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**Links on Transport, Trade, and Climate
Change – The Zimbabwean Scenario on
Adoption of Digitalisation**

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LINKS ON TRANSPORT, TRADE, AND CLIMATE CHANGE – THE ZIMBABWEAN SCENARIO ON ADOPTION OF DIGITALISATION

1. Introduction

Zimbabwe is a landlocked nation whose primary trading ports are in South Africa's Port of Durban and Mozambique's Maputo and Beira. For its imports and exports, Zimbabwe mainly relies on road transportation and rail through border stations including Beitbridge, Sango, Chirundu, and Forbes. Additionally, Zimbabwe built a dry port facility in Walvis Bay in Namibia through agreements with the government of Namibia, providing access to the sea via South-West Africa. Due to its strategic location in Southern Africa, Zimbabwe's transportation network serves not just the country, but also serves as a hub for traffic heading to Malawi, Zambia, and the Democratic Republic of the Congo (Eastern DRC). Mineral exports and mining equipment imports through South Africa into Zambia and the Eastern DRC make up the bulk of the flow.

Transport, Climate Change and Trade Facilitation Nexus

Transport, trade, and climate change are interconnected in various ways and each one affects the other - creating challenges that need interventions.

Transport and Trade Facilitation:

Trade and economic development are greatly facilitated by transportation. The movement of products and services both inside and outside of borders depends on effective, efficient and dependable transportation infrastructure. The movement of commodities to and from different economic centres is supported in Zimbabwe by the transportation industry, which includes air, rail, and road transportation. A more competitive environment and economic growth might result from improved transportation and logistics networks. Being a landlocked country, transportation in

Zimbabwe continues to be a crucial catalyst to economic development and trade facilitation.

Climate Change and Transport

The transport industry is affected by climate change, notably in terms of infrastructure vulnerability and elevated risks. Extreme weather conditions, such as flooding, droughts, and excessive precipitation, can harm transportation infrastructure and interfere with supply chains and trade. In the last ten years, Zