with various role-players. The signage of the NSC MoU by SADC Transport Ministers in July 2017, which serves as the inter-governmental framework for the management of the NSC and the delivery of cross-boundary infrastructure, represents a big step to ensuring this major initiative moves forward.

According to information displayed on the NEDPAD website, several hard and soft infrastructure issues and projects are currently being addressed. Various projects are at various stages of the project life cycle. The completion of Beitbridge border post has been prioritised by the Government of South Africa. (https://www.nepad.org/north-south-corridor-roadrail-project).

- **North-South Corridor Rail Pilot Project**

The existing railway line along the NSC stretches over 3000 km, from Durban in South Africa through Zimbabwe and Botswana and links to the DRC passing through Zambia. This railway line is the region's main international rail gateway for transporting inbound and outbound cargo.

The North-South Rail Corridor pilot project acts as a blueprint to grow rail traffic (freight and passengers) along the NSC and aim to reduce the cost of rail transport through better pricing and service strategies. This major trans-boundary project, which is financed by the SADC Infrastructure Project Preparation Fund and managed by the Development Bank of Southern Africa (DBSA), consists of a series of priority projects in the several categories, i.e. infrastructure rehabilitation, rolling stock, signalling and communications, maintenance facilities and equipment, and training and skills development.

Progress in moving this initiative forward include the signing of a Memorandum of Understating (MoU) between the rail operators on the NSC, including Zambia Railways Limited (ZRL); Grindrod / Beitbridge-Bulawayo Railways (BBR); Société Nationale des Chemins de fer du Congo (SNCC); National Railways of Zimbabwe (NRZ); Swaziland Railways (SR); Transnet and Botswana Railways (BR). (Tralac, 2017).

Furthermore, the NEPAD Agency is engaging with the SADC Secretariat and the NEPAD Business foundation (under SADC request) to provide technical assistance on the implementation of the North South Corridor Railway Network. Part of the work includes a study on the adoption of a suitable pricing / revenue sharing model and conclusion on the harmonisation of policy, legal and institutional aspects across all stakeholder countries.

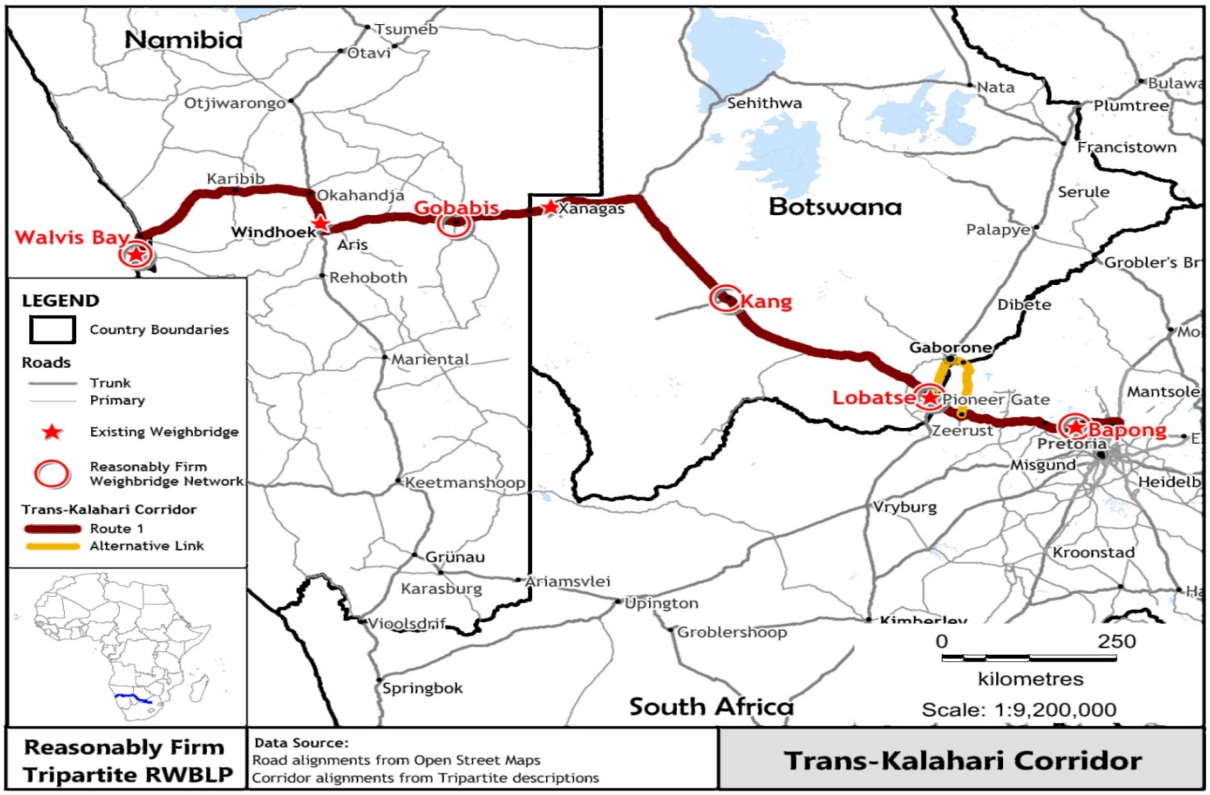
3.2.2 Trans Kalahari Corridor

3.2.2.1 Introduction

The TKC connects three countries in the SADC namely Namibia, Botswana and South Africa and stretches over 1 900 kilometres from the port of Walvis Bay through Botswana to South Africa where it connects with the Maputo corridor in Pretoria. 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 Orange corridor.

Figure 6: Trans Kalahari Corridor



Source: https://tttfp.org/corridors/north-south-corridor-2/

3.2.2.2 Infrastructure Components of the TKC

a) Seaports

➢ **Port of Walvis Bay**

The port of Walvis Bay is Namibia's largest commercial seaport, and the only seaport along the TKC. This port is currently positioning itself as a major trans-shipment port in the SADC and is from a geographical point of view ideally positioned at the preferred route to emerging markets in Botswana, Zambia, Zimbabwe, Angola, Malawi and the DRC.

The construction of the Port of Walvis Bay's New Container Terminal on reclaimed land commenced in mid-2014 and was completed on 24 August 2019. The New Container Terminal has a capacity of at least 750,000 TEUs per annum, whilst ample space for optimisation and expansion of the initial facility exists. The terminal not only provides increased container handling capacity in the Port of Walvis Bay but also increase the port's bulk and break-bulk handling capacity by freeing up the existing container terminal to utilized as a multi-purpose terminal. (https://www.ship-technology.com/projects/port-walvis-bays-new-container-terminal/).

Infrastructure upgrades and expansion at the port of Walvis Bay are being supplemented with the maintenance of the 4 Walvis Bay corridors that link the ports of Walvis Bay and Lüderitz to several SADC countries by road and rail networks. As such, the Gauteng market in South Africa can be reached via the TKC instead of going via Durban or Cape Town, saving 7 to 11 days of transit time. Transit time from Antwerp to the Port of Walvis Bay is 17 days. (https://www.namport.com.na/ports/welcome-to-the-port-of-walvis-bay/522/). Table 18 provides more information on the port of Walvis Bay.

Table 18: Information about the Port of Walvis Bay

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.
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. Table 19 shows TKC transit times by road.

Table 19: Transit Table for the Trans Kalahari Corridor

TKC Transit Times	Travel time (days)	Customs Clearance	Total Transit Time (days)
Walvis Bay – Gaborone (Botswana) ➢ Day 1: Walvis Bay to Mamuno (1,000 km) ➢ Day 2: Mamuno to Gaborone (767 km)	2	30 min	2
Walvis Bay – Gaborone (Botswana) ➢ Day 1: Walvis Bay to Mamuno (1,000 km) ➢ Day 2: Mamuno to Gaborone (767 km)	2	30 min	2

Source: Walvis Bay Corridor Group.

c) Border Posts

d) Border Posts

The TKC run through 3 countries in the region, namely Namibia, Botswana and South Africa. The following border posts are located along 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. Progress towards establishing a OSBP is noted in the signing of a MoU by the governments of Botswana and Namibia to establish the Buitepos / Mamuno OSBP.

Table 20: Border Posts along the Trans Kalahari Corridor

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

Source: Table created for study

None of the above-mentioned border posts are currently operating 24 hours per day. Although customs clearance at the above borders is efficient (takes only 30 minutes), other border clearance processes (e.g. immigration, law enforcement checks) takes much longer. For this reason, time delays are still experienced at the TKC border posts.

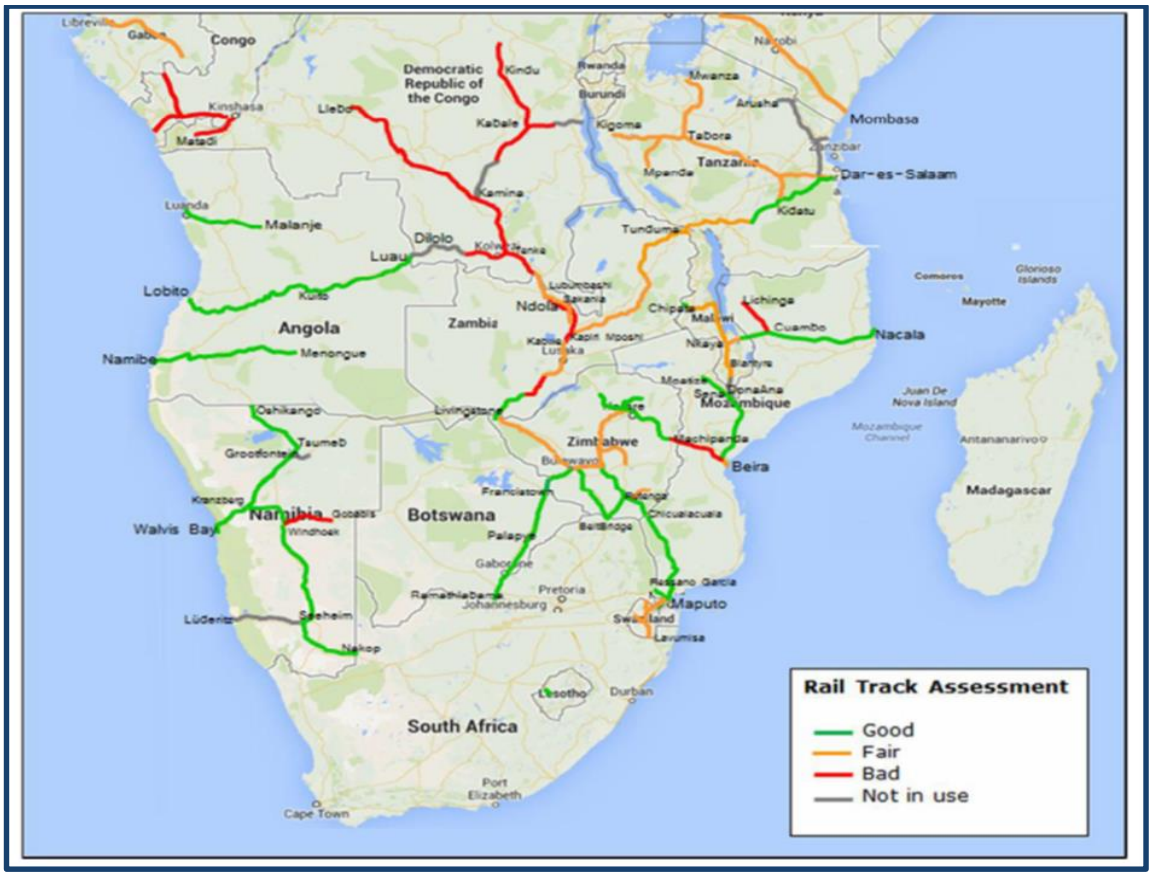
d) Rail Transport

The existing railway network along the TKC is characterised by several missing links. As a result, cross-border traffic cannot move in trains from the port of Walvis Bay to Gauteng province in South Africa where the TKC terminates. Currently, rail cargo is transported from the Walvis Bay to Gobabis, at which point the rail line ends. As a result, rail traffic is off-loaded

onto road vehicles, with the remainder of the journey done by road to Gaborone or Gauteng. Since the rail network is incomplete, intermodal transport (road / rail) is seldom used by transporters. Okahandja, Gobabis, Karabib, Usakos, Walvis Bay and Swakopmund are examples of towns located along the TKC.

Figure 7 illustrates the African rail network graphically. The lack of railway connectivity between Namibia, Botswana and South Africa is clearly visible from the illustration.

Figure 7: African Railway Network



Source: Transnet. 2017

In order to restore rail transport and create a seamless railway line along the entire TKC, Botswana Railways has signed a MoU with its Namibian Counterpart state owned Trans Namib during the early months of 2019 to facilitate the joint development of the Trans-Kalahari railway, that complements the existing TKC at an estimated cost of US $9.5bn. This new railway line will stretch from the port of Walvis Bay and traverse through Namibia and Botswana on-route to Gauteng province in South Africa. https://constructionreviewonline.com/2019/01/construction-of-us-9-5m-trans-kalahari-railway-to-commence/.

3.2.2.3 Institutional Arrangements

The Trans Kalahari Corridor Management Committee (TKCMC) is the Executive Body of TKC, established on 1 March 2007 and assigned with the responsibility to manage corridor operations. This body comprises of public and private sector stakeholders under a Public-Private Partnership (PPP) arrangement that has its basis in a MoU on the development and management of the TKC. Inter alia, through the implementation of integrated and seamless transport infrastructure that facilitates the movement of goods and people on the TKC.

3.2.2.4 Corridor Performance

Over the years the TKC has established itself as an efficient transport corridor. The entire road network is surfaced and in a good condition. Massive infrastructure programmes at the port of Walvis Bay, notably the construction and operationalisation of a new container terminal, as established Walvis Bay as a strategic gateway to the West. This port is congestion free and its facilities are of a world-class standard, which ensures that cargo is handled reliably and safely.

The Mamuno / Buitepos border post is open from 07:00 to 24:00, which alleviates hold-ups at this border crossing. Although this border has been prioritised as a OSBP candidate, the Pioneer Gate / Skilpadshek border that links Botswana to South Africa will remain a traditional two-stop border post.

Since only one border along the TKC will become a One Stop Border in future, corridor efficiency will be compromised. Time savings at the Mamuno / Buitepos border (due to border post improvements) will be lost since excessive time delays will still be experienced at the Pioneer Gate / Skilpadshek border. This illustrates the importance of addressing corridor inefficiencies (in this instance border post delays) at the same time to increase corridor efficiency between origin and destination points.

3.2.2.5 Corridor Safety / Security

Although the TKC road network is in a good condition, the entire road network is not a dual carriage way, which results in bottlenecks and accidents along the corridor. Corridor safety is also compromised by a shortage of formal trucks stops along the TKC, equipped with refuelling, repair and rest facilities for commercial transporters. In the absence of truck stops, drivers often park their vehicles on the shoulder of the road that increases the risk of accidents and robberies.

Further to the above, road safety is aggravated by a lack of fencing. Stray animals contribute to road accidents and fatalities. To address this problem, the governments of Botswana and Namibia has urged communities to take responsibility for their livestock by keeping them in designated places. Joint road safety campaigns, which bring together law enforcement officials from Botswana, Namibia and South Africa, is also held on a regular basis. The purpose of these campaigns is not only to impose penalties on non-compliant drivers, but also to educate them on road safety.

Another factor that compromises road safety is the continued existence of corrupt practices at border posts. Recorded incidents exist of transporters paying bribes to border officials to expedite border clearing processes. Furthermore, contraband trade (e.g. especially in cigarettes) results in more detailed freight searches at inland borders, with a resultant increase in time spend at border posts.

3.2.2.6 Major Infrastructure Bottlenecks

Major impediments identified and experienced on the TKC are listed below.

Road and Rail Infrastructure / Networks

- Inadequate rail infrastructure and intermodal interchange infrastructure results in poor rail connectivity with MS, increased road congestion and damage to the TKC road

network due to the conveyance of commodities ideally suited for conveyance by rail (e.g. steel and copper) in road vehicles;
- A lack of fencing along sections of the TKC (especially in Namibia and Botswana) poses a threat to road safety and increase road accidents.

Border posts

- The border posts along the TKC are not open 24 hours per day, which impede the seamless movement of cross-border traffic through TKC borders;
- In the absence of integrated ICT systems at borders result in duplicated border processes and an increase in time spent at inland posts;
- Bribery at TKC borders compromise corridor safety and security.

Information

- Real-time data on traffic flows along the TKC is not readily available. This compromises decision-making processes since decisions are often based on proposals that are not supported by facts (real-time data).

Security

- A lack of fencing, high occurrence of road vehicles carrying heavy loads and the absence of formal truck stop facilities along the TKC impair corridor safety and security.

Ports

- The port of Walvis Bay is congestion free and characterised by competitive turn-around times, first-class infrastructure and equipment, competitive pricing structures and minimum delays.

Human resources

- Lack of skilled personnel at border posts results in duplicated processes and time losses at inland borders.

3.2.2.7 Major Corridor Initiatives

a) Walvis Bay Wellness Service

The WBCG has established a network of roadside wellness centres across Namibia in collaboration with industry partners and the Ministry of Health and Social Services. These centres are containers that have been converted to medical clinics.

The purpose of wellness centres is to provide on-site biometric wellness screening services to long-distance truck drivers. This initiative, however, also spreads beyond the trucking industry into aligned industries with the aim to raise more awareness about Human Immunodeficiency Virus (HIV) prevention as well as to promote healthy lifestyles amongst mobile populations and general transport workers through the dissemination of behaviour change and communication information. Listed below are examples of services provided as roadside wellness centres:

- HIV counselling and testing;
- HIV treatment and care services;
- Basis primary health care;
- STI screening and treatment;
- TB screening; and
- Risk reduction counselling

The benefits associated with this initiative will be maximised if wellness centres are deployed along the entire stretch of the KTC.

b) New Container Terminal at Walvis Bay Port

The construction of the Port of Walvis Bay's new container terminal on reclaimed land commenced in mid-2014 and commissioned on 24 August 2019, bringing Namibia a step closer towards becoming the logistics hub for the SADC. This mega project entails the creation of 40 hectares of new land reclaimed from the bay within Namport's current port jurisdiction.

The reclaimed land is linked to the existing port land by a walkway (ramp). A modern container terminal has been built on reclaimed land and consist of quay walls, paved areas, buildings, roads, railway lines, ship-to-shore quay cranes and rubber-tired gantry cranes. The New Container Terminal has a capacity of at least 750,000 TEUs per annum, whilst ample space for optimisation and expansion of the initial facility exists. (https://www.namport.com.na/mega-projects/24/).

Further to increasing container handling capacity in the Port of Walvis Bay, this new development also increases the port's bulk and break-bulk handling capacity by freeing up the existing container terminal to be utilised as a multi-purpose terminal. Three new berths have been added to the new container terminal. Two berths (numbers 10 and 11) accommodate container vessels, while another (berth 9) is the new passenger liner berth.

The Port of Walvis Bay has recorded a throughput of 115 146 (TEU) in eight months of operation and anticipates an upward growth trajectory despite the effects of Covid-19. Another milestone for the port was its record-breaking 46 berth moves per hour on the Maersk Lunz during the early months of 2020. (https://www.namport.com.na/news/815/Milestone-celebration-for-Port-of-Walvis-Bay/).

c) SADC Gateway Development

Spurred by inefficiencies at the Walvis Bay port (e.g. inability of port to accommodate large-scale bulk, break-bulk and liquid-bulk volumes), and acknowledging that several mega projects in the SADC (e.g. building of the Trans Kalahari Railway Line, development of Namibia's crude oil industry and large-scale export of Namibian mining product) depends on the development of new terminals, NAMPORT commenced with the SADC Gateway port in February 2015.

This mega-project, which is valued at approximately N$60 billion, consists of developing a 1,330-hectare plot of currently undeveloped land in the town of Walvis Bay. The water area in front of this land will be developed to accommodate port operations, whereas the land will be developed to house various cargo handling terminals. (https://www.namport.com.na/mega-projects/north-port-of-walvis-bay-sadc-gateway-development/450/).

The SADC Gateway development project will be implemented in a phased approach, in the following sequence:

- **Phase 1 – Construction of Liquid Bulk Terminal**

Phase one, which involves the building of an oil tanker, jetty, petroleum pipelines and an oil storage facility, commenced on 30 March 2015, for commissioning by 2018.

- **Phase 2 – Construction of Long Terminal**

Phase 2, which consists of a new LNG receiving jetty together with access trestle and product pipeline, has been put on hold.

- **Phase 3 – Construction of a Multi-Purpose Dry Bulk Terminal**

The feasibility study for the construction of a multi-purpose bulk terminal has been completed.

Upon completion the SADC gateway project will offer the following facilities / services to port users:

- World-class ship and rig repair yard, plus an oil and gas supply base;
- Huge dry bulk terminal (exceeding 100 million tonnes per annum);
- Car import terminal / ro-ro terminal and passenger terminals;
- Container terminal (if required in future);
- Liquid bulk terminal with very large crude carrier berths;
- Multi-purpose and break-bulk terminals;
- Backup storage areas and/or dry ports;
- Small craft harbour with port control tower;
- Small boat marinas; and
- New high capacity rail, road, pipeline and conveyor link to the municipal heavy industrial area behind Dune 7 (located 7 miles from Walvis Bay).

3.3 Conclusion

The NSC and TKC traverse through various countries in the SADC and link land-locked MS with seaports in the western (Angola, Namibia) and eastern parts (South Africa and Mozambique) of the region. Despite their importance in achieving regional and continental aspirations (e.g. regional integration), both corridors are plagued by several hard and soft infrastructure challenges that culminate in poor corridor performance and high cost of doing business in the region.

To address challenges facing the cross-border environment, several structures in the SADC and the Continent at large have approved various infrastructure project/ programmes. Many of them have not yet realised much progress, owing to several reasons, including, declining public sector resources allocated to infrastructure development. The NSC and TKC will only establish themselves as key development corridors that facilitate trade and integrate regional economies once hard and soft infrastructure impediments that obstruct seamless cross-border traffic movement have been attended to in a similar fashion.

4. CROSS-BORDER VOLUMES AND COMLPIANCE

4.1 Introduction

The previous chapter alluded to the existence of several infrastructure impediments along the NSC and TKC that culminate in corridor inefficiencies (e.g. delays and high transportation costs) and poor corridor performance. Hard and soft infrastructure challenges also lead to unreliable and unpredictable trade flows and the high cost of doing business in Africa.

Infrastructure challenges are aggravated by a shortage of accurate data on cross-border flows along key transport corridors (including the NSC and TKC). In the absence of reliable corridor data, road transport operators cannot pre-plan and adjust their journeys according to traffic congestion, while policy makers are often required to base decisions on proposals that are not supported by facts (data). As a result, higher order infrastructure needs are often not attended to in the short-term, which increase the cost of doing business in the region.

On a positive note, a few on-going reforms in the SADC aim to improve the availability and integrity of corridor data. The TKSC, in collaboration with the C-BRTA, is currently developing a corridor monitoring system for the TKC to monitor performance along the entire corridor. Completed milestones include the development of Corridor Performance Categories and Indicators, continuous engagements with corridor role-players and on-going activities in support of piloting exercises.

Another initiative unfolding in the Tripartite is witnessed in the development of a web-based corridor performance monitoring system that measures border crossing and route trucking times for several corridors in the East and Southern African region. This system is useful insofar it performs detailed monitoring at specific locations along several transport corridors in the Tripartite. This system, however, does not cover the entire corridor stretch, between origin and destination points.

Given the shortage of reliable corridor data, information on operator compliance is also not readily available. Even though law enforcement inspections are conducted at several intervals along regional road transport corridors, information gathered from inspections (e.g. transgressions) is in most instances captured manually by law enforcers and not shared with interest groups.

The silo approach maintained by corridor role-players (e.g. regulatory authorities, law enforcement agencies) should be abandoned and replaced with a collaborative approach to enable the online capturing, processing and sharing of real-time corridor data with interested parties. Section 4.x deals with on-going initiatives unfolding in the SADC that foresees the establishment of online platforms that will, upon completion, share intelligence on traffic and trade volumes and operator conduct regional road transport corridors with interest groups.

4.2 North-South Corridor

As indicated in section 3.2.1 the NSC stretches from Dar es Salaam to Durban in South Africa over an approximate distance of kilometres. As per the stipulations of the SADC PTCM, bilateral and multi-lateral agreements between MS dictate the number of cross-border permits issued between MS in the region. Section 4.2.1 provides more information on cross-border permits issued by the C-BRTA to South African cross-border road transport operators who conduct business for reward in MS that are bounded together by the NSC.

4.2.1 Cross-Border Permits issued by the C-BRTA.

In South Africa, the C-BRTA is assigned with the responsibility to improve the cross-border flow of freight and passengers, by road. Market access is regulated through the issuing of cross-border permits, according to the stipulations of legal frameworks (bilateral road transport agreements and MoU's between MS).

To date, the C-BRTA has signed bilateral agreements with Zambia, Zimbabwe, Malawi and Mozambique. Bilateral agreements are very much operational instruments meant to promote, facilitate and regulate market access. In this regard, bilateral agreements outline the conditions under which goods and passengers may be carried, as well as the number of permits that may be issued over a given route. The principle of reciprocity is applied during permit issuing processes. Essentially this means that regulatory authorities in each MS may not issue more permits than the maximum number, stipulated in bilateral agreements.

Further to bilateral agreements, the issuing of cross-border permits between South Africa and SADC MS is also guided by the following multi-lateral agreements:

- SADC Protocol on Transport, Communications and Meteorology; and
- SACU Memorandum of Understanding on Road Transport.

Table 21 reflects the number of cross-border permits issued by the C-BRTA to South African taxi, bus and freight operators, who conduct business in countries joined together by the NSC. Permits statistics are given for 2 financial years; namely: 2018 /19 and 2019 / 2020.

Table 21: C-BRTA Permits issued to South African Operators

NSC Country	Taxi		Bus		Freight	
	2019/2020	***2018/2019***	***2019/2020***	***2018/2019***	***2019/2020***	***2018/2019***
Botswana	853	612	164	98	186	163
Malawi	20	46	131	191	3038	2843
Zambia	14	26	42	49	10 591	11 268
Zimbabwe	14 435	11 092	970	1183	11 124	10 822
DRC	04	02	6	8	6 505	8 170
Tanzania					151	0

Source: C-BRTA

➢ **Cross-Border Taxi Movements**

Zimbabwe is by far the most popular destination in the SADC for South African travellers commuting in taxis. The number of permits issued by the C-BRTA for travel to Zimbabwe grew by more than 30% from 11 092 during FY 2018 / 19 to 14 435 in FY 2019/2020. The high number of travellers between South Africa and Zimbabwe can partially be attributed to the large number of Zimbabwean citizens, seeking economic (work) opportunities in South Africa.

Botswana is also a popular destination, with 853 permits issued to taxi operators for the cross-border conveyance of passengers between South Africa and Botswana during 2019 / 20. As indicated in chapter 3, Botswana emerged as a popular route for north-bound traffic along the NSC. Although the route through Botswana is slightly longer, less delays are experienced

along the road network in Botswana, hence the increase in cross-border movements through this country.

Unlike bus travel, minibus taxis are not subjected to fixed timetables or specified pick-up and drop-off points. Given the greater flexibility afforded to mini-bus taxi's, this mode is more popular for the conveyance of cross-border passengers, as noted in the figures given in table 21.

- **Cross-Border Bus Movements**

Zimbabwe is the most popular destination along the NSC for the conveyance of passenger by bus. The number of permits issued to bus operators decreased by around 18% from 1183 permits in 2018 to 970 in 2019.

- **Cross-Border Freight Movements**

Zimbabwe and Zambia are the most popular destinations for the conveyance of commodities between South Africa and the SADC. The number of permits issued for Zambia decreased slightly (around 6,4%) from 11 268 permits in 2018/19 to 10 501 permits in 2019 / 20. On the other hand, the number of permits for Zimbabwe increased by 2,8% from 10 822 in 2018/19 to 11 124 in 2019/20. Excessive time delays at the Kasumbalesa border post and high cross-border charges imposed on South African operators in the DRC are contributing factors for the decline in cross-border freight permits issued to the DRC.

4.2.2 Trade Flows

The shortage of accurate data on trade and traffic flows along regional road transport corridors is well-known and documented. The absence of a dedicated CMI, tasked with the responsibility to capture and consolidate data, as well as managing the complexities acing traffic flows on the NSC is regarded as one of the main reasons for the scarcity of corridor data,

To minimise this gap, the C-BRTA conducts a trade volumes study on an annual basis that provides consolidated information pertaining to trade volumes (in different units of measurement) and values (in South African Rand) of cross-border traffic passing through commercial border posts. Most of the trade between South Africa and SADC MS cross the following strategic border posts:

- Beitbridge, linking South Africa with Zimbabwe;
- Lebombo, linking South Africa with Mozambique;
- Maseru, linking South Africa with Lesotho; and
- Skilpadshek, linking South Africa with Botswana.

As already noted in previous sections of this report, most of the traffic movements along the NSC takes place in road vehicles. From the port of Durban, cross-border operators can exit South Africa through the Beitbridge border to access Zimbabwe or through the Skilpadshek (or any of the other 3 commercial borders) that link South Africa to Botswana.

4.2.2.1 South Africa / Zimbabwe Access along the North South Corridor

- **Beitbridge Border Post**

Table 22 discloses the trade volumes (in different units of measurement) and values (in South African Rand) to cross-border movements between South Africa and Zimbabwe between 2018 and 2019. Cross-border traffic passed through the Beitbridge border post. The text box below table 22 elaborates on the meaning of the different units.

Table 22: Trade Volumes and Values handled at the Beitbridge Border Post (2018 and 2019)

EXPORTS						
	Value (Rand)			Volume		
Units	**2018**	**2019**	**Year-on-Year**	**2018**	**2018**	**Year-on-Year**
CT	3 639		-100%	10		-100%
KG	39 635 321 077	36 976 766 544	-7%	2495248164	2 098 874 867	-16%
LI	2 382 152 659	4 542 069 585	91%	205465321,9	489 116 106	138%
MC	72 967 867	71 506 721	-2%	4342770,22	1 709 206	-61%
MW	132	300 609	227634%	2	169	8350%
NO	13 109 394 292	11 920 733 317	-9%	23973226	17 634 273	-26%
PR	154 428 394	151 310 723	-2%	1402447,43	1 358 342	-3%
SM	471 467	396 134 052	-16%	63313735,78	20 817 519	-67%
Total	**55 825 700 527**	**54 058 821 551**	**-3%**	**2 793 745 677**	**2 629 510 483**	**-6%**
			IMPORTS			
CT	14 124	1 847	-87%	100	4 298	4198%
KG	5 158 366 185	4 240 852 002	-18%	617 680 936	461 461 224	-25%
LI	1 684 724	7 945 099	372%	68 835	1 298 754	1787%
MC	13 719 533	23 539 339	72%	58 650	46 376	-21%
NO	570 930 521	849 323 911	49%	1 657 512	1 750 084	6%
PR	2 036 163	4 394 652	116%	2 073	4 890	136%
SM	19 286	4 504 914	23258%	1 563	1 157 335	73941%
Total	**5 746 770 536**	**5 130 561 764**	**-11%**	**619 469 669**	**465 722 961**	**-25%**

Abbreviation	Meaning	Example
CT	Carat	Diamonds
KG	Kilogram	Processed meat
LI	Litre	Fuel or liquids
MC	Microgram	Chemical compounds
NO	Number	Live animals
PR	Pair	Footwear
SM	Square metre	Carpets or tiles

Source C-BRTA 2019 (Trade Volumes Report)

Table 22 shows that 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. South Africa's total exports to Zimbabwe through the Beitbridge border posts documented around R55 825 700 527 (R55,8 billion) in 2018. In 2019, exports valued R54 058 821 551 (R54,1 billion) resulting in a decrease of 3%. Total volumes exported to Zimbabwe through Beitbridge border post amounted to 2 793 745 677 (2.8 billion) units of goods in 2018. In 2019, exports totalled 2 629 510 483 (2.6 billion) units, resulting in a 6% decline.

In 2018, South Africa imported R5 746 770 536 (R5,7 billion) worth of goods whereas in 2019, imports totalled R5 130 561 764 (R5,1 billion). This represents a decrease of 11%. Total volumes imported from Zimbabwe through the Beitbridge border post totalled 619 469 669 units of goods in 2018. In 2019, the figure dropped by 25% to 465 722 961 units of goods.

The severe imbalance of freight flows along the NSC (South Africa exporting more goods to Zimbabwe than it imports) adds to the cost of doing business along this strategic regional corridor. Due to the regular occurrence of empty hauls, transport costs along the NSC are almost double than the cost along other transport corridors where inbound and outbound traffic movements are equal. (Transport World Africa. May- June 2014:28).

A limitation of table 22 is that the statistics only reflect trade volumes and values moved along a section (Durban to Beitbridge border post) of the NSC. Given the absence of trade data (and values) for the entire corridor, it is not possible to derive meaningful conclusions from the statistics. Once again, this shortcoming illustrates the need to establish online platforms that captures, process and disseminates accurate data between origin and destination points.

4.2.2.1 South Africa / Botswana Access along the North South Corridor

- **Grobler's Bridge / Martins Drift Border Post**

Although four commercial border posts link South Africa with Botswana, the most direct link for traffic moving along the NSC is to exit South Africa at Musina (in the Limpopo province) at the Grobler's bridge / Martins Drift border, from where transit traffic moves on the Botswana road network, on-route to countries up North (e.g. Zambia and DRC).

Table 23 illustrates South Africa's total exports and imports volumes and monetary values that passed through the Grobler's bridge / Martin's Drift border posts between 2018 and 2019. The textbook below the table elaborates on the meaning of the different units.

Table 23: Trade Volumes and Values handled at the Grobler's Bridge / Martins Drift Border Post (2018 and 2019)

EXPORTS						
	Value (Rands)			Volume		
Units	2018	2019	Year-on-Year	2018	2019	Year-on-Year
CT	2 437	1 218	-50,0%	16	10	-40,8%
KG	16 403 017 728	14 991 101 993	-8,6%	1 863 091 353	2 023 158 519	8,6%
LI	1 851 748 429	317 554 120	-82,9%	228 820 064	31 845 393	-86,1%
MC	155 818 744	144 136 134	-7,5%	3 223 794	3 525 165	9,3%
MW	38 929		-100,0%	10		-100,0%
NO	6 958 447 976	5 930 057 326	-14,8%	14 482 207	121 713 328	740,4%
PR	149 345 168	133 601 710	-10,5%	2 197 807	1 812 824	-17,5%
SM	97 019 340	84 456 993	-12,9%	971 055 844	154 114 596	-84,1%
Total	**25 615 438 751**	**21 600 909 494**	**-15,7%**	**3 082 871 094**	**2 336 169 835**	**-24,2%**
	IMPORTS					
KG	2 036 508 599	2 699 827 736	32,6%	261 461 940	342 513 676	31,0%
LI	1 357 295	905 503	-33,3%	44 165	363 179	722,3%
MC	4 468 671	4 703 211	5,2%	5 973	1 274	-78,7%
NO	240 584 606	256 417 940	6,6%	84 799	103 985	22,6%
PR	71 673	977 240	1263,5%	2 960	6 075	105,2%
SM	17 329	20 521	18,4%	487	2 036	317,8%
Total	**2 283 008 173**	**2 962 852 151**	**29,8%**	**261 600 324**	**342 990 225**	**31,1%**

Abbreviation	Meaning	Example
CT	Carat	Diamonds
KG	Kilogram	Processed meat
LI	Litre	Fuel or liquids
MC	Microgram	Chemical compounds
NO	Number	Live animals
PR	Pair	Footwear
SM	Square metre	Carpets or tiles

Source C-BRTA 2019 (Trade Volumes Report)

South Africa has a healthy trade balance with Botswana, as depicted in table 23. South Africa's total exports processed at the Grobler's Bridge border post documented around R25 615 438 751 (R25,6 billion) in 2018. In 2019, exports decreased by 15,7% to R21 600 909 494 (R21,6 billion). Total volumes exported to Botswana through the Grobler's Bridge border post documented approximately 3.1 billion units of goods in 2018, while the figure in 2019 stood at 2.3 billion units of goods. This reflects a year-on-year decrease of around 25%.

In 2018, South Africa imported R2 283 008 173 (R2,3 billion) worth of goods whereas in 2019, imports were valued at R2 962 852 151 (R3 billion), recording an increase of approximately 29,8%. Total volumes imported from Botswana through the Grobler's Bridge border post in 2018 amounted to 262 million units, whereas South African imports increased by 31,1% in 2019 to 343 million units of goods.

The statistics in table 23 only reflect trade volumes and values moved along a section of the NSC (Durban to Grobler's Bridge border post). In the absence of reliable data along the entire corridor, it is not possible to determine which portion of cross-border volumes moving through the Grobler's Bridge border were destined for NSC countries (e.g. Zambia, DRC, Tanzania), and which portion was moving to the port of Dar es Salaam for exportation to foreign markets.

4.2.3 Operator Compliance Monitoring

Although roadside inspections are conducted at regular intervals along the NSC, updated information pertaining to operator compliance along the NSC, or any strategic road transport corridors for that matter, is not readily available. Law enforcement operations normally involve traffic police and law enforcement authorities (at national, provincial and municipal levels) that subject drivers of cross-border vehicles to administrative procedures, and in some instances, harassment, corruption and extortions. While many inspections points along the NSC are legal, some of them are not.

One reason for the scarcity of information pertaining to operator conduct lies in the fact that many law enforcement officials along regional road transport corridors still operate in silo's, each seeking to advance delivery of its own mandate. Since these players have little trust and confidence in each other, law enforcement checkpoints are characterised by a lack of coordination, cooperation and integration. To aggravate matters even further, most inspections along the regional corridors (including the NSC) are still conducted manually. In the absence of online corridor platforms that disseminate real-time corridor data, the findings of law enforcement checks (e.g. roadworthiness of vehicles, number of penalties issued) is not readily shared with public and private sector role-players.

The TTTFP is seeking to address this gap through the development of an integrated computer system, titled TRIPS, that will monitor quality regulation in the EAC-COMESA-SADC region through releasing relevant information pertaining to operator conduct and cross-border vehicles to regulatory authorities in SADC MS. The availability of real time info will enable regulators to record transgressions and to impose penalties on cross-border drivers / vehicles that do not meet prescribed quality and safety standards.

Guidelines for TRIPS have been designed, but not yet approved by all participating MS. Some countries in the region oppose the implementation of a single electronic platform that releases real-time data on cross-border movements and operator conduct in the Tripartite since they prefer to develop their own systems at national level, that are aligned to TRIPS. With regards to the harmonisation of ICT software / systems, limited progress is noted. Since a few MS still capture information manually, a lack of uniformity exists regarding the level of computerisation and scope of systems. Most countries in the SADC still use stand-alone ICT systems.

4.3 Trans Kalahari Corridor

4.3.1 Cross-Border Permits issued by the C-BRTA.

The TKC stretches from the Walvis Bay port in Namibia and cross the territories of Botswana and Namibia to end in South Africa. In the absence of a formal multilateral agreement between South Africa and its neighbours (Botswana and Namibia), the South African Customs Union (SACU) MoU is used as a guideline in decisions surrounding permit issuing processes.

Table 24 shows the number of cross-border permits issued by the C-BRTA to South African cross-border operators (freight and passengers) who applied for cross-border road transport permits during 2018 and 2019.

Table 24: C-BRTA Permits issued to South African Operators

NSC Country	Taxi		Bus		Freight	
	2019/2020	***2018/2019***	***2019/2020***	***2018/2019***	***2019/2020***	***2018/2019***
Botswana	853	612	164	98	8 263	7 886
Namibia	102	164	41	35	4 920	4 931

Abbreviation	Meaning	Example
CT	Carat	Diamonds
KG	Kilogram	Processed meat
LI	Litre	Fuel or liquids
MC	Microgram	Chemical compounds
NO	Number	Live animals
PR	Pair	Footwear
SM	Square metre	Carpets or tiles

Source: C-BRTA

- **Cross-Border Taxi Movements**

Most cross-border taxi movements along the TKC are destined for Botswana. The number of taxi permits to Botswana increased by approximately 39% from 612 in 2018 to 853 in 2019. Taxi permits for Namibia reflected a decrease of almost 38% from 164 permits in 2018 to 102 in 2019.

- **Cross-Border Bus Movements**

The demand for cross-border bus services to Botswana and Namibia increased during the period under review. Cross-border bus permits for Botswana increased significantly by 67%, while bus permits to Namibia increased marginally from 35 permits in 2018 to 41in 2019.

- **Cross-Border Freight Movements**

The demand for cross-border freight services to Namibia is far greater than for Botswana. Cross-border permits to Namibia decreased slightly from 4931 (2018/19) to 4920 (2019/20). On the other hand, permits to Botswana increase marginally form 7 886 (2018/19) to 8 263 (2019/20).

When a comparison is made between permit statistics displayed in tables 21 and 24, it is evident that more permits are issued to countries located near the NSC, than for MS that are bounded together by the TKC. Zimbabwe and Zambia are by far the most popular destinations for the conveyance of freight between South Africa and the SADC.

4.3.2 Trade Flows

Four commercial border posts link South Africa to Botswana and these borders are known as the:

- Grobler's Bridge / Martin's Drift border post that connects the Limpopo province in South Africa to Botswana;
- Tlokweng Gate / Kopfontein Border post that connects the North West province in South Africa to Botswana;
- Pioneer Gate / Skilpadshek Border post, located 52 kilometres north-west of Zeerust, connects the North West province in South Africa with Botwana; and
- Ramatlabama Border post, located approximately 25 kilometres north of Mafikeng, connecting the North West province of South Africa to Botswana.

The Pioneer / Skilpadshek border post accommodates cross-border road traffic movements along the TKC. Table 25 below depicts South African exports and imports volumes and monetary values for trade volumes that passed though the Pioneer / Skilpadshek border post during 2018 and 2019. The text box below the table explains the meaning of the different units.

Table 25: Trade Volumes and Values handled at the Pioneer / Skilpadshek Border post (2018 and 2019)

EXPORTS						
	Value (Rands)			Volume		
Units	2018	2019	Year-on-Year	2018	2019	Year-on-Year
CT	83 420	461 138	452,8%	8	193	2247,1%
KG	18 286 119 761	20 587 437 850	12,6%	1 037 694 672	1 143 841 537	10,2%
LI	5 382 484 609	8 903 802 056	65,4%	722 209 053	1 061 836 988	47,0%
MC	371 669 424	491 404 342	32,2%	1 267 449	20 255 645	1498,1%
ME	269 463	165 381	-38,6%	9 975	22 650	127,1%
NO	6 724 024 641	8 855 537 667	31,7%	48 471 793	77 007 658	58,9%
PR	427 346 785	452 695 843	5,9%	7 138 402	5 860 420	-17,9%
SM	160 349 589	155 282 826	-3,2%	1 866 727	4 182 426	124,1%
Total	**31 352 347 692**	**39 446 787 103**	**25,8%**	**1 818 658 078**	**2 313 007 518**	**27,2%**

	IMPORTS					
CT	23 550	282 323	1098,8%	157	5 286	3266,6%
KG	2 031 325 365	2 108 255 454	3,8%	263 931 311	277 843 027	5,3%
LI	984 317 079	1 177 043 622	19,6%	70 548 983	78 920 761	11,9%
MC	16 569 471	3 944 800	-76,2%	161 349	10 788	-93,3%
NO	346 030 568	500 472 319	44,6%	197 159	255 754	29,7%
PR	6 471 029	5 484 810	-15,2%	51 207	43 744	-14,6%
SM	95 332	32 872	-65,5%	413	218	-47,2%
Total	**3 384 832 394**	**3 795 516 200**	**12,1%**	**334 890 579**	**357 079 578**	**6,6%**

Abbreviation	Meaning	Example
CT	Carat	Diamonds
KG	Kilogram	Processed meat
LI	Litre	Fuel or liquids
MC	Microgram	Chemical compounds
NO	Number	Live animals
PR	Pair	Footwear
SM	Square metre	Carpets or tiles

Source C-BRTA 2019 (Trade Volumes Report)

Total exports processed at the Skilpadshek border post amounted to R31 352 347 692 (R31, 4 billion) in 2018. In the following year, exports valued R39 446 787 103 (R39,4 billion), registering an increase of 25,8%. Total volumes exported through this border post equalled 1.8 billion units in 2018, while exports amounted to 2.3 billion units in 2019. This represents an increase of 27.2%.

In 2018, South Africa imported R3 384 832 394 (R3, 4 billion) worth of goods whereas imports registered R3 795 516 200 (R3, 8 billion) in 2019. This represents an increase of 12,1%. Total volumes imported from Botswana through Skilpadshek border post documented 335 million units in 2018, while the figure in 2019 equalled 357 million units, thereby reflecting an increase of 6,6%.

4.3.3 Operator Compliance Monitoring

Information pertaining to operator compliance along the TKC is gathered during law enforcement inspections that take place at several points along the corridor., Further to individual (solo) law enforcement inspections by law enforcement agencies in South Africa, Botswana and Namibia, a few joint law enforcement inspections that bring together law enforcers from all three MS have been conducted along the TKC in recent years. The purpose of joint law enforcement campaigns is to promote compliance with the law, increase law enforcement visibility and promote safety and security along the corridor.

A joint law enforcement inspection conducted between 31 May – 1 June 2018, resulted in 2 262 vehicles being stopped, 704 vehicles inspected (including 196 trucks), and 254 cases detected. (https://southerntimesafrica.com/site/news/trans-kalahari-corridor-operation-clamps-sadcs-unruly-drivers) This campaign revealed the following findings:

- Vehicles with worn out tyres – 16;
- Vehicles with general defects – 125;
- Unlicensed vehicles – 19;
- Driving without a license – 25;
- Unlicensed motor vehicles – 19;
- Passenger transport vehicles without a permit – 19;
- Drunk driving cases – 5;
- Illegal immigrants – 15;
- Conveyance of hazardous goods without a permit – 3;
- Drivers in possession of dagga -1;
- Botswana registered vehicles detected by customs with uncleared goods – 2;
- Dangerous goods- 25.

One hundred and ninety-six trucks were stopped for joint law enforcement inspections. Of the total, 19 passenger vehicles were not in possession of a valid permit, while the same number of vehicles were unlicensed. While this information is useful insofar misbehaviours are taken care of (that should impact positively on road safety) a serious limitation is that information emanating from law enforcement checkpoints does not feed into a central, regional database that capture, disseminate and distribute data in real-time to all corridor stakeholders (e.g. TKCS and regulatory authorities in Namibia, Botswana and South Africa). As a result, the value-added benefits of law enforcement inspections (distribution of real-time data) is reduced/ nullified.

4.3.3.1 Movement towards implementing a Corridor-wide monitoring system

The TKC Secretariat, in collaboration with the C-BRTA is driving an initiative that entails the development of a corridor performance monitoring system for the TKC to monitor corridor performance (including operator compliance) and devise actions to address bottlenecks along the corridor. To date, the following milestones have been achieved in developing a corridor performance monitoring system for the TKC:

- Development of a stakeholder engagement plan;
- Identification of Corridor Categories and Corridor Performance Indicators (CPI's);
- Presentation of 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, law enforcement officials and customs authorities), process corridor information and distribute data in real-time to various interest groups.

Adequate funding should be secured in time while agreement should also be reached amongst all parties on the type of ICT software and systems that will be used to share corridor information. Nevertheless, the benefits associated with online monitoring systems, which include a reduction in cargo dwell time at the port of Walvis Bay, decrease in border crossing time(s), increase in operator compliance and road safety, will likely outweigh the costs associated with this initiative.

4.4 Conclusion

Reliable information pertaining to cross-border trade and transport flows and the level of operator compliance along road transport corridors in the region is not readily available. While data on trade volumes and values passing through South African commercial border posts are released by SARS, customs authorities in other countries in the region use different systems (e.g. ASYCUDA) than their South African counterpart (SARS) that uses its own, customised system. Compatibility problems prevent the online sharing of relevant data amongst interest groups. This materialises in the absence of cross-border data at various locations along cross-border road transport value chains (corridors).

The same problem is experienced with regards to real-time data relating to operator compliance. While most info is gathered during law enforcement checkpoints, manual processes are still the norm. In the absence of a regional electronic platform that captures, processes and release real-time data (e.g. number of transgressions, extent of operator compliance) it is not possible to obtain an accurate picture of the level of compliance in the region.

Plans are underway to introduce corridor-wide monitoring along the TKC to measure the performance of the entire corridor between origin and destination points. The C-BRTA is assisting the TKCS in developing CPIs that will be piloted along the TKC, hopefully within a next financial year. The success of this initiative depends on the ability of corridor role-players to secure adequate funds to implement all phases of this initiative, as well as commitment from corridor players to harmonise ICT systems that will enable the online sharing of information in real time. If this system is operational, law enforcement authorities can consider implementing incentives for cross-border drivers who comply with specified quality and safety standards.

5. BENCHMARKING REVIEW OF PRIORITISED GLOBAL ROAD TRANSPORT CORRIDORS

5.1 Introduction

Previous discussions of this report indicated that cross-border road transport operators face faces several infrastructure and operational constraints when they conduct business for reward along strategic road transport corridors in the region. These impediments undermine the seamless movement of cross-border traffic in the SADC. This problem is not limited to the SADC only. On the contrary, cross-border road transport operators are subjected to excessive trade and transportation costs, and little value, when they undertake business for reward in all African RECs.

In order to change the current state, several trade and transport reforms have been approved for implementation at Continental, Regional and MS level, some which are already in advanced stages of the project life-cycle (e.g. TTTFP). These reforms will bring lasting benefits to participating countries once they have been operationalised.

Acknowledging on-going transport reforms unfolding at continental and regional (SADC) level, chapter 5 sheds more light on corridor initiatives (reforms) that have been implemented in other regions across the globe. The purpose of benchmarking was to establish the successes and failures of such reforms and to draw on lessons learned. The findings from benchmarking were also considered in the identification of recommendations in (chapter 6) that aim to improve corridor efficiency in the SADC region. .

5.2 Methodology

The benchmarking was conducted on the following international regions:

- Greater-Mekong Sub-Region; and
- MERCOSUR (the Portugest acronym for MERCOSUR is MERCOSUL).

The prioritised RECs were selected as suitable benchmarking candidates for the following reasons:

- The development status of the Greater-Mekong Sub-Region and MERCOSUR is similar to that of SADC. Both regions face socio-economic challenges, e.g. high levels of inequality and poverty, similar to the one's that SADC faces;
- Road transport is the most common form of transport for the intra-regional movement of goods within the Greater-Mekong Sub-Region and MERCOSUR; and
- Trae relations between South Africa (and many other SADC MS) and Brazil has intensified in recent years due to the BRICS agreement.

5.3 Greater Mekong Sub-Region

5.3.1 Introduction / Background

The Greater Mekong Sub-region, (GMS) or just Greater Mekong, is a trans-national region of the Mekong river basin in Southeast Asia that comprises Cambodia, the People's Republic of China (PRC), specifically Yunnan Province and Guangxi Zhuang Autonomous Region, Lao People's Democratic Republic (Lao PDR), Myanmar, Thailand, and Vietnam.

The GMS is home to around 340 million people spread across diverse geographic and economic terrain. (https://greatermekong.org/about). It juxtaposes the modern city of Bangkok with the remote highlands of Laos, the established market economy of Thailand with the reforming socialist economies of China and Vietnam and the military dictatorship of Myanmar.

GMS countries exhibit widely varying levels of economic development and diverse systems of economic organisation. Thailand is by far the region’s biggest economy accounting for the greatest portion of GDP, while Vietnam claims the largest population. The sub-region’s abundant natural resources provide both income and nutrition to the bulk of people in the GMS who still subsist, in whole or part, on agriculture.

Mekong countries are however increasingly shifting from subsistence farming to more diversified economies, and to more open, market-based systems. In parallel with this trend are the growing commercial relations among the six GMS countries, particularly in terms of cross-border trade, investment, and labour mobility.

The strength of the GMS countries (and other Asian countries for that matter) depend on their ability to maintain their competitiveness. In Asia, competitiveness has been driven by the creation of regional supply chains, with many different countries adding value to specific parts of the supply chain. The trend toward spatial concentration is likely to continue, along with a trend toward urban development.

5.3.2 Trade and Transport Facilitation

Comparative information on the trade faciitation environment in the Greater Mekong-Subregion has been obtained from the report findings, eminating from the 8th economic corridor forum that took place in Phnom Penh, Cambodia in August 2016.

Table 26: Documents required to Export and Import

Documents to export (number)				Documents to import (number)		
Country	**2006**	**2012**	**2014**	**2006**	**2012**	**2014**
Cambodia	6	8	8	10	9	9
People's Republic of China	8	8	8	6	5	5
Lao People's Democratic Republic	12	10	10	15	10	10
Myanmar	-	9	8	-	9	8
Thailand	9	5	5	12	5	5
Vietnam	5	5	5	8	8	8

Source: Greater Mekong Sub-region. Eighth Economic Corridors Forum. 2016

As illustrated in table 26, Lao People's republic performance worse in terms of number of documents (10) to export in 2014. Cambodia, People's Republic of China did not fare much better and required 8 documents for export during the same year. The number of documents required to import reduced for all countries between 2006 – 2014. Once again, Lao People's Republic obtained the worse score (10 documents), followed by Cambodia (9 documents).

Table 27 shows the time to import and export, expressed by number of days.

Table 27: Time to Export and Import

Time to export (number of days)				Time to import (number of days)		
COUNTRy	**2006**	**2012**	**2014**	**2006**	**2012**	**2014**
Cambodia	37	22	22	45	26	24
People's Republic of China	21	21	21	24	24	24
Lao People's Democratic Republic	55	25	23	65	26	26
Myanmar	-	25	20	-	27	22
Thailand	24	14	14	22	13	13
Vietnam	24	21	21	23	21	21

Source: Greater Mekong Sub-region. Eighth Economic Corridors Forum. 2016

From table 27 it is evident that the time to export decreased for all countries between 2006 – 2014. Thailand obtained the best score in 2014 (14 days), while Lao obtained the worse score (23 days). Regarding time to import, Thailand once again obtained the best score (13 days). However, Cambodia revealed the greatest improvement from 45 days to import in 2006 to 24 days in 2014.

The decrease in number of documents required for imports / exports and number of days to import / export illustrate that trade facilitation reforms unfolding in the region are yielding positive results. However, the variance in performance between member countries also indicate that the harmonisation of trade rules / standards have not yet been accomplisyed. Section 5.3.4 sheds more light on trade and transport facilitation reforms unfolding in the Greater-Mekong region.

5.3.3 Corridor Impediments / Road Transport Impediments

5.3.3.1 Border Posts

According to the findings of a study undertaken by the Asian Development Bank (2018: 13) border posts in the GMS region remain the weakest link along economic corridors, with excessive time delays being experienced at all inland posts. Border post impediments are aggravated by the fact that improvements in physical (hard) infrastructure outpace the implementation of trade and transport facilitation measures (that are classified as soft infrastructure aspects).

5.3.3.2 Existence of soft infrastructure inefficiencies

The existence of several soft infrastructure challenges cause delays along economic transport corridors and impede the seamless movement of trade and traffic flows in the sub-region. Examples of soft infrastructure inefficiencies that prevail include:

- Constrained inter-agency coordination at both sub-regional and national levels;
- Inefficient border posts;
- Un-harmonised trade and transport facilitation rules and standards;
- Shortage of technical and managerial skills within the public sector; and
- Poor political will to implement regional agreements at national (MS) level.

The need to deal with these issues is widely recognised and several trade and transport facilitation reforms have been adopted to address soft infrastructure impediments that impact directly on trade and transport costs and service delivery.

5.3.4 Trade and Transport Facilitation Initiatives

5.3.4.1 Greater Mekong Sub-Regional Economic Cooperation Programme

The GMS economic cooperation programme supports the implementation of high-priority sub-regional projects in several areas, including transport and transport and trade facilitation. To realise its vision of a prosperous, integrated and harmonious sub-region, the GMS programme has adopted the following strategic thrusts:

- Increasing connectivity through sustainable development of physical infrastructure and the transportation of transport corridors into transnational economic corridors;
- Improving competitiveness through efficient facilitation of cross-border movement of people and goods and the integration of markets, production processes and value chains; and
- Building a greater sense of community through projects and programmes that address shared social and environmental concerns.

Substantial progress has been achieved in implementing GMS projects since 1992. To date, over $20 billion in investments have been directly channelled through the GMS economic cooperation programme.

a) Progress on Achievement of Strategic Thrusts

➢ Strategic Thrust 1 – Strengthening Infrastructure Linkages

The first strategic thrust of the GMS Strategic Framework involves sub-regional cooperation in transport, energy and tele-communications, as well as cooperation in infrastructure to help realise the full benefits of infrastructure investments. Cooperation in the transport sector has resulted in a GMS transport sector study that identifies a set of sub-regional transport projects, covering road, rail, water and air transport.

In all infrastructure sub-sectors, substantial progress has been made on ***hard infrastructure aspects*** of cooperation. In transport, a major achievement is noted in improved physical connectivity in the sub-region, exemplified by the near completion of the following three strategic GMS economic corridors:

- East-West economic corridor;
- North-South economic corridor; and
- Southern corridor.

Progress has been slower on the ***soft aspects*** of infrastructure cooperation. In transport, for example, some progress has been made in the implementation of the Cross-Border Transport Agreement (CBTA), which is important in helping transforming transport corridors into economic corridors. The CBTA is a compact and comprehensive multilateral instrument that covers all important aspects of cross-border transport facilitation in one document. As such it provides for:

- A single stop/single window customs inspection;
- Cross-border movement of persons;
- Transit traffic regimes (including exemptions from physical inspection, bond deposit and agriculture and veterinary inspections;
- Requirements that road vehicles must meet to be eligible for cross-border traffic;
- Exchange of commercial traffic rights; and
- Infrastructure including road and bridge design standards, road signs and signals.

The inability of GMS countries to fully implement the CBTA clearly illustrates that signing and ratifying regional agreements does not imply that all the signatories are able to implement the modalities of such agreement. Numerous laws need to be changed to accommodate the procedures prescribed by the sub regional agreement.

➢ Strategic Thrust 2 - Facilitating Cross-Border Trade, Investment and Tourism

The second thrust of the current GMS strategic framework involves promoting and facilitating intra and extra-GMS trade, investments and tourism.

To date various diagnostics studies have been undertaken on trade facilitation, including on enhancing the implementation of the CBTA and other trade measures, such as the custom transit system and coordinated border management. Furthermore, bilateral agreements have been signed by MS on the exchange of traffic rights. MoU's on initial implementation of the CBTA at selected pilot sites have also been signed.

Progress on achieving the outcomes of improved transport and trade facilitation has been slow. This is mainly due to institutional issues that have constrained inter-agency coordination at both sub-regional and national levels. Cooperation amongst all role-players is key in achieving success in transport and trade facilitation. Since several role-players are involved in transport and trade facilitation, coordination is required to avoid overlap with other institutional parts of the GMS programme.

- **Strategic Thrust 3 - Enhancing Private Sector Participation and Competitiveness**

The private sector acts as an important engine in GMS development. The most noteworthy initiative under this strategic thrust has been the establishment of the GMS Business and Economic Corridor forums. The *GMS Business forum* is a joint initiative of the chambers of commerce of the GMS countries that actively participates in meetings to promote trade and investment in the region The *Economic Corridor forum* on the other hand, plays a critical role in highlighting issues faced by the private sector in doing business along the GMS corridors.

5.3.4.2 Road Infrastructure Projects / Programmes

Transport remains at the forefront of the GMS economic cooperation programme and development in the transport sector is guided by the GMS Transport Sector Strategy (TSS) of 2030 that caters for the hardware and software infrastructure aspects to meet transport demand by the year 2030. This strategy focuses on the:

- Development of priority road transport corridors (in all transport sectors);
- Reduction of NTB's;
- Transformation of road transport corridors into economic corridors over the long-term.

The GMS countries adopted the *economic corridor concept* in 1998 to spearhead economic growth and development in the Greater Mekong and immediately started the process to transform transport corridors into economic corridors. While transport corridors provide a connection between origin and destination points, economic corridors comprise an integrated system of roads, rails, and ports that connect GMS countries. Economic corridors serve as gateways to the sub-region for regional and international trade as they link centres of production, including manufacturing hubs, industrial clusters, and economic zones, as well as centres of demand, such as capitals and major cities.

The following strategic economic corridors traverse the GMS:

- North-South Economic Corridor (NSEC);
- East-West Economic Corridor (EWEC); and
- Southern Economic Corridor (SEC).

In recent years, several road infrastructure programmes have been launched along all 3 economic corridors to rehabilitate existing road networks and to construct new road links to create seamless transport movements in the GMS. A review of the configuration of the GMS economic corridors was conducted in 2016 to ensure that:

- The opening of Myanmar is taking place;
- There is a close match between corridor routes and trade flows;
- GMS capitals and major urban centers are connected to each other; and

- Priority corridors are linked with maritime gateways.

Findings of the review process indicated that as far as road transport is concerned, all missing links along the GMS corridor network has been eliminated. Figure 8 clearly displays the existence of integrated road networks along each of the priority road transport corridors. Except some sections of the EWEC in Myanmar, and road links of the SEC in Cambodia, all other road improvement projects under the original configuration of NSEC, EWEC and SEC have been completed.

Future efforts will focus on upgrading or rehabilitating the remaining gaps in the original alignment of the EWEC and SEC and the construction of new road sections, particularly in the Lao PDR and Myanmar to address bottlenecks under the realigned and expanded corridors. (Asian Development Bank. 2018: 13)

Figure 8: Economic Corridors in the Greater Mekong Sub-Region

Source: https://greatermekong.org/content/economic-corridors-in-the-greater-mekong-subregion

5.3.4.3 Border Post Programmes

Several border post programmes have been approved in the sub-region to improve border post constraints. Most border programmes focus on soft infrastructure elements, including:

- Harmonisation of border crossing standards through the adoption of common border crossing rules and standards by all GMS countries;
- Development and implementation of a computerised cross-border system that possesses the capabilities to track trade and traffic movements in the GMS and eradicate corrupt practices in border areas; and
- Full implementation of approved trade and transport facilitation agreements;

The above-mentioned solutions are all covered in the TSS 2030. Literature sources at hand reveals that limited progress have been achieved in the above-mentioned areas.

5.3.4.4 Law Enforcement Initiatives

a) PATROL Project

The Partnership against Transnational Crime through Regional Organized Law Enforcement (PATROL) project aims to assist countries in the GMS in their fight against organised crime by helping them strengthen borders and expand cross-border operation.

To achieve this aim, the project relies on the Border Liaison Office (BLO) mechanism. The mandate of the BLO has been broadened under the PATROL project to include migrant smuggling, human trafficking and the illicit cross-border movement of wildlife, timer, hazardous waste and ozone depleting substances.

So far, the PATROL initiative has made significant progress in the training of law enforcement and border officials associated with BLOs. Training needs assessments have been concluded in GMS countries to determine training levels. These assessments informed the PATROL team in devising customised training programmes for law enforcement and border officials.

5.3.5 Institutional Arrangements and Mechanisms

The successful implementation of the GMS economic cooperation programme depends on close cooperation and coordination between relevant public and private sector players. Key-institutions involved in the road transport sector include the following parties:

- Sub-regional Transport Forum (STF); and
- Joint Committee and supporting bodies for implementing the CBTA.

5.3.5.1 Sub-Regional Transport Forum

The STF is the body involved for overall coordination of the implementation of the TSS 2030 and reports for the GMS ministers through the Senior Officials' meeting. The STF, who comprise of public and private sector players is mandated to oversee the implementation of the strategic thrust of the TSS 2030. This body performs the following key functions:

- Facilitate and coordinate the identification and formulation of GMS initiatives in the transport sector;
- Coordinate, monitor and prepare progress reports on the implementation of GMS transport programmes and projects;
- Facilitate the resolution of issues and bottlenecks in the implementation of GMS transport sector programmes and projects; and

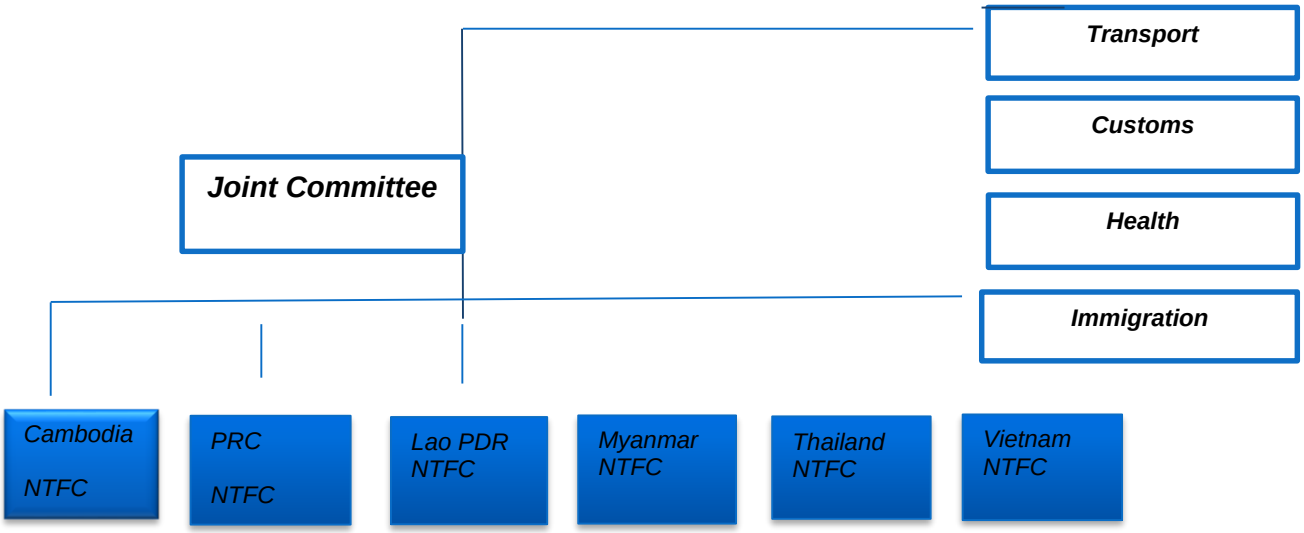
- Work closely with FRETA to promote the active participation of the private sector in GMS transport development.

A review of the GMS institutional framework was undertaken in 2016. The review process concluded that the STF is working well, partly due to the well-defined scope of work and strong ownership among concerned agencies in the GMS countries.

5.3.5.2 Joint Committee of the GMS

The Joint Committee for the GMS is an advisory body at ministerial level, who is tasked with the responsibility to coordinate, monitor and assess the efficient functioning of the CBTA, and its annexes and protocols. Figure 9 below illustrates the institutional framework for implementing the CBTA.

Figure 9: Cross-Border Transport Facilitation Agreement Institutional Framework



Source: Asian Development Bank. 2018

Figure 9 shows that the Joint Committee, who is positioned at ministerial level, is supported by four sub-committees covering transport, customs, health and Immigration, and National Transport Facilitation Committees (NTFC) in all GMS countries.

The institutional review process of 2016 revealed the following weak links that undermine institutional efficiency:

- Inadequate interface between public sector bodies (e.g. STF) and the private sector; and
- Lack of technical and managerial skills at institutional level.

The initial support provided to the GMS Business Council and FRETA by development partners (e.g. UE, ADB) has not been sufficient to generate a critical mass and momentum for their activities. To eliminate this gap, several steps have been taken to strengthen CBTA institutional arrangements and mechanisms, including the hosting of regular joint committee

meetings and enhancing the participation of the four sub-committees in joint committee meetings.

Furthermore, several training programmes have been developed to address skills shortages in all transport sub-sectors. The development of similar training programmes in other areas, e.g. logistics management, border management and the use of modern technology, is currently being investigated. The success of this venture depends on the willingness of all GMS countries to work together in bringing together a pool of expertise and resources to cross-fertilise ideas and approaches.

5.3.6 Benchmarking Findings: Similarities and Lessons learned for SADC

5.3.6.1 Similarities: Greater Mekong Sub-Region and SADC

a) Poor Implementation of Trade and Transport Projects / Programmes

To date the GMS has achieved mixed success with the implementation of transportation projects / programmes contained in the TSS 2030. While substantial progress is witnessed with regards to the implementation of hard infrastructure reforms, with missing links along the EWEC, NSEC and SEC being eliminated, the existence of several soft infrastructure impediments still impedes the seamless movement of cross-border traffic in the GMS.

The case is no different for the SADC, where several strategic regional road transportation projects / programmes, still await implementation, even though the SADC RIDMP has been adopted by Heads of State in 2012 already. This clearly illustrates that the signing and ratification of regional agreements to not automatically lead to implementation.

Suggestions to Fast-track progress / Critical Success Factors

- Obtain political for trade and transport reforms from all interested parties through regular engagements whereby progress, pitfalls and benefits of reforms are shared with interest groups; and
- Foster greater private sector participation during all phases of the project life cycle (planning, construction and project monitoring).

b) Border Posts Act as the greatest Stumbling Block to Intra-Regional Trade and Travel

Inland border posts in the GMS remain the weakest link along economic corridors in the GMS, with excessive time delays experienced at border posts. One reason for the problem is that improvements in hard infrastructure outpace the implementation of soft aspects, such as the harmonisation of border rules and standards and the implementation of OSBP's.

Similar problems are experienced in the SADC, where cross-border operators experience significant time losses at strategic and non-strategic border posts, which dramatically increase the cost of doing business in the region.

Suggestions to Fast-track progress / Critical Success Factors

- Fast-track the implementation of approved soft infrastructure programmes. Trade and transport facilitation measures (e.g. harmonisation initiatives) are normally less costly to implement and benefits can be accrued over a shorter time span;
- Encourage the private sector to become part of the solution by educating them on the collective benefits of TTF measures for all parties;

- Create favourable environment to attract private sector financing, by creating a level-playing field and by implementing adequate controls to ensure projects deliver on their expected value to the public in time.

c) Adoption of Multilateral Trade and Transport Agreements

The GMS countries adopted the CBTA to improve trade and transport facilitation within the sub-region. This comprehensive multilateral instrument covers all aspect of cross-border facilitation (e.g. transit traffic regimes, exchange of commercial traffic rights) in one document.

A similar initiative is currently unfolding in the Tripartite to which the SADC belongs. The TTTFP combines a series of initiatives of three RECs into a single trade facilitation programme that, like the CBTA, focuses mostly on "soft" issues. Examples of soft infrastructure programmes include the adoption of harmonised standards in several fields (e.g. Vehicle overload control, vehicle dimensions, transportation of abnormal loads).

While mixed results have been achieved with the CBTA in the GMS, the TTTFP is progressing towards phased implementation by 2023. The draft C-BRTA (that acts as primary legal instrument for implementing the TTTFP) has been developed and is currently being workshopped at MS level. This document should be approved by the Council of Ministers of Transport, where-after individual MS should ratify the TTTFP at national level. Relevant institutional structures should still be established at regional and MS level to allow implementation. It is imperative that proper project monitoring is executed during the development and implementation phases to ensure timeous delivery of the TTTFP.

Suggestions to Fast-track progress / Critical Success Factors:

- Signatories of the TTTFP should participate in engagements sessions track development progress and to maintain political will;
- Project management efforts should be intensified to manage scope creep and to respond to project risks in a timeous fashion;
- Institutional capacity should be built at regional and national in the Tripartite level to avoid the mistakes the GMS countries made where institutional issues constrained inter-agency cooperation at both sub-regional and national levels.

d) Lack of Private Sector Involvement in Transport Reforms

The private sector is recognised as an important engine in facilitating trade and transport reforms in the GMS. Even though strategic forums, such as the Business and Economic corridor forums, have been established to facilitate interaction between all corridor role-players (mostly public and private interests) in implementing TTF initiatives, a lack of resources and narrow memberships among service providers have constrained private sector participation, (and success) in executing strategic programmes.

A similar trend is witnessed in the SADC where private sector involvement in the execution of strategic transport projects / programmes remain weak. Public sector financing still constitutes the bulk of resources allocated towards infrastructure projects in the region, even though public funds are not enough to address the region's infrastructure challenges. This points to the need to seek alternative financing options for infrastructure development.

e) Institutional Constraints

Institutional inefficiencies (at MS and regional level) have led to poor achievement of TTF outcomes in the GMS. in the sub-region. The SADC is also plagued by institutional inefficiencies, which include a shortage of managerial, technical and project management skills in all the infrastructure sub-fields.

The GMS is attending to this problem through the development of tailor-made training programmes that aim to address capacity building, education and skills development. A major accomplishment is the successful implementation of plan “Phnom Penh” in the sub-region that focuses on building capacity among GMS government officials.

Furthermore, GMS countries recognise the importance of giving special attention to the less developed countries to enable them to benefit from and contribute fully to sub-regional cooperation and integration. In the absence of clear capacity-building targets, it is difficult to assess how much progress has been achieved in eliminating this gap.

It is proposed that the SADC builds on the GMS example by developing tailor-made training programmes for government officials in the transport industry to address capacity and skills shortages. These plans should be accompanied by clearly defined capacity building targets to enable MS to track progress.

Suggestions to Fast-track progress / Critical Success Factors:

- Stakeholder engagement sessions must be convened at MS and regional level to bring all countries on board with the development of tailor-made transport programmes to address capacity and skills shortages within the public sector;
- Assessment exercises should be undertaken at MS and regional level to identify capacity requirements and gaps that undermine the performance of public sector transport institutions;
- Sufficient funds should be secured to enable the development of tailor-made training programmes.

5.3.6.2 Benchmarking Lessons for the SADC

The implementation of the following TTF measures in the GMS has yielded positive results. It is therefore proposed that the SADC consider adopting the following initiatives, not only to reduce excessive time delays along road transport corridors, but also to yield sustainable growth and development for the entire region.

a) Transform Transportation Corridors into Economic Corridors

The GMS adopted the economic corridor approach to stimulate growth and development in the sub-region. The economic corridor approach differs from the traditional transport approach insofar it entails much more than the physical movement of goods along transport corridors. It entails the entire process of planning and management of the flow of goods from point-of-origin to the end user, economic corridors integrate transport, warehousing, storage, freight forwarding and ICT to meet the requirements of customers.

In transforming transportation corridors into economic corridors, GMS countries adopted a coordinated approach to transport development with a strong focus on the development of inter-modal transport to create seamless transport services on a fully connected and integrated GMS transport network. An economic corridors forum has been established to coordinate development along the priority corridors.

Success has been achieved in many areas, particularly in improving physical connectivity among GMS countries. The completion of major road transport projects yielded spill-over benefits, especially in border towns, including:

- A reduction in cost and time of travel;
- Growth in cross-border trade; and
- Increased economic opportunities.

Although increased cooperation amongst role-players in the transport sector has yielded several results (e.g. strengthening connectivity between MS) progress in the following areas has been less desirable:

- Establishment of an open market economy;
- Seamless movement of cross-border traffic due to inefficiencies at border posts;
- Development of multi-modal infrastructure; and
- Monitoring of progress towards transforming transport corridors into economic corridors. Although information is available on implemented projects, output pertaining to increases in cross-border traffic and travel cost are not regularly measured and compiled.

The SADC can benefit greatly from implementing the economic corridor approach. The region is characterised by acute economic imbalances and inequalities, especially with regards to the nature and level of economic development of MS. The lessons from experience in GMS efforts to transform transport corridors into economic corridors are as follows:

- There is substantial scope for expanding the participation of the private sector in the planning, financing, operation and maintenance of GMS infrastructure projects;
- Policy and regulatory reforms needed to facilitate cross-border transport and trade was more difficult to implement than infrastructure projects. They require patience and persistence, more time and effort and more intensive policy dialogue and follow up;
- The signing and ratification of agreements do not automatically lead to implementation. Institutional capacity gaps should be identified and measures addressing these gaps should be taken to ensure timely and effective implementation of agreements;
- Over-ambitious road maps and action plans lead to unnecessarily high expectations that, if not fulfilled, can lead to loss of commitment and momentum;
- As in other regional and sub-regional cooperation programmes, the distribution of costs and benefits is an important consideration. Due to the small population and level of development of Cambodia and Lao PDR and other GMS countries with much larger markets (e.g. Thailand), the corridors in their territories could become mainly a transit point for trade among their neighbouring countries. Mutually acceptable mechanisms for cost sharing should be considered to address this issue.

b) Implement Single-Stop Inspections

PATROL initiative began in 2013 to fight organised crime in the GMS. This reform has resulted in the six-nation Safe Mekong Operation project (that will continue until 2022) that focuses on

the prevention of drug trafficking in the sub-region. Single-stop inspections also focus on the stoppage of migrant smuggling and human trafficking.

The PATROL initiative has also resulted in the development and offering of customised training materials to law enforcement that has improved the level of professionalism in the law enforcement space. Given the fact that the SADC is plagued by the same challenges, the following lessons can be learned from the GMS single-stop experience:

- Single-stop inspections should be introduced along all strategic road transport corridors in the SADC that bring together law enforcement officials from various public-sector spheres (e.g. customs, police services, immigration, cross-border) to perform comprehensive vehicle, driver, cargo and / or passenger checks. This practice will eliminate, or at least reduce human trafficking and the illegal transportation of contra-band goods. Furthermore, it will materialise in significant time-savings for cross-border road transport operators who will be subjected to fewer stops along regional road transport corridors; and
- Consideration should be given to the establishment of a regional training academy that offer tailor-made programmes to law enforcement officials with the aim to improve the level of professionalism in the industry. The C-BRTA in South Africa has taken the lead in driving this initiative forward.

5.4 MERCOSUR

5.4.1 Introduction and Background

MERCOSUR was established in 1991 by the signing of the Treaty of Asuncion (TA). At the time it was made up of four states: Argentina, Brazil, Paraguay and Uruguay. Venezuela joined this REC in 2012 but has been suspended since December 2016 for non-compliance with its Accession. MERCOSUR counts Bolivia, Chile, Columbia, Ecuador, Guyana, Peru and Surinam as associate states. Associate members are not full members of MERCOSUR and do not have voting power in MERCOSUR's political bodies. They do, however, have preferential trade access to the market.

MERCOSUR is characterised by open regionalism, as it aims not only to increase trade within the region, but also to stimulate trade with other countries. The TA provides for the transitional and progressive integration of the economies of MERCOSUR member through the following phases:

- Phase 1 – *Establish Free Trade Area*: this has been achieved and there is provision for the free movement of goods and the elimination of internal tariffs;
- Phase 2 – *Establish Customs Union*: This provides for the adoption of a common external customs tariffs. MERCOSUR currently confines itself to a customs union, in which there is free intra-zone trade and a common trade policy between member countries;
- Phase 3 – *Establish Common Market*: this phase is expected to go beyond the customs union by adding it to the free movement of capital and labour.

Although MERCOSUR are characterised as a customs union, it is in the process of consolidation, with common market features, including, the elimination of obstacles to the circulation of factors of production, as well as the adoption of a common tariff policy regarding third countries, through a Common External Tariff (CET). In 2019, the Mercosur had generated

a nominal Gross Domestic Product (GDP) of around 4.6 trillion US dollars, placing the bloc as the 5th economy of the world. (https://en.wikipedia.org/wiki/Mercosur).

5.4.2 Trade and Transport Facilitation

Comparative information on the trade faciitation environment in selected MERCOSUR countries has been collected through a study undertaken by the United Nations Office of the High Representative for the Least Developed, Landlocked Developing Countries and Small Island Developing states. (UN-OHRLLS). Informaion pertaining to the business / trade environment was obained from the World Bank's "Cost of Doing Business" project that assesses the performance of MS in several areas, including: number of documents required to export and import, as well as the time and cost to import and export. The following MERCOSUR countries were included in the project:

- Full members: Argentina, Brazil and Paraguay; and
- Associate members: Bolivia, Chile and Peru.

Bolivia and Pargaguay are the only countries land-locked countries in South America and reveal lower levels of economic performance, stemming from their landlockedness. These countries face challenges relating to unreliable land transport systems, costly bureaucratic procedures and difficulties in accessing sea ports. Furthermore, both countries experience difficulties and additional costs in ccessing seaports. Table 28 shows the number of documents that the 6 REC MS require to conduct trade.

Table 28: Documents required to Export and Import

	Documents to export (number)			***Documents to import (number)***		
Country	**2006**	**2012**	**2015**	**2006**	**2012**	**2015**
Argentina	6	7	6	6	6	8
Bolivia	7	7	7	6	6	6
Brazil	6	6	6	8	8	8
Chile	5	5	5	5	5	5
Paraguay	7	7	7	9	9	9
Peru	5	5	5	7	7	7

Source: UN-OHRLLS.

As shown in the table above, the documents required to export remained the same between 2006 and 2015. The same goes for the number of documents required to import, except for Argentina where the number of documents increased from 6 documents (2006 and 2012) to 8 documents in 2015. This trend raises concern(s) and may be attributed to excessive bureaucratic procedures, especially with regard to transport and trade facilitation.

Table 29: Time and Cost to Import and Export

	Time to Export (days)			*Cost to Export (US$ per container)*			*Time to Import (days)*			*Cost to Import (US$ per container)*		
Country	**2006**	**2012**	**2015**	**2006**	**2012**	**2015**	**2006**	**2012**	**2015**	**2006**	**2012**	**2015**
Argentina	16	13	12	1,325	1,480	1,770	20	16	30	1,825	1,810	2.320
Bolivia	24	19	22	1,425	1,425	1,440	36	23	28	1,452	1,747	1,745
Brazil	18	13	13	630	2,075	2.323	24	17	17	1,090	2,075	2,323
Chile	17	17	15	645	795	910	16	15	12	600	760	860
Paraguay	36	34	29	1,220	1,440	1.850	33	33	30	1,400	1.750	2,275
Peru	22	12	12	575	860	890	29	17	17	670	880	1,010

Source: UN-OHRLLS.

Table 29 reveals that Bolivia and Paraguay face higher time to import and export than the other countries, except for Argentina who's time to import which was the same as in Paraguay (2015 figures). While it takes on average 22 days to export in Bolivia, it only takes 12 days in Argentina and Peru. For importing, it takes 30 days in Paraguay (and Argentina), but only 12 days in Chile.

Another observation from table 29 is that the time (days) to export have decreased in all the countries. The same tendency is noted with days to import, with the exception of Argentina, who faced a steep increase from 12 days in 2016 to 30 days in 2015. The general decrease in days to import and export is an indication that the action taken towards integration and trade facilitation are creating positive effects. Important achievements in this regard are the operationalisation of integrated border controls and the simplification of customs documentation procedures produced through an electronic system that will be discussed in greater detail in the next section.

Concerning costs, exporting a container is the highest in Brazil ($ 2,323 in 2016) and the lowest in Peru ($ 890). For imports, Brazil, Argentina and Paraguay reflected the highest costs in 2015.

Table 30: Burden of International Transport Costs (Percentage of Import Costs)

International Road Transport Costs as Percentage of Import Costs (2008-2013)						
Country	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
Bolivia	6,6	7,2	7,8	7,6	7,9	7,2
Paraguay	5,9	6,5	6,5	6,8	-	-
Peru	5,1	6,3	5,8	5,3	5	5,7
Uruguay	5,1	5,6	5,1	5,2	5,8	5,9
Argentina	5	5	5,1	4,7	4,8	4,6
Brazil	3,2	3,7	3,7	3,7	3,6	3,6

Source: UN-OHRLLS.

Table 30 shows tat the burden of international road transport costs as percentage of import costs were higher for Bolilvia than for the other coastal countries. The same trend is experienced in the SADC where the six land-locked countries face higher transport costs due to longer distances travelled and difficulties in accessing seaports.

5.4.3 Road Transport Impediments

Impediments that relate to and impact on day-to-day trade and transport operations in MERCOSUR are discussed below.

5.4.3.1 Road Infrastructure

Table 31 summarises key road transport indicators for six MERCOSUR countries. Data were sourced from the Ministry of Public Works and Communiations. The base year is 2012.

Table 31: MERCOSUR - Road Transport Indicators

	Road Transport		Paved Network		Road Density			Vehicles (trucks)	Density (trucks)	Average fleet age	Average Tariff road cargo
Country	Year	Total network (km)	Km	%	Area (km2)	Km/ km2	Paved km/ km2	Vehicles (thousands)	Trucks over 1000 inhabitants	years	US$ / t-km (40"containers)
Argentina	2012	628,693	216,270	34	2,780,400	0,23	0,078	540	10.54	13	0,10
Bolivia	2012	81,022	6,482	8	1,098,581	0,07	0,006	99	9,80	n/a	0,13
Brazil	2012	1,691,164	202,940	12	8,514,880	0,20	0,024	7,619,436	26,41	13	0,19
Chile	2012	77,442	18,818	24	756,090	0,10	0,025	201,531	11,58	10	0,13
Paraguay	2012	32,059	5,129	16	406,750	0,08	0,013	242,257	28,12	17	0,12
Peru	2012	149,660	19,950	13	1,285,220	0,12	0,016	106	2,37	13	0,47

Source: UN-OHRLLS

From table 31 the following observations are noted:

- Information on road transport indicators for MERCOSUR is not readily available. The latest available data is for 2012;
- Brazil and Argentina are the biggest countries and has the longest road networks. Despite its road length of 1,691,164 km, only 12% of the road network in Brazil was paved in 2012. The land-locked countries do not fare any better, only 16% of the total road network in Paraguay was paved in 2012, while the figure for Bolivia stood at 8%;
- Heavy vehicle traffic is most acute in Brazil, with 7,619, 436 trucks on Brazilian roads in 2012;
- The average vehicle fleet in Brazil, and other MERCOSUR countries in 2012 was above 10 years. The ageing vehicle fleet pose a danger to road safety.

Further to the information contained in table 31, literature sources on road infrastructure in MERCOSUR reveals that despite the fact that Brazil has ample facilities for logistical support and cargo handling, poor road surface conditions, a lack of infrastructure marking and inadequate engineering design result in serious bottlenecks along road networks in the country.

The condition of road in infrastructure in Agentina is generally good, but prone to congestion, but border infrastructure is inadequate. A lack of coordination at inland borders, poor management and corruption are examples of soft infrastructure inefficiences that aggravate congestion at border posts. In order to change the status quo, a national transport infrastructure plan was launched under leadership of President Macri after he came into power in 2015. According to this plan, the private sector was to finance 25% of this plan. President Marci suffered an unexpected political defeat in 2019, before his plan could deliver tangible results.

Some of Uruguay's roads are in a poor condition, compared to roads in Argentina and Brazil. In recent years (thanks to partial funding from the World Bank), the country has invested heavily in road programmes to rehabilitate 890 kilometers of national roads, incorporate improved road safety standards to modernise around 260 kilometere of the road network and to conduct annual maintenance to 3,000 kilometers of the country's road network. (ttps://www.worldbank.org/en/news/press-release/2017/03/27/world-bank-roads-uruguay-safer-resilient-climate-change).

Paraguay also made significant improvements to its road network between 2008 – 2016. Regarding the main (primary) road network, road maintenance contracts, covering 623 kilometres of road was competed over this period. (https://www.worldbank.org/en/results/2018/06/27/mantenimiento-vial-paraguay)

5.4.3.2 Time Delays at Border Posts

Border posts in the MERCOSUR are characterised by similar problems than inland borders in the SADC. Although the implementation of various trade facilitation measures over the past decade has provided some relief to commercial road transport operators, lengthy time delays at still experienced at some borders in the region.

Time delays are not only caused by soft infrastructure inefficiencies (lack of harmonised rules and procedures, limited border opening hours, corrupt practices and poor staff performance) but also by poor hard infrastructure, including inadequate inter-modal interchange infrastructure.

5.4.3.3 Poor Road safety

In 2012 the greatest portion of the total road network in the 6 selected MERCOSUR countries were unpaved (see table 31). The poor condition of road networks aggravates road congestion and contributes to accidents. Table 32 illustrates annual road fatalities per capita per annum for the World and Africa, versus annual road deaths per capita in the 6 prioritised MERCOSUR countries. Road fatality figures have been obtained from the World Health Organisation (WHO) 2013 and 2016 reports. Figures have been adjusted in some cases to reflect the different reporting and counting methods among countries.

Table 32: Traffic-related Road Fatalities

Country/ Region	Continent	Road fatalities per 100 000 inhabitants p.a.	Road fatalities per 100, 000 motor vehicles	Total fatalities (adjusted / estimated figures by WHO)
World		18.2	-	1,350, 000
Africa		26.6	574	246 ,719
Americas		15.6	33	153, 789
Mercosur				
Argentina	South America	13.6	24.3	5,619
Brazil	South America	23.4	57.5	46,935
Bolivia	South America	23.2	205.2	3,476
Chile	South America	12.4	51.1	2,179
Paraguay	South America	20.7	114.7	1,408
Peru	South America	13.9	99.3	4,234

Source: Data extracted from: https://en.wikipedia.org/wiki/List_of_countries_by_traffic-related_death_rate

From table 32 it is evident that road fatalities in Africa (expressed per 100 000 inhabitants per annum) is higher than the world norm of 18,2. The annual road death toll in three MERCOSUR countries (Brazil, Bolivia and Paraguay) is also higher than the world average. This tendency supports the trend that low-income countries experience the highest annual road traffic fatality rates.

Road fatalities per number of motor vehicles (100,000) in MERCOSUR is highest in the two land-locked countries: Bolivia (205,2) and Paraguay (114,7). However, these figures are still significantly lower than the Africa average of 574. High road fatality figures in MERCOSUR countries call for urgent intervention to lower road deaths.

5.4.4 Trade and Transport Facilitation Initiatives

This section sheds more light on trade and transport facilitation reforms adopted and implemented in MERCOSUR to address infrastructure inefficiencies and strengthen trade amongst member states.

5.4.4.1 Customs and Border Crossing Procedures

Over the years, the existence of several infrastructure inefficiencies at land borders rendered inland borders highly inefficient. To bring about improvement, several working groups were established to identify and implement solutions to border constraints. An example includes working sub-group number 5 that has been established to streamline border processes.

Since the creation of a customs union, several advances have been made to reduce, and eventually eliminate soft infrastructure inefficiencies at border posts. Examples of improvements include:

- Establishment of integrated customs control at border posts according to which customs control is done at one side of the border only. Commercial vehicles are therefore subjected to one stop only;
- Adoption of a computerised tracking system, called SINTIA that uses a single document to recognise transit cargo in MERCOSUR member countries and its

associate countries. This system is already operational at several border posts in transit countries (e.g. Argentina, Chile, Paraguay and Bolivia) and allows customs officials to check documentation before cargo arrives at the border; and
- Advances towards adopting a single customs document that integrate data from customs declarations to avail real-time data on trade and traffic flows and risks associated with transit goods.

MERCOSUR is also advancing on the gradual implementation of the Framework of Standards to Secure and Facilitate International Trade (SAFE) of the World Customs Organization. The main standards relate to supply-chain reliability by making efforts to:

- Improve security;
- Enable integrated supply chain management systems for all modes of transport;
- Promote seamless movement of goods;
- Strengthen customs-business cooperation; and
- Strengthen customs administration cooperation across countries forming part of international supply chains to improve the capability to detect high-risk consignments.

5.4.4.2 Harmonisation of Border Policies and Procedures

As far as the harmonisation of transport rules, procedures, policies, regulations and laws are concerned, MERCOSUR approved the Recife Agreement for coordinating border controls in 1993 and the Additional Protocol in 1994. These documents define a set of measures and simplified procedures to regulate the functioning of integrated border controls between MERCOSUR states, Simplified procedures have been implemented at some borders, including:

- Posadas-Encarnación and Clorinda Puerto Falcón border that links Argentina and Paraguay;
- Corumbá - Puerto Suárez border post between Brazil and Bolivia;
- Paso de los Libres – Uruguayana, Santo Tomé - San Borja border post between Argentina and Brazil;
- Concordia - Salto, Colón - Paysandú and Gualeguaychú - Fray Bentos border between Argentina and Uruguay; and
- Jama / Cristo Redentor and Integración Austral border post between Argentina and Chile.

Further to the adoption of simplified procedures at some borders, another achievement is witnessed in the computerisation of traditional border procedures / processes. Yet, in practice, computerised systems at border posts in the sub-region are often found out of service.

5.4.4.3 Movement towards OSBPs

The region has made important efforts towards transforming traditional two-stop borders into OSBPs. OSBPs are operational at inland borders linking Bolivia and Paraguay.

For the West North Bolivian corridor, a mega infrastructure project focusing on the construction of OSBP (including an international bridge), and the implementation of integrated border controls has commenced at the Peru – Bolivia border post to facilitate the flow of people, vehicles and goods. Furthermore, complementary actions, associated with streamlining

regulatory frameworks and bi-annual integrated border control operations, have been identified. Until this project is operationalised, border controls will be performed around Carancas, in Peruvian territory in provisional facilities which poses obstacles to smooth bilateral trade and tourism. From information sources at hand, it could not be established whether this project has been completed.

5.4.4.4 Authorised Economic Operators

MERCOSUR countries have adopted and implemented the Authorised Economic Operator (AEO) system, whereby operators who meet a set of security requirements receive a certification that facilitates trade operations through faster clearance processes.

According to a report released by UN-OHRLLS, eleven countries in Latin America have AEO programmes in place and are certifying companies as secure operators. The following MERCOSUR countries have also operationalised the AEO system: Argentina, Bolivia, Brazil, Colombia, Peru, and Uruguay. Paraguay is yet to introduce this programme that will pose the following benefits to compliant operators:

- Simplified customs procedures;
- Reduction of physical and documentary checks;
- Easy-to-carry-out checks on the premises of the operator;
- Implementation of fast lanes at border posts;
- Financial advantages upon payment of taxes and tariffs;
- Reduction of time and costs for commercial road transport operators; and
- Awarding a seal to compliant operators.

The AEO system also pose benefits for the public sector, including:

- Creating capacity in public institutions for the management of the AEO programme;
- Promoting synergies with the private sector for the introduction of trade facilitation mechanisms; and
- Generating an increased flow of information on the operation of the supply-chain to use in risk analysis systems.

On 13 November 2019, the national Directors of the Mercosur Customs Agencies have signed a mutual recognition agreement about the programmes of the Authorised economic operator (AEO). Four MERCOSUR countries signed the AEO agreement which aims to strengthen exchanges within the customs union and promote the simplification of customs procedures to facilitate trade in the sub-region.

The AEO concept also has great importance for the European Union (EU). After years of negotiations, the principles of the EU-Mercosur trade agreement were published on the European Commission’s website, including the provision of cooperation between the parties for an AEO mutual recognition agreement. If approved, this agreement would allow the EU and MERCOSUR operators to enjoy the same benefits under the AEO scheme. The mutual recognition agreement signed by the Mercosur Customs Directors in 2019 represents an important step forward in this direction. Similar benefits can be experienced by African RECs if they adopt and implement the AEO concept and enter into agreements with prominent global RECs who adhere to the AEO scheme.

5.4.5 Institutional Arrangements and Mechanisms

MERCOSUR consist of several organisation structures, each mandated to perform certain functions. Of importance are the following structures:

- Common Market Council;
- Common Market Group;
- MERCOSUR Trade Commission;
- MERCOSUR Parliament;
- Economic and Social Consultative Forum;
- Secretariat of MERCOSUR; and
- MERCOSUR Structural Convergence Fund.

5.4.5.1 Common Market Council

The Common Market Council (CMC) is the highest-level agency of Mercosur with the authority to conduct its policy, and responsibility for compliance with the objects and time frames set forth in the Asuncion Treaty. The Council is composed of the Ministers of Foreign Affairs and the Economy (or the equivalent) of all full MS who preside over the Council in rotating alphabetical order, for six-month periods. Council members meet whenever necessary, but at least once a year.

5.4.5.2 Common Market Group

The Common Market Group, commonly referred to as Grupo Mercado Comun (GMC) is the *executive organ* of Mercosur and is coordinated by the Ministries of Foreign Affairs of the MS. This group coordinate macro-economic policy between members and negotiates trade with non-member countries. It also oversees the implementation of decisions made by the GMC.

This group has the authority to organise, coordinate and supervise Work Sub-groups and to call special meetings to deal with issues of interest to the GMC. Decisions of the GMC, like those of the CMC, are taken by consensus, which require the presence of representatives of all members.

5.4.5.3 MERCOSUR Trade Commission

The MERCOSUR Trade Commission (MTC) attends to everyday trade matters between constituent countries. It is mainly responsible for the group's trade policies. The group can propose changes to the common external tariff and other MERCOSUR guidelines for review by the higher bodies. This body can also refer trade disputes to higher bodies for resolution.

The MTC performs several other tasks, including:

- Apply common trade policy instruments (e.g. trade agreements) with other countries or international entities;
- Discourage unfair trade practices;
- Support elimination / harmonisation of tariff restrictions; and
- Apply consumer protection systems.

5.4.5.4 MERCOSUR Parliament

The MERCOSUR Parliament (MP) (known also as Parlasur or Parlasul) is the parliamentary institution of the Mercosur trade bloc. It is composed of 81 Members of Parliament (MP), 18 from each MS of the bloc – Argentina, Brazil, Paraguay and Uruguay – and 9 from associate members. Although Bolivia, Chile, Colombia, Ecuador and Peru may also hold seats in the Parliament, they do not have voting powers.

The MERCOSUR Parliament is meant to add a dimension of popular representation to MERCOSUR, but this body has *no enforcement powers* and is conclusions are only intended to *advise* MERCOSUR decision-making bodies. In this regard, the Parliament adheres to a majority rule decision-making process as established in its Protocol and internal bylaws. Although rules issued by the Parliament are not binding, it has jurisdiction over matters related to the development of the integration process, e.g. access of new states to the organisation and the protection of democratic systems of MS.

5.4.5.5 MERCOSUR Secretariat

The MERCOSUR Secretariat is based in Montevideo, Uruguay and provides operational support to the organs of MERCOSUR. The Secretariat cannot be defined as an autonomous body with powers to operate and decide on behalf of the block since this body resort to inter-governmental bodies to which it provides technical support.

5.4.5.6 Economic and Social Consultative Forum

The Economic and Social Consultative Forum is an organ that represents the economic and social sectors of its members. Its main functions are to deal with the social dimension, analyse and assess the impact of integration, promote economic and social development and make contributions that will increase civil society's participation in the scheme.

5.4.6 Benchmarking Findings: Similarities and Lessons Learned

5.4.6.1 Similarities: MERCOSUR and SADC

a) Movement towards Regional Integration

Regional integration has been on the political agenda of heads of state in MERCOSUR and SADC countries for several years. Although both RECs have made advances towards establishing a single regional market, none of them have yet fully advanced to the final stage of regional integration, i.e. establishment of a monetary union. MERCOSUR can be characterised as a *customs union*, in the process of consolidation, with common market features. Currently, this regional body negotiates trade agreements with third countries, or regional organisations as a bloc.

SADC, on the other hand has been functioning as a *free trade area* since 2008. Instead of pursuing a sector-wise approach to regional integration (like MERCOSUR), SADC has pursued a developmental approach to integration that focuses on sectoral co-operation, industrialisation and infrastructure development. To this effect, SADC has implemented several projects / programmes across all the stages of regional integration and achieved success across a wide range of areas relating to regional cooperation and integration. One of the most important achievement is that appropriate policy frameworks, protocols and decisions have been put in place, ratified and domesticated in key areas.

Suggestions to Fast-track progress / Critical Success Factors

- Obtain political will from MS to domesticate agreed policies and frameworks at MS level;
- Adopt similar approaches to ratify and domesticate regional decisions;
- Build capacity within public sector institutions at MS level to obtain a greater understanding of the benefits of regional integration and to equip leaders with knowledge to steer the process forward; and
- Introduce a "locking mechanism" to prevent the reversal of commitments made by MS.

b) Problems associated with being land-locked.

Six countries in the SADC are landlocked, while 2 countries in MERCOSUR (Bolivia and Paraguay) are in the interior. Land-locked countries have no direct access to sea-borne trade and major foreign markets and rely on coastal countries for the greater share of their trade. Road transport is the dominant form of transport in both RECs (for both passenger and freight movements). As such regional road transport corridors play an indispensable role in facilitating unimpeded road transport movements within and across member countries.

Land-locked countries in MERCOSUR and SADC face similar challenges. Due to their geographic remoteness, their lack of direct access to the open sea and the high transport and transit costs they face, land transportation costs are often higher than the cost of sea transport, making it difficult for land-locked countries to compete effectively in regional and international markets. High transportation costs are caused by several infrastructure inefficiencies, including missing links along road transport corridors and excessive time delays at inland borders posts.

With a few exceptions, the world's land-locked countries are poor. To change the economic futures of these countries, government intervention is urgently required to develop and fast-track the implementation of cross-border infrastructure programmes to improve the seamless movement of traffic from the interior to coastal countries.

Suggestions to Fast-track progress / Critical Success Factors

- Identify and fast-track the implementation of regional road transport programmes;
- Secure adequate funding and expertise from the private sector for key cross-border infrastructure programmes, not only during project implementation, but also post implementation (evaluation and monitoring);
- Develop a package of trade facilitation incentives for land-locked countries to help them overcome their geographical disadvantage.

c) Border Posts

Border posts in MERCOSUR and the SADC still act as greatest stumbling block to intra-regional trade and travel. In both RECs, ineffective border management processes / systems result in congestion and lengthy delays, with a resultant increase in trade and transportation costs. At most border posts, customs and immigration systems are not integrated. In response, border processes are not tamperproof and are vulnerable to manipulation.

OSBPs have been identified as the preferred solution to address border post inefficiencies in MERCOSUR and SADC. Although OSBP programmes have been identified in both RECs, limited progress is noted towards operationalising OSBPs.

Suggestions to Fast-track progress / Critical Success Factors:

- Secure political will from all stakeholders (public and private sector, communities, business) for the implementation of OSBPs;
- Enter partnerships with the private sector to secure adequate funding, and technical and project management expertise throughout the project life-cycle.

d) Poor Road Safety

Road fatalities per annum in MERCOSUR and Africa (SADC included) are higher than the world average. Road networks in most countries have a poor safety record by world standards. Low road densities, poor condition of road networks, absence of road signage and road markings and old age of the vehicle fleet in selected MS in both RECs contribute to lawlessness and high accident rates, with associated economic and social damages (loss of productivity, job losses and financial hardships).

Suggestions to Fast-track progress / Critical Success Factors:

- Launch road safety campaigns;
- Amend road transport regulations / laws (e.g. lower speed restrictions);
- Intensify law enforcement visibility along road networks; and
- Adopt a zero-tolerance policy and impose severe penalties on road users who do not comply to the law.

e) Adoption of Risk Management Systems

MERCOSUR and SADC support the implementation of risk managements systems / programmes to facilitate trade / transport flows along regional road transport corridors. The implementation of the *AEO programme* in MERCOSUR, is an example of a trade facilitation reform that poses several benefits to the private sector (e.g. simplified customs procedures, reduction in physical and documentary checks) and the public sector (e.g. availability of real-time data on cross-border traffic that is used in risk analysis). Compliant commercial cross-border operators, who received certification, are exposed to faster clearance at commercial border posts.

The Tripartite to which SADC belongs has adopted a trade facilitation initiative, titled *TTTFP* that combines a series of initiatives of all three REC into a single trade and transport facilitation programme that aim to improve border and customs procedures, immigration procedures and transport procedures, inter alia through the harmonisation of trade and transport rules, standards, policies and procedures. The MCBRTA will act as a primary legal instrument towards implementing the TTTFP and introducing quality regulation in the Tripartite. This initiative serves as a steppingstone towards the creation of a single regional road freight market in which commercial road transport operators from all three Tripartite RECs can move freely.

The *OCAS* is an example of a transport reform currently being developed in the SADC. Upon implementation, this initiative will provide several benefits to compliant and certified commercial transport operations. While the AEO and TTTFP are examples of trade facilitation initiatives, the OCAS is an example of a transport reform that will yield several benefits to compliant cross-border road transport operators, i.e. those parties who met prescribed quality criteria and are certified. Compliant transport operators will be awarded by exposing them to less intrusive inspections along regional road transport corridors and faster clearance at border posts (by directing vehicles to the fast clearance lane).

Suggestions to Fast-track progress / Critical Success Factors:

- Intensify stakeholder engagements at national and regional level to get all stakeholders (private and public sector, business, transport) on board with the OCAS reform;
- Provide technical and financial assistance to SADC MS to enable them to implement quality regulation in their territories.

5.3.6.2 Benchmarking Lessons for the SADC

Based on the success of certain trade and transport facilitation initiatives implemented in MERCOSUR, the following reforms are proposed for consideration in the SADC to improve trade and transport facilitation in the region.

a) Fast-track the Implementation of Risk Management Systems

Several trade and transport reforms aimed at improving the unimpeded flow of cross-border traffic are unfolding in the SADC. The TTTFP is on track for implementation in 2023, while the Operator Compliance Accreditation Scheme (OCAS) is also evolving, although at a slower pace.

Although OCAS has been conceptualised in 2010 already, key milestones have been delayed. This is due to several factors, including insufficient cooperation / buy-in between national and regional stakeholders and funding constraints at MS level. It is proposed that, moving forward, structures be put in place at regional level (e.g. monitoring and evaluation body) to conduct project monitoring and to devise mitigation strategies when the need arise.

b) Establish Trade and Transport Working Groups

The existence of sectoral institutions in the MERCOSUR supports the implementation of regional trade and transport initiatives. The Economic and Social Consultative Forum, is an example of an organ that presents the economic sector of MS. This forum performs several tasks, including promoting economic and social development in the region and encouraging the participation of all interest groups (e.g. civil society) in stakeholder engagements.

Given the poor success rate in implementing trade and transport reforms in the SADC, the region may benefit from the establishment of regional trade and transport working groups that comprise of representatives of each MS. Regular engagements will bring all parties on board with current and emerging issues in the trade and transport sectors and will allow for the sharing of ideas / knowledge. Furthermore, working groups can perform a key role in obtaining support for the implementation of regional reforms, as well as in providing technical assistance to MS who experience a shortage of technical and project management resources.

c) Establish a Regional (SADC) Parliament

The MERCOSUR Parliament was established in 2004. Since its establishment, this body has worked tirelessly to reinforce the institutional and popular dimensions of the integration process and to facilitate the process of incorporation of Mercosur´s law by MS. Although success has been reached in various areas (e.g. integration process), the MERCOSUR Parliament adheres to a majority rule decision-making process. This implies that rules issued by the Parliament are not binding. Since the Parliament is not a supra-national authority, it does not have the power to enforce MS to implement regional decisions.

The establishment of a SADC Parliament has been on the card for many years. Progress towards establishing a regional legislature is noted in on-going talks amongst key regional role-players to restructure the governance paradigm. Based on the lessons learned from MERCOSUR, it is proposed that the SADC Parliament be established as an autonomous body that is mandated / empowered to enforce MS to implement regional decisions and to impose sanctions upon defaulting MS. Under this structure, regional reforms will be debated by national assemblies, where-after legal instruments will be domesticated to form part of the legislature of SADC MS.

5.4.7 Conclusion

The benchmarking exercise provided valuable insight into pitfalls that the SADC should avoid and reforms it may consider for implementation to eliminate, or at least minimise the multiplicity of transport challenges experienced along road transport corridors in the SADC. Recommended reforms are discussed in Chapter 6.

6. REPORT FINDINGS AND RECOMMENDATIONS

Chapter 6 presents key report findings and recommendations. These recommendations should be considered for implementation to enable the region to successfully address road transport and trade facilitation challenges that undermine the performance of the region at continental and international platforms.

Ultimate success depends on the willingness of national and regional role-players to support and implement report recommendations. Once strategic reforms have been approved at regional level, MS should domesticate reforms and oversee their timeous implementation. It is envisaged that the downstream impact of these interventions will go a long way towards improving the socio-economic conditions in the region.

6.1 Report Findings

Key study findings are listed below in no order of importance.

6.1.1 Regional Transport Corridors

Cross-border road transport is the dominant mode of transport in the SADC (and Africa) accounting for over 80% total freight and passenger traffic movements, moving along road transport corridors. Unfortunately, strategic regional road transport corridors are plagued by numerous infrastructure constraints that undermine their operational performance. The case is no different for the focus corridors. Tables 33 and 34 here-under depict corridor strengths and weaknesses for the NSC and the TKC.

Table 33: Summary of Corridor Strengths and Weaknesses: North South Corridor

Corridor Strengths	Corridor Impediments
Road networks in some NSC countries, (South Africa) are in an excellent condition	Time delays are experienced at the ports of Durban and Dar es Salaam, resulting in long ship turnaround times and costly port operations.
Several OSBP projects (Kazungula) are nearing completion and are expected to drastically improve border operations, upon completion	Missing road links are found along sections of the NSC, especially in Zimbabwe, Angola and the DRC.
On-going infrastructure programmes at the port of Dar es Salaam has increased the capacity and operational performance of this port and attracted more traffic to this strategic seaport	Excessive time delays experienced are most strategic borders, (e.g. Beitbridge and Kasumbalesa borders) which create a breeding ground for criminal activities
	Corrupt practices do not occur at border posts only, but also along the corridor, especially in the western parts of the region (DRC)
	Irregular placement of formal weighbridges, especially towards the north, cause safety concerns and result in road accidents
	Several law enforcement checkpoints are found along the entire corridor
	Inadequate / absence of inter-modal road/rail interchange infrastructure increase reliance on road transport
	The NSC does not have a formal CMI
Overall Performance	
Due to the multiplicity of infrastructure inefficiencies experienced along the entire corridor, the NSC is not regarded as an efficient transport corridor. In response to corridor constraints in Zimbabwe, more South African cross-border road transport operators are diverting cross-border traffic through Botswana.	

Source: Table created for study

Table 34: Summary of Corridor Strengths and Weaknesses: Trans Kalahari Corridor

Corridor Strengths	Corridor Impediments
Road networks in all TKC countries are in a good condition. The entire road network is a surfaced road	Incomplete road networks and narrow roads in Namibia pose a safety threat to cross-border traffic.
The port of Walvis Bay has established itself as a major transshipment point in the SADC. The finalization of major construction programmes, especially the new container terminal, has significantly increased capacity at this port and has attracted regional and international traffic	Corrupt practices occur at law enforcement checkpoints and at border posts
The port of Walvis Bay is congestion free and its facilities are of a world-class standard	A shortage of formal truck stops along the corridor increase the risk for road accidents to occur and threaten the safety of drivers, vehicles and commodities transported.
Infrastructure upgrades and expansion at the port of Walvis Bay are being supported with on-going road maintenance programmes on all 4 Walvis Bay corridors	The railway network along the TKC is characterised by several missing links. As a result, cross-border traffic cannot move from Walvis Bay to Gauteng via rail. The absence of inter-modal road/rail interchange infrastructure increase reliance on road transport
A strong CMI, the TKCMC oversee the efficient functioning of the TKC	Steady increase in abnormal load traffic (vehicles carrying copper to and from the Port of Walvis Bay) lower speed limits on the corridor and cause damage to the road network
	Discrepancy in road user charges levied on cross-border operators along the corridors create an unlevel playing field for commercial operators, especially South African operators
	Excessive time delays are experienced at all border posts along the TKC. Only the Buitepos / Mamuno border is earmarked as a OSBP candidate
Overall Performance	
Although the TKC faces similar infrastructure inefficiencies than the NSC, the corridor is widely acknowledged as a relatively well-functioning transport corridor. Massive infrastructure improvements at the port of Walvis Bay is supported with ongoing road infrastructure programmes to facilitate cross-border traffic flows. The TKCMC is playing an effective management role and has achieved success obtaining support from diverse corridor role-players for on-going corridor reforms	

Source: Table created for study

6.1.2 Border Posts remain the Greatest Stumbling Block to Intra-Regional Trade and Travel

Due to the multiplicity of infrastructure impediments experienced at strategic border posts in the region, inland border posts have emerged as the greatest impediments to intra-regional trade and travel. Time delays are more severe along NSC border posts, especially at the Beitbridge and Kasumbalesa borders where commercial truck drivers can queue for days, waiting for their traffic to be released.

Border management reforms in the SADC are often corridor segment focused, which negates the overall impact of improvements on the entire corridor. Although time delays at the Chirundu border post decreased after its transformation into an OSBP, the impact of this initiative on the entire NSC was marginal since delays have been shifted to other points along the same corridor. This clearly illustrates that border management reforms that are implemented in isolation have a limited impact on trade and transport facilitation across regional transport corridors.

In response to the poor performance of strategic border posts, the OSBP initiative has been approved at regional level to improve border post constraints. Despite the inherent advantages of transforming two-stop borders into one-stop borders, limited progress is witness towards implementing OSBPs in the region. To date only one of the 18 prioritised OSBP borders (e.g. Chirundu) has been transformed into a functioning OSBP. The construction of facilities has been completed at the Lebombo / Ressano Garcia border, although legal framework has not yet been finalised.

Although construction work at the Kasungula and Kasumbalesa borders are nearing completion, legal frameworks that provide for the extra-territorial application of laws, should be finalised by MS before these borders can be transformed into OSBPs and the benefits of this reform be enjoyed by role-players in the trade and transport environments.

Limited progress towards establishing OSBPs can in main be attributed to poor political support amongst corridor role-players and funding constraints at MS level. To bring about improvement, SADC countries is left with little choice but to adopt innovative solutions that combine international, public and private sources of funding for infrastructure development.

6.1.3 Trade and Transport Facilitation Reforms

In response to the multiplicity of trade and transport impediment facing the SADC, several reforms have been approved throughout the Continent to improve the seamless movement of cross-border traffic within, and across MS.

Some initiatives are based on a corridor focus (e.g. establishment of truck stops along the TKC and infrastructure programmes at port of Walvis Bay port), while other initiatives, notably the TTTFP focus on a greater geographical area that incorporate several RECs, including the SADC. Unfortunately, the SADC region enjoys a bad track record insofar the implementation of strategic regional infrastructure projects is concerned. An example of this tendency is witnessed in the poor progress made towards implementing OSBPs in the region. Various reasons are cited for this tendency, including poor political will, funding constraints, a lack of sanctions against defaulting MS and weak enforcement and implementation capacity at MS and regional level.

Since regional infrastructure reforms are large-scale and long term in nature and capital intensive, it is imperative that public sector role-players adopt a holistic approach and engage with corridor role-players regularly to obtain and maintain support for the implementation of strategic regional initiatives. CMC's can fulfil an important role in bringing corridor role-players together and in advocating support for strategic reforms.

The establishment of monitoring and evaluation bodies (M&Es) at regional and MS level can fast-track the implementation of regional reforms through observing and reviewing progress made and comparing actual performance against project plans to identify problems and determine where change is needed.

6.1.3 Cross Border Volumes / Corridor Performance Monitoring

Accurate data on cross-border flows in the SADC, and other African RECs are not readily available. The absence of reliable corridor data makes it difficult for cross-border operators to pre-plan their journeys and to adjust their trips according to traffic conditions. On-going reforms in the region and the Tripartite attempts to close this gap.

Within the SADC, the TKCMS has joined hands with the C-BRTA and is currently developing a corridor performance system for the TKC, that upon completion, will measure the performance of the entire corridor from the port of Walvis Bay until it terminates in Gauteng province in South Africa. Success in developing an online system however, depends on the ability of MS to secure sufficient funds for project execution.

The Tripartite has recently launched a web-based corridor performance monitoring system that measures border crossing and route trucking times for several corridors in the East and Southern African region. Cross-border operators whose countries are members of the Tripartite alliance can access this online monitoring tool to obtain real-time data on traffic flows at chokepoints (e.g. border crossings). Although the Tripartite system is useful insofar it performs detailed monitoring at delay points, it does not perform corridor-wide monitoring (between origin and destination points).

To bring about lasting improvement, functioning CMIs in the SADC (e.g. Walvis Bay Corridor group and TKC) should familiarise themselves with existing monitoring systems (Tripartite system) and liaise with relevant role-players (e.g. clearing agents, cross-border operators, Ministries of Transport) to reach agreement on the development of corridor-wide monitoring systems for selected corridors. To allow the online sharing of corridor data between different online platforms, ICT systems and procedures should be harmonised Care should be taken to ensure new systems can interface with existing systems (Tripartite monitoring tool). Private sector support for this initiative is imperative, not only to secure funding, but also to accrue technical and management skills for project execution.

6.1.4 Operator Compliance

Given the scarcity of reliable corridor data, information pertaining to operator compliance is not readily available. Most info is gathered during law enforcement inspections, which is conducted by law enforcement officials that capture information manually. Joint law enforcement inspections are still the exception, rather than the norm.

In the absence of online electronic systems, intelligence pertaining to operator compliance is not widely shared with relevant authorities (e.g. law enforcement and regulatory institutions) in the region. This gap highlights the need to the development of online monitoring systems

that capture, process and disseminate information in real-time to law enforcement and regulatory agencies in the SADC.

6.1.5 International Benchmarking Findings

The international benchmarking was conducted to draw on the successes and lessons learned by The Greater Mekong Sub-Region in Asia and the MERCOSUR grouping in South America. The information obtained during this exercise served as input data into the development of study recommendations that are discussed in greater detail in section 6.2.

6.1.5.1 Greater Mekong Sub-region – Asia

Table 35 outlines key corridor challenges and corridor reforms implemented in the Greater Mekong Sub-region to improve trade and transport facilitation within the region. The SADC should take note of the reforms implemented in the Greater Mekong since many of them have not yet been implemented in the SADC (or any other African REC).

Table 35: Greater-Mekong Sub-Region

Corridor Challenges	Corridor Reforms
Border posts remain the weakest link that undermine the seamless movement of traffic along economic transport corridors. Excessive time delays experienced are experienced at all inland border posts	The adoption of the *economic corridor concept* has rendered success insofar improved physical connectivity along regional road transport corridors has spurred cross-border trade and reduced travel time and cost.
A multiplicity of *soft infrastructure impediments* undermines the seamless movement of cross-border traffic, with improvements in hard infrastructure outpacing the implementation of soft infrastructure reforms.	*Single-stop inspections,* bring together different corridor role-players and has significantly reduced drug and human trafficking, while also improving operator compliance.
Private sector participation in the execution of trade and transport reforms remain constricted.	*A single document*, (the CBTA) incorporates all elements associated with cross-border transport into one document and is actively used to further the harmonisation agenda in the region.
Institutional inefficiencies prevail within public sector institutions and are partly to blame for inadequate progress made towards implementing trade and transport facilitation reforms.	*Customomised training programmes* are offered to law enforcement officials. This venture proofed to be successful insofar the level of professionalism amongst law enforcement officials have improved significantly. .

Source: Table created for study

The findings in the above table illustrates that the Greater Mekong region faces similar infrastructure challenges than the SADC. Border posts act as the greatest impediment to intra-regional trade and regional integration in Greater Mekong, and the SADC. Likewise, soft infrastructure impediments are more prevalent than hard infrastructure impediments and cause most delays along corridors in the Greater Mekong region, just as in the SADC. Private sector participation in funding and management over the implementation of trade and transport reforms is limited in both RECs.

The following lessons learned are note-worthy for the SADC:

- The transformation of transport corridors into *economic corridors*, focusing on the entire supply chain, instead of certain segments only, has gone a far way towards eliminating missing links along economic corridors and in advancing physical connectivity between Greater Mekong countries;
- Success in the development and offering of *tailor-made training programmes* to law enforcement officers in the Greater Mekong region, poses an opportunity to the SADC to establish a regional training academy that offers tailor-made training programmes to prioritised public sector role-players;
- *Single-stop inspection points,* bringing together different corridor role-players should be actively promoted along all corridors in the SADC. Not only will this reform eliminate the number of stops for cross-border operators, but will it also act as a focal point for the collection of corridor data.

6.1.5.1 Mercosur

Table 36 summarises important corridor challenges experienced in the Mercosur as well as reforms implemented to date that focus on reducing corridor constraints.

Table 36: Mercosur

Corridor Challenges	Corridor Reforms
Updated information on trade and transport traffic movements is not readily available.	Mercosur has reached an *advanced stage* of *regional integration*. Although still being recognised as a customs union, this REC is in the process of advancing to a common market
The *low percentage of paved roads* serve as an important indicator of inadequate road infrastructure	The successful implementation of the *AEO programme* has streamlined customs processes that resulted in faster customs clearance
Landlocked countries face *higher NTB's* than their coastal MS in reaching regional and international markets.	*Trade and transport working groups* meet regularly to obtain support for, and advance the implementation of regional reforms
Infrastructure inefficiencies at *border posts* result in excessive time delays at inland borders. Although several OSBP projects have been prioritised, limited progress is witnessed towards their completion.	The *Mercosur Parliament* encourage MS to implement regional reforms and has played a strategic role in advancing the regional integration agenda.
Poor road infrastructure and the use of *old vehicles* aggravate congestion and increase road accidents / facilities.	

Source: Table created for study

Table 36 reveals similarities in corridor challenges faced by commercial cross-border road transport operators in Mercosur and SADC. As is the case in the SADC, border post impediments undermine the seamless movement of traffic within the Mercosur sub-region. Furthermore, the efficiency of transport corridors in Mercosur is undermined by the existence of several NTB's (soft infrastructure inefficiencies). Land-locked countries in both RECs also face higher trade and transport costs in reaching regional and international markets than their coastal neighbours.

Border posts act as the greatest impediment to intra-regional trade and regional integration in Greater Mekong, and the SADC. Likewise, soft infrastructure impediments are more prevalent than hard infrastructure impediments and cause most delays along corridors in the Greater Mekong region, just as in the SADC. Private sector participation in funding and management the implementation of trade and transport reforms is limited in both RECs.

Regarding the implementation of trade and transport facilitation reforms, the SADC can learn from the following benchmarking lessons:

- The implementation of *risk management systems*; in the SADC that awards compliant operators (through time savings at border posts) will improve trade facilitation in the region. Although some countries in the SADC have adopted similar reforms (SARS reform in South Africa), it is imperative that all customs agencies in the SADC follow suit to further the harmonisation agenda and to ensure that all commercial cross-border operators in the region enjoy the same benefits;
- The establishment of *trade and transport working group*s in the SADC, comprising of experienced public and private sector individuals with a mixture of skills, qualifications and experience, can create a solid platform for the exchange of ideas and obtaining political will to implement strategic regional reforms; and
- The establishment of an *independent legislature* (SADC Parliament) to provide oversight and to enforce the implementation of regional reforms at MS level will play a strategic role in improving the implementation rate of prioritised regional trade and transport facilitation reforms and will drive the SADC forward towards the establishment of a single regional market.

6.2 List of Study Recommendations / Reforms

Chapters 1 – 4 of this report provided insight into infrastructure inefficiencies that undermine the seamless movement of cross-border traffic and strategic reforms that have been approved to eliminate, or at least minimise infrastructure impediments. Chapter 5 investigated transport and trade reforms implemented in South-East Asia and South America. Both global RECs experience similar socio-economic and transport challenges than the SADC.

Based on the findings of this report, study recommendations (reforms) are categorised as follows:

- Recommendations emanating from 2020 / 21 ASCBOR; and
- Recommendations emanating from the Benchmarking Exercise.

6.2.1 Recommendations emanating from the Study Findings.

6.2.1.1 Implement Prioritised Regional Road Transport Projects

- **Description of Reform**

The condition of road transport infrastructure in the region varies quite significantly. South Africa has the best road network, while road infrastructure in countries in the Northern and Western parts of the region (e.g. Zimbabwe and DRC) are in a poor condition. Connectivity is compromised in areas where there are missing road inks. This problem is particularly severe in Angola, Tanzania and the DRC. Missing road links increase the distance travelled by

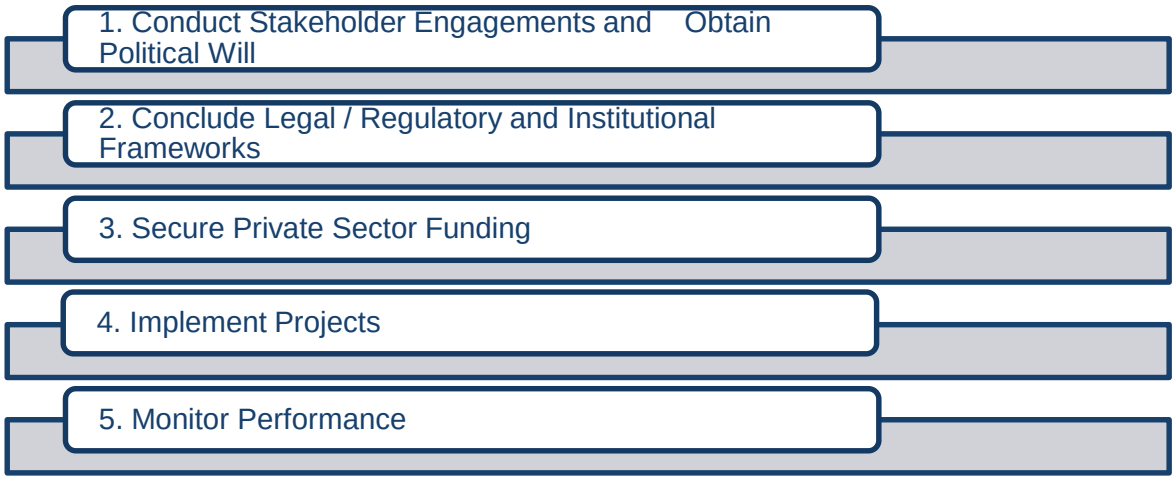
vehicles, leading to longer journey times and higher operation costs, while also increasing the risk of vehicle breakdowns, accidents, cargo damage, increased fuel consumption and longer journey times.

The SADC Regional Infrastructure Development Master Plan (RIDMP) prioritises several road projects for the region to improve the condition of transport infrastructure and eliminate missing links along the RTRN. Although information pertaining to the project status of prioritised road transport projects is not readily available, engagements with several role-players (e.g. SADC Secretariat) revealed that many projects are still in the project planning / conceptual phases. These projects await funding to prepare them for bankability.

- **Steps associated with Implementing the Reform**

The steps associated with implementing prioritised regional road transport projects are depicted in figure 10 below:

Figure 10: Implement Prioritised Regional Road Transport 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. The legal / regulatory and institutional review should culminate in the conclusion of formal agreements between MS (e.g. MoU's) whereby the rules and conditions of each party are spelled out.

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.

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. Simultaneously, the scope for corruption will be minimised.

The recent launch of an online SADC infrastructure web portal provides invaluable project information (e.g. 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.

- **Responsibility**

The implementation of regional road transport projects involves various role-players, including:

- Public-sector role-players (e.g. Ministries of Transport);
- Development Finance Institutions;
- Development Assistance (donor agencies);
- Private Sector;
- Developing Countries (China and India).

- **Envisaged Impact of Reform**

The following benefits are associated with implementing this reform

- Improved cross-border road transport movements;
- Enhanced regional integration;
- Time and cost savings for cross-border road transport operators;
- Just-in-time deliveries and quicker turnaround times;
- Improved economic growth and development.

6.2.1.2 Transform Border Posts into OSBPs

- **Description of Reform**

Inland border posts are regarded as a major stumbling block to the unimpeded flow of cross-border traffic. All borders face several hard and soft infrastructure inefficiencies. Although the SADC RIDMP prioritises the transformation of 18 traditional two-stop borders into OSBPs, only 1 border has been operationalised as a functioning OSBP.

- **Steps associated with Implementing the Reform**

Figure 11 outlines the steps associated with transforming traditional inland borders into OSBPs.

Figure 11: Implement One Stop Border Posts

Source: Figure created for study

Step 1: **Conduct Stakeholder Engagements**

Stakeholder engagements should be conducted to establish political will for the implementation of this reform. Under international law, it is generally agreed that the application of national laws is limited to the territory of a country. Consequently, OSBPs rely on the principle of extra-territorial application of laws, which allows a country to extend the application of specific national laws outside of its own territory. The implementation of OSBPs therefore requires a detailed analysis of the legislative, regulatory and institutional frameworks governing the operations of border agencies.

Numerous agencies are involved in border operations. These agencies need to operate in a coordinated manner to minimise duplications. The appointment of a lead management agency will assist the process of coordinating OSBP preparatory activities and post-implementation coordination. However, the choice of a lead agency by any MS should purely be based on national considerations.

Step 2: Conclude Legal / Regulatory and Institutional Frameworks

The legal and regulatory review should culminate in the conclusion of bilateral agreements between neighbouring countries in which the parameters of establishing OSBPs are spelled out. It also required that such arrangement be entrenched in the domestic laws of each country

by way of an appropriate Act of Parliament with an overriding effect over all border control legislation as to give legal effect to the provisions of the MoU and the principles of extra territoriality and hosting arrangements. The legal and regulatory review should culminate in the conclusion of bilateral agreements between neighbouring countries in which the parameters of establishing OSBPs are spelled out.

Step 3: Establish Joint Technical Working Groups

This step encompasses the establishment of a joint technical working group that should comprise of representatives of all the border agencies operating at the border. It is proposed that the chairing of the technical working group and hosting of meetings be conducted on a rotational basis between the two MS.

Step 4: Establish Collaborative Single Window Systems

The OSBP reform goes hand in hand with the establishment of collaborative single window systems. In moving towards single window systems, border crossing procedures should firstly be simplified and harmonised to enable the electronic capturing and sharing of information amongst border agencies. ICT therefore serves as a critical component of collaborative single window systems. ICT allows for the efficient use of limited resources to manage borders by facilitating intra-inter connectivity of agencies for implementing responsible risk management systems and for understanding mobility and trade patterns.

Step 5: Conduct Baseline Surveys

Baseline surveys should be carried out at all prioritised OSBPs. The purpose of these surveys is to assess the situation prevailing at both sides of the border that are to be merged into an OSBP before any activities commence. Information that should be collected includes traffic flows through the border, disaggregated as much as possible (e.g. passenger vehicles, small buses, medium buses, taxis, container carriers, break-bulk vehicles and tankers) and average time taken to clear the borders for each class of vehicle. This information should be used to project traffic flows over the long-term (10 to 20 years) and design the OSBP so that it is able to accommodate increases in traffic flows.

Step 6: Construct Hard Infrastructure and Operationalise OSBPs

Further to addressing soft infrastructure components, OSBP facilities such as offices for border officials, equipment, warehouses and parking need to be designed and constructed / expanded to facilitate seamless traffic movements through OSBPs. Once funding has been secured for construction, ToR drafted, and SPs appointed, the actual construction of OSBPs will commence.

The design of hard infrastructure should conform to the principles of SMART corridors and risk-based regulatory initiatives. For example, infrastructure layout should at borders should provide for the construction of green (fast) lanes that will be used exclusively by cross-border operators who obtained pre-clearance prior to entering the border. These operators will enjoy the benefits of faster clearance and a reduction in time spent at border posts. While all border posts require physical facilities for border operations, the level of facilities required depends on the type and size of operations at a border post.

- **Responsibility**

The implementation of OSBPs is capital-intensive and require collaboration between public and private sector bodies, including:

- SADC Member States;
- Public-sector role-players (e.g. Ministries of Transport);
- Development Finance Institutions;
- Development Assistance (donor agencies);
- Private Sector.

- **Envisaged Impact of Reform**

The following benefits are associated with the implementation of OSBPs:

- Improved border management processes;
- Reduction in time spent at OSBPs;
- Reduction in travel time and cost;
- Increase in intra-Africa trade and transport flows;
- Enhanced economic growth and development.

6.2.1.3 Implement Regional Corridor Performance Monitoring Systems

- **Description of Reform**

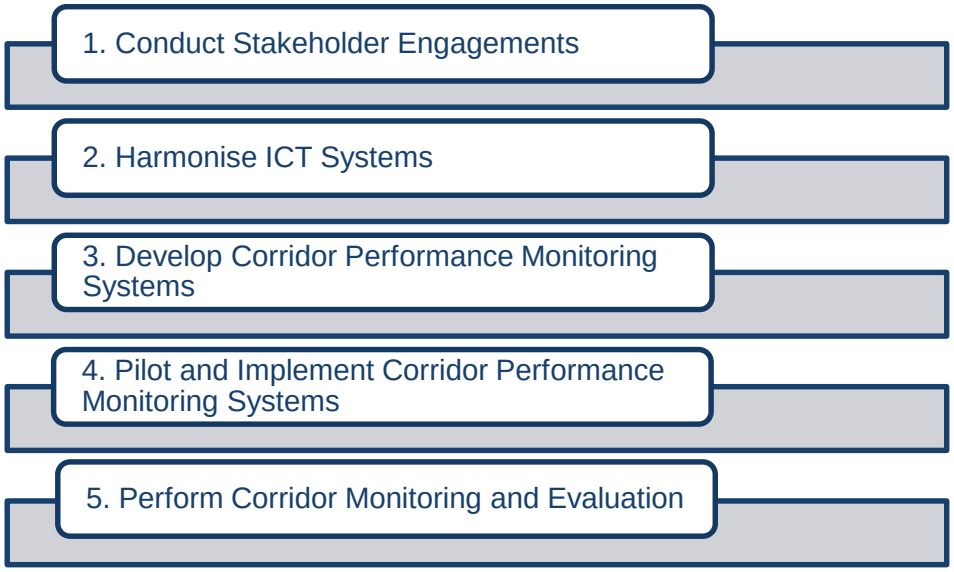
Real-time data on road transport traffic flows in the SADC is not readily available. In terms of on-going developments, the Tripartite recently implemented a web-based corridor performance monitoring system that measures border crossing and route trucking time for several corridors in the East and Southern African region. As a member of the Tripartite Alliance, cross-border operators who conduct business for reward in the SADC can access this online monitoring tool to obtain real-time data on traffic flows at selected choke-points (e.g. border posts) along regional road transport corridors. A limitation of this system is that it only collects data at fixed delay points and therefore does provide an accurate picture of overall corridor performance between origin and destination points.

This reform supports the development and phased implementation of on-line corridor performance monitoring systems for all strategic transport corridors that traverse the region. System developers should ensure that new monitoring systems can interface with existing systems (Tripartite monitoring tool).

- **Steps associated with Implementing the Reform**

Figure 12 encapsulates the steps associated with implementing this reform.

Figure 12: Implement Regional Corridor Performance Monitoring Systems



Source: Figure created for study

Step 1: Conduct Stakeholder Engagements

Strategic engagements with all relevant corridor role-players should be conducted to appreciate the need for this reform. Where CMIs exist, scheduled CMI meetings can provide a platform for advocating the importance of online corridor performance monitoring systems and the benefits is pose for corridor users. Stakeholder buy-in / support is key since ultimate success depends on the willingness of relevant parties to share relevant corridor information that will feed into corridor-wide online monitoring system(s).

Step 2: Harmonise ICT Systems

Since the SADC does not currently have online monitoring systems that 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 enable the online sharing of corridor data between different online platforms, ICT systems / software 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 timeously 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 (see reform 6.2.1.4).

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.

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 & TKC) will enable decision-making bodies to identify choke-points along corridors that require attention. At the same time, real-time data may assist cross-border operators to select the least trafficked routes to complete their journeys in time.

- **Responsibility**

Success in establishing regional corridor performance monitoring systems depend on several parties working in concert throughout project execution. Of specific importance are the following groups:

  - Public sector role-players (e.g. customs authorities, regulatory authorities and Ministries of Transport);
  - Selected private sector role-players (e.g. freight forwarders);
  - Research institutions;
  - Corridor Management Institutions (e.g. TKCS);
  - Development Finance Institutions.

- **Envisaged Impact of Reform**

The following benefits are associated with the implementation of online corridor performance monitoring systems for the region:

  - Availability of real-time data on traffic flows;
  - Improved traffic flows along regional road transport corridors;
  - Evidence-based decision-making by public sector role-players in the region;
  - Improved facilitation of traffic flows along regional road transport corridors;
  - Improved transport competitiveness;
  - Sustainable economic growth and development.

6.2.1.4 Implement Cross-Border Telematics

- **Description of Reform**

It is imperative that on-going developments in the region (e.g. establishment of corridor performance monitoring systems and MCBRTA) be supported by the mandatory deployment or fitness or telematics in cross-border road transport vehicles to enable the tracking of cross-border vehicles along regional transport corridors.

This reform poses several benefits, including improved monitoring of cross-border vehicles by transport regulators, enhanced safety and security and a reduction in delays along road transport corridors. This recommendation can be implemented as a stand-alone initiative although more benefits may be obtained it this reform is integrated with other on-going initiatives (e.g. development of corridor performance monitoring systems).

- **Steps associated with Implementing the Reform**

Figure 13 encapsulates the steps associated with implementing this reform.

Figure 13: 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 in the region, cross-border road transport operators, providers of ICT services, manufacturers of technologies) to convince interest groups, especially cross-border operators, to embrace telematics as a standard practice in cross-border road transport operations.

Step 2: Harmonise ICT Infrastructure / Systems

If it imperative that the ICT infrastructure / systems used by regulatory authorities in the region be harmonised to enable the sharing of relevant data (e.g. traffic flows along key corridors and through border posts) with relevant parties.

Step 3: Develop the Cross-Border Telematics Programme

Agreement should be reached on the preferred cross-border telematics programme(s) that will be fitted into the vehicles of commercial cross-border road transport operators. Prior to purchasing or developing a custom-made telematics programme, regulatory authorities should reach agreement on the type of ICT software / infrastructure that will be used by public sector bodies to enable the sharing of data in real-time.

Step 4: Regulatory Review

The step involves a review of regulatory instruments (e.g. cross-border regulations and legislation) to legalise the use of telematics in the vehicles of cross-border road transport operations. The cost of telematics can be included in the permit issuing fee and be handed to cross-border operators when they collect their permits.

Step 5: Implement, Monitor and Evaluate

Step 5 involves actual implementation of telematics programme, followed up by continuous Monitoring and Evaluation (M&E) to identify glitches and to refine the telematics programme.

- **Responsibility**

The following parties should work in concert to oversee the successful implementation of this reform:

- Regulatory authorities in SADC MS;
- Ministries of Transport;
- Cross-border road transport operators;
- Private Sector.

- **Envisaged Impact of Reform**

The implementation of telematics in cross-border vehicles can materialise in the following benefits:

- Improved visibility of cross-border vehicles;
- Improved law enforcement;
- Improved compliance and road safety;
- Time and cost savings for cross-border road transport operators.

6.2.1.5 Establish a Regional Monitoring and Evaluation Body

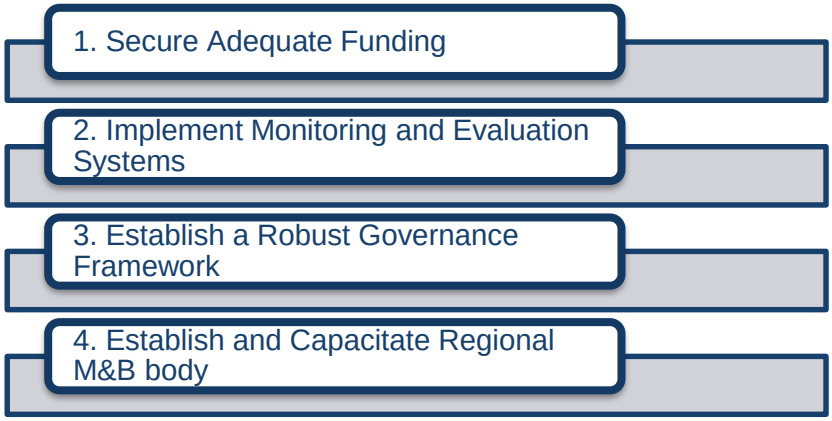
- **Description of Reform**

Given the poor implementation status of strategic regional transport projects, this reform proposes the establishment of an independent Monitoring and Evaluation (M&E) body at regional level to observe and review progress of key regional infrastructure projects, particularly those outlined in the SADC RIDMP and PIDA, and to develop mitigation strategies to accelerate performance, as and when required.

- **Steps associated with Implementing the Reform**

Key-actions associated with operationalising this reform is illustrated in Figure 14.

Figure 14: 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 should to sought 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 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.

- **Responsibility**

SADC MS are collectively responsible for the successful implementation of this reform.

- **Envisaged Impact of Reform**

The establishment of a regional M&E body to provide oversight and oversee the timeous implementation of strategic regional reforms pose several benefits, including:

- Timeous delivery of strategic regional transport projects through continuous monitoring and evaluation;
- Availability of credible, results-based information;
- Improved decision-making processes;

- Existence of a robust basis / platform for raising funds.

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

- **Description of Reform**

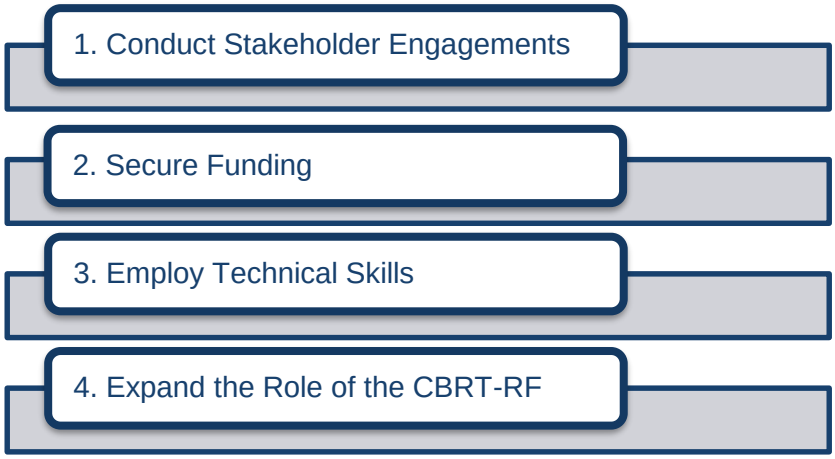
The infrastructure challenges and operational bottlenecks experienced by cross-border road transport operators along regional road transport corridors can be resolved faster and more effectively if the CBRT-RF monitor the impact of regional programmes and report on impediments at regional forum meetings that comprise of delegates from the respective SADC MS.

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.

- **Steps associated with Implementing the Reform**

Key-actions associated with operationalising this reform is illustrated in Figure 15.

Figure 15: Expand the Role of the C-BRTRF



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.

- **Responsibility**

Selected public-sector role-players in SADC MS, notably Ministries of Transport, as well as regulatory authorities in the region are responsible to execute this reform.

- **Envisaged Impact of Reform**

The following benefits can be obtained once the role of the CBRT-RF has been amended:

- Greater coordination and more effective monitoring of regional programmes;
- Accelerated implementation of regional programmes;
- Reduction in corridor constraints;
- Improved harmonisation and facilitation of cross-border operations.

6.2.1.7 Re-engineer Permit Issuing Processes and Systems in the SADC

- **Description of Reform**

Cross-border operators who conduct business for reward in the SADC in most instances, apply for cross-border permits at the offices of regulatory authorities in SADC MS. Long queues and regular service disruption, due to inadequate ICT connectivity at centralised service points, undermine service delivery and lower the demand for cross-border permits.

Inefficiencies with the issuing of cross-border road transport permits SADC encourage cross-border operators to obtain fraudulent permits. In some countries, it is cheaper for operators to pay a penalty for non-compliance if they are caught with fraudulent permits, that it is to go through the tedious and costly process to apply for a valid cross-border permit.

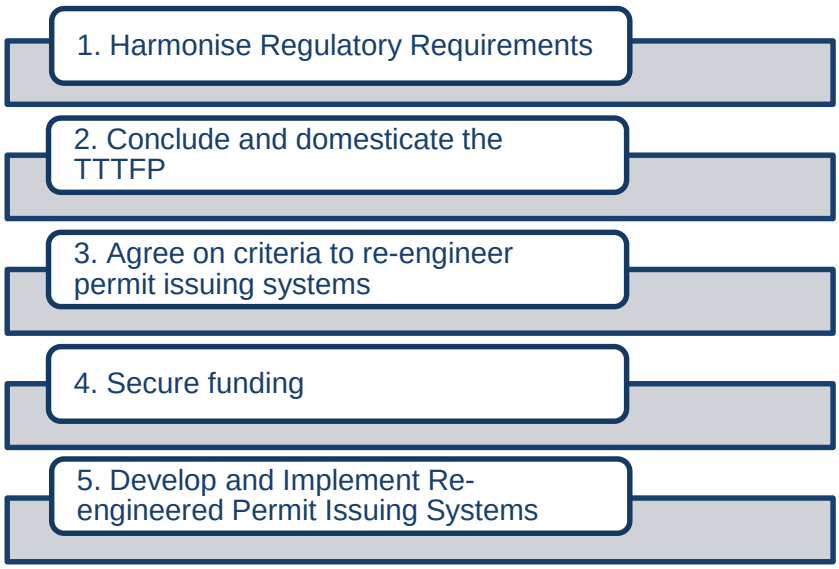
Matters are aggravated by the non-alignment of tariffs to obtain cross-border permits. Currently, South African road freight operators pay much more for a cross-border freight permit than what operators from other SADC countries pay. The status quo creates an uneven playing field that penalises South African operators. It also calls for intervention to re-engineer permit issuing processes in the region.

The Cross-Border Road Transport Agency has taken the lead in the SADC and is currently developing an electronic permit issuing system that is due for implementation during 2021. The new electronic system will enable South African operators to apply for permits from the comfort of their work / homes. Supporting documents can be submitted electronically. Operators can either collect e-permits from the offices of the C-BRTA in Highveld, South Africa, or can authorise the Agency to distribute permits to them via courier services.

- **Steps associated with Implementing the Reform**

Key-actions associated with operationalising this reform is illustrated in Figure 16.

Figure 16: 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 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 6.2.1.3) that will store and disseminate 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. As such it is advised that the public sector collaborate with the private sector to assist with funding, as well as to provide technical (project management) 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. South Africa, through the C-BRTA drives this initiative and intends to implement an online permit issuing system during 2021. Instead of re-inventing the wheel, it is proposed that regulatory authorities in the region collaborate with the C-BRTA to learn from their experience and to investigate the possibility of customising and using the South African permit issuing system in other SADC countries.

- **Responsibility**

Regulatory authorities in the respective SADC MS are responsible for implementing this reform.

- **Envisaged Impact of Reform**

The following benefits can be accrued once regulatory authorities have implemented online permit issuing systems:

- Improved regulation of cross-border road transport movements;
- Improved harmonisation of the regulatory environment;
- Increased value-add to cross-border road transport operators;
- Improved competitiveness of the cross-border road transport industry.

6.2.1.8 Establish Dedicated Cross-Border Ranking Facilities in all SADC MS

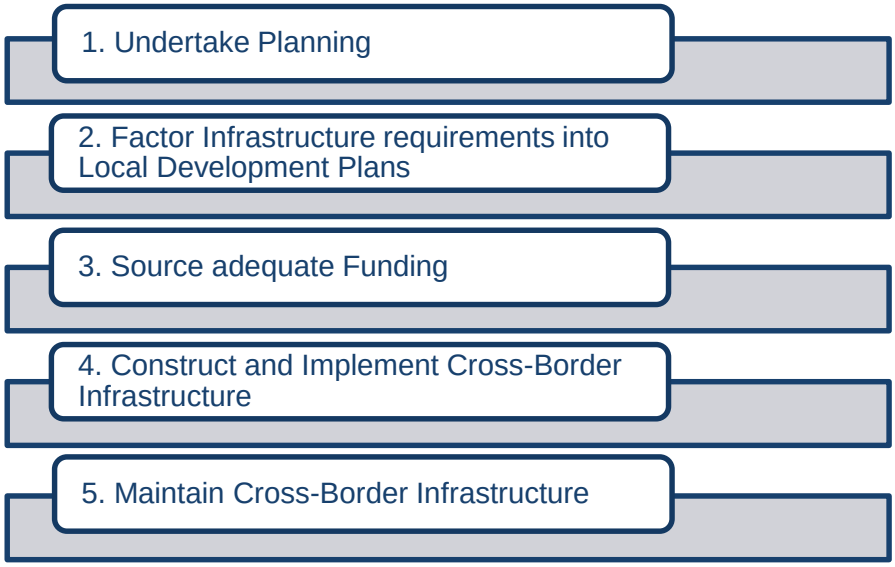
- **Description of Reform**

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 cross-border passenger transport in the region.

- **Steps associated with Implementing the Reform**

Key-actions associated with operationalising this reform is illustrated in Figure 17.

Figure 17: 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.

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.

- **Responsibility**

The following parties should liaise in seeking approval for this reform:

- Ministries of Transport in SADC MS;
- Provincial and Local authorities in SADC MS;
- Road Transport Regulators;
- Private sector.

- **Envisaged Impact of Reform**

The following benefits can be obtained once dedicated ranking facilities have been implemented across the region:

- Provision of quality, safe and accessible ranking facilities, including storage, ablution, booking offices and adequate lightning;
- Provision of secure off-street loading holding facilities for cross-border vehicles;
- Timeous departure of cross-border vehicles;
  Eliminating of on-street ranking for cross-border services.

6.2.1.9. Implement Risk-Based Systems

- **Description of Reform**

Several risk-based initiatives are unfolding in the region, including the MCBRTA and OCAS that seek to improve the regulatory environment through enhancing regulatory efficiency, operator compliance and road safety. Once risk-based regulatory systems have been implemented it will pose several benefits to compliant operators who will be rewarded for good behaviour. Examples include fewer stops (and law enforcement checks) for compliant operators that will result in improved transport efficiency.

- **Steps associated with Implementing the Reform**

Figure 18 outlines the actions associated with implementing risk-based systems in the SADC.

Figure 18: Implement Risk-based Regulatory Systems

Step 1: Conduct Stakeholder Engagements

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

Step 2: Review of Regional Regulatory Environment

The implementation and operation of risk-based regulatory systems in the SADC is guided by the MCBRTA. MS should review and align existing national legal instruments (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. The tools must re-define the regulatory requirements, procedures, standards and systems for regulatory authorities. 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 systems should be piloted over a period to test for system errors and to improve / update systems, where-after risk-based regulatory systems should be implemented. Continuous monitoring should be implemented to monitor performance and to plan for improvements.

- **Responsibility**

Several parties are responsible for the implementation of risk-based regulatory systems, including:

- Ministries of Transport in SADC MS;
- Road Transport Regulators;
- Law enforcement agencies;

- Private sector;
- Cross-border road transport operators.

- **Envisaged Impact of Reform**

The following benefits can be obtained once risk-based regulatory systems have been operationalised:

- Decrease in delays and transit times along regional road transport corridors;
- Optimisation of resources;
- Improved compliance by cross-border road transport operators;
- Reduction in bribery and corrupt activities along road transport corridors.

6.2.2 Recommendations emanating from the Benchmarking Exercise

The benchmarking review of corridor reforms implemented in Greater-Mekong and Mercosur yielded important lessons for the SADC insofar some initiatives can greatly benefit the region once they have been implemented. Some of the recommendations listed below overlap with on-going developments in the SADC (e.g. talks to establish a regional legislature). However, reforms are still in early phases of the project life cycle, with several actions still required before reforms will reach the implementation phase.

6.2.2.1 Establish a Regional (SADC) Parliament

- **Description of Reform**

Unlike MERCOSUR, the SADC does not have an independent regional legislature that can hold MS accountable for the implementation of strategic reforms. This limitation is cited as a major reason for the poor implementation of strategic regional projects / programmes. In the absence of a regional legislature, the implementation of continental and regional reforms depends on the willingness and political will of SADC governments to carry out regional decisions at MS level.

Progress towards establishing a SADC Legislature is noted in on-going talks amongst key regional role-players to restructure the governance paradigm. Unlike the MERCOSUR Parliament that adheres to majority-rule decision making, the proposal is that the SADC Parliament be established as an autonomous body, that given its legal character, 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.

- **Steps associated with Implementing the Reform**

Figure 19 depicts key actions associated with establishing a SADC Parliament.

Figure 19: Establish a Regional Parliament

Source: Figure created for study

Step 1: **Conduct Stakeholder Engagements**

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 updated 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.

- **Responsibility**

Several parties are jointly responsible for the implementation of a SADC Parliament. Of specific importance are the following role-players:

- SADC Member States;
- Corridor Management Institutions;
- SADC Secretariat;
- SADC-PF.

- **Envisaged Impact of Reform**

The benefits associated with a regional legislature include:

- Improved governance, transparency and accountability at MS level;
- Improved delivery of regional commitments;
- Reduction in corrupt activities.

6.2.2.2 Establish Single-Stop (Joint) Law Enforcement Inspections

- **Description of Reform**

The Greater Mekong Sub-Region initiated single-stop joint law enforcement inspections to fight organised crime in the region. This reform, which brings together different corridor role-players at one location, proofed successful, given the drastic decrease in migrant smuggling and human trafficking. In the SADC, joint law enforcement inspections are the exception, rather than the rule. Most law enforcement inspections are still conducted in silo by several law enforcement agencies at different locations along regional road transport corridors.

This reform proposes the establishment of joint law enforcement inspections in the SADC, preferably at fixed delay points (e.g. formal weighbridge stops) and staggered at regional intervals to minimise disruption and unnecessary stops for operators.

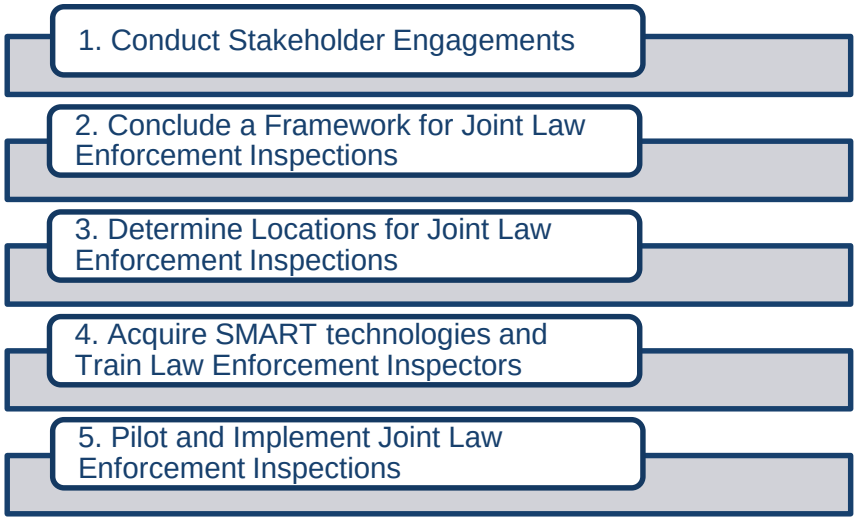
Compliant operators who are accredited by regulatory authorities (MCBRTA / OCAS) should be rewarded for good conduct / behaviour and be subjected to less intrusive inspections. A major benefit of joint law enforcement inspections is that is provides a platform for the exchange of information amongst law enforcement agencies if law enforcement officers use smart technology (e.g. mobile devices with scanning capabilities) that allow the electronic capturing and sharing of relevant data in real time.

Increased law enforcement visibility along strategic road transport corridors may play a role in reducing incidents of violence and xenophobic attacks on foreign drivers of cross-border vehicles. Care should be given to increase law enforcement visibility near crime-related “hot spots” (e.g. N3 corridor in South Africa) to protect cross-border drivers.

- **Steps associated with Implementing the Reform**

Figure 20 depicts key actions associated with implemented single stop, joint law enforcement inspections along strategic regional road transport corridors.

Figure 20: Implement Single Stop / 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 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 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. Thereafter, MS can purchase technology (e.g. mobile hand-held 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 e-permit system that is currently being developed and which will be implemented during 2021. 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 execution.

Steps 5: 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.

- **Responsibility**

Several parties are jointly responsible for the implementation of single stop / joint law enforcement inspections, including:

- Ministry of Transport in SADC Member States;
- Road Transport Regulators;
- Law Enforcement authorities in MS;
- Cross-border road transport operators.

- **Envisaged Impact of Reform**

The benefits associated with single-stop law enforcement inspections include:

- Reduction in delays at transit times;
- Reduction in duplicated law enforcement processes along regional road transport corridors;
- Improved sharing of real-time data;
- Reduction in the cost of doing business.

6.2.2.3 Transform Transport Corridors into Economic Corridors / SMART Corridors

- **Description of Reform**

The GMS adopted an economic corridor approach to stimulate economic growth and development in the sub-region. Several transport programmes have been launched to build inter-modal transport linkages and to improve physical connectivity between MS through the development of 3 priority road transport corridors. Success is noted in the removal of most missing road transport links along all priority corridors and a significant growth in cross-border trade.

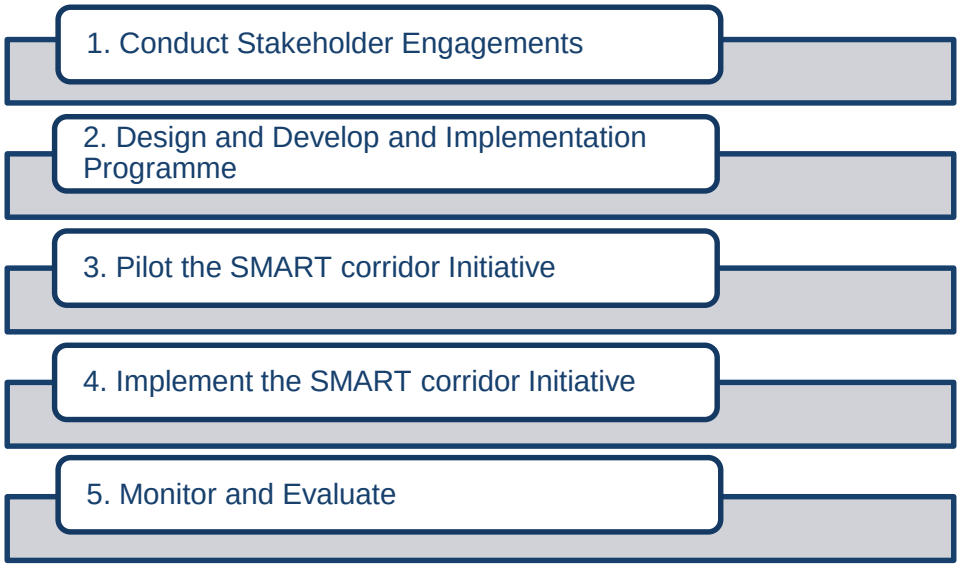
A similar reform, titled the SMART corridor initiative has been adopted and is currently unfolding in Africa. This continental initiative proposes that all transport corridors in Africa be converted into SMART corridors in a phased manner over time. SMART corridors entail the use and application of Intelligent 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. 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.

- **Steps associated with Implementing the Reform**

The actions (steps) associated with the implementation of SMART corridors are presented in Figure 21.

Figure 21: Development of SMART Corridors



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.

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.

Steps 4 and 5: Implement, Monitor and Evaluate

Steps 4 and 5 involves actual implementation of the SMART corridor initiative which will be accompanied by continuous monitoring and evaluation. This stage has not yet commenced.

- **Responsibility**

The successful implementation of this strategic continental initiatives depends on support and collaboration from various public and private sector role-players, including:

- Ministry of Transport in African countries;
- Road Transport Regulators;
- Corridor Management Institutions;
- Operator Associations;
- Cross-border road transport operators.

- **Envisaged Impact of Reform**

Numerous benefits are associated with the establishment of SMART corridors, including:

- Improved operator compliance, safety and security;
- Improved corridor performance;
- Improved safety and security along transport corridors;
- Time and cost savings for cross-border road transport operators;
- Increases in intra-Africa trade;
- Enhanced economic growth and development.

6.2.2.4 Establish Regional Trade and Transport Working Groups

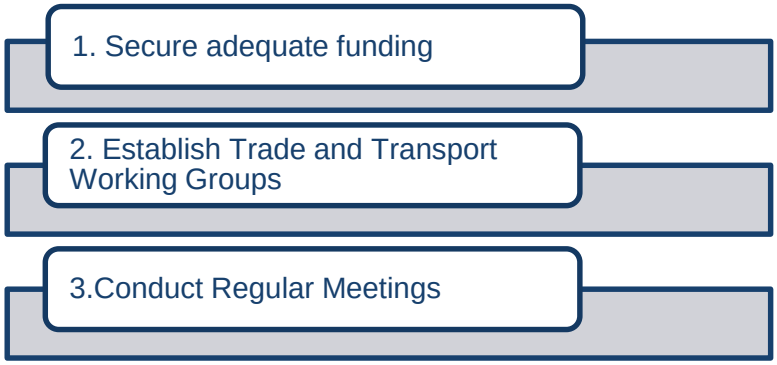
- **Description of Reform**

Functional trade and transport working groups in the MERCOSUR, which bring together role-players from the trade and transport spheres, provide a platform for discussion and dialogue. These bodies also voice their support for the implementation of key regional trade and transport programmes and play a key role in obtaining support for regional initiatives. The SADC has built a reputation for delivering plans, but not implementing them. Many regional projects do not move beyond the planning / conceptual phases. Against this background, the establishment of regional trade and transport working programmes is proposed to expedite the timeous delivery of strategic trade and transport programmes in the region.

- **Steps associated with Implementing the Reform**

Figure 22 depicts the steps associated with the establishment of regional trade and transport working groups.

Figure 22: Establishment of Regional Trade and Transport Working Groups



Source: Figure created for study

Step 1: Secure Adequate Funding

Steps 1 involves the mobilisation of adequate funds to enable the establishment of trade and transport working groups that represent both public and private sector interests. Working group members should be carefully selected to ensure working groups comprise of the right mix of skills, representation, experience, and technical know-how to correctly assess the status quo and to propose viable solutions for change to decision-makers when the need arises.

Steps 2 and 3: Establish Trade and Transport Working Groups and Conduct Meetings

Once trade and transport working groups have been established, they can render support for the execution of regional trade and transport programmes and advise regional decision-makers (politicians) of challenges that deter project execution. Working group meetings can coincide with regional trade and transport engagements (e.g. meetings of the CBRT-RF and SADC Secretariat) during which working groups should be afforded the opportunity to update regional decision-makers on progress made.

- **Responsibility**

The successful functioning of trade and transport working groups depend on the cooperation of several public and private sector role-players, which include:

- Public sector representatives from the Ministries of Trade and Transport;
- Representatives of trade and transport associations;
- Corridor Management Institutions;
- Civil Society;
- Academia.

- **Envisaged Impact of Reform**

The following benefits are associated with the establishment of regional trade and transport working groups:

- Improved skills transfer;
- Improved delivery on strategic regional programmes;
- Enhanced intra-regional trade;
- A growth in cross-border trade;
- Increased economic opportunities;
- Regional growth and development.

6.2.2.5 Establish a Regional Law Enforcement Training Academy

- **Description of Reform**

The development of customised training programmes for law enforcement officials in the Greater-Mekong sub-region has greatly improved the level of professionalism in the law enforcement industry. Law enforcement officers in the SADC generally lack essential skills (e.g. how to use modern technology during law enforcement checkpoints). It is therefore believed that the SADC can greatly benefit from implementing a similar training programme for law enforcement officials.

- **Steps associated with Implementing the Reform**

Figure 23 depicts the steps associated with the establishment of a regional law enforcement training academy.

Figure 23: Establish a Regional Law Enforcement Training Academy

Source: Figure created for study

Step 1: Conduct Stakeholder Consultations

The initial step involves conducting engagements with law enforcement role-players in the region to lobby support for the development of customised law enforcement training programmes, aimed to improve the level of professionalism in the law enforcement environment.

Step 2: Design and Develop Customised Training Programmes

The step involves developing tailor-made law enforcement programmes that incorporate emerging continental and regional developments (e.g. SMART corridor initiative, creation of integrated corridor platforms). The purpose is to upskill law enforcement officers to improve the quality of law enforcement inspections.

An on-going initiative in South Africa is witnessed in the development of training programmes for cross-border law enforcement officers. The C-BRTA, who champions this initiative has developed several programmes in collaboration with industry players and is currently busy to register the law enforcement training programmes with national authorities (e.g. South African Qualifications Authority). It is advised that training materials be presented to regional law enforcement authorities for approval and once they support this initiative, be customised to individual (MS) needs.

Steps 3 & 4: Establish Regional Law Enforcement Academy and Conduct Training

Once training modules have been developed and certified, the next action is to establish a regional law enforcement academy. Given its expertise in this area, it is strongly proposed that the C-BRTA act as the implementation agent. Based on the outcome of stakeholder engagements, the training academy can be established in South Africa, at the offices of the C-BRTA. Alternatively, based on the needs of regional law enforcement agencies,

representatives from the C-BRTA can offer training programmes at the premises of law enforcement agencies in the region.

- **Responsibility**

All role-players in the law enforcement environment are collectively responsible for implementing a regional law enforcement training academy.

- **Envisaged Impact of Reform**

The benefits associated with the establishment of a regional law enforcement academy include, but are not limited to:

- Improved skills transfer to law enforcement officials;
- Time savings during law enforcement checkpoints;
- Collection and distribution of real-time data;
- Shorter journey times;
- Savings in transport costs for cross-border operators;
- Improved performance of corridor value chain.

6.3 Funding remains a Pre-Requisite to Success

The successful execution of all the above reforms depends on the ability of MS to secure sufficient funds to prepare projects for bankability and execution. In this area, limited success is witnessed. SADC countries struggle to raise public funds for their down national projects, let alone financing regional infrastructure projects. African governments remain the biggest financier of infrastructure projects. This situation is unattainable and calls for urgent intervention.

Against this background the importance of ***funding frameworks*** cannot be over-emphasises. Each MS should develop its own customised funding framework that that set out the rules and conditions to safeguard domestic and international investors. Given the scarcity of public sector funds, SADC MS have no choice but to explore other ***innovative solutions*** to expedite the timeous delivery of regional projects.

Public-Private Partnerships (PPPs) have emerged as a popular mechanism 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, SADC decision-makers should remember that the private sector will only come on board if a conducive environment exists that give investors the peace of mind their investment will deliver a satisfactory return. This is thus important that SADC governments understand the risks from the private sector perspective, allocate those risks and provide appropriate risk-adjusted returns.

Lastly, considering the regional character of all reforms, project execution also depends on cooperation by national and regional role-players. The reforms proposed in this Report should be presented to national and regional stakeholders for approval. Cross-border road transport regulators, including the C-BRTA should lobby support and play an advocacy role for the implementation of projects / programmes that reside in other line ministries, notably trade and customs. 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 to ensure there is a common purpose and convergence on the approach that will be taken to implement agreed reforms.

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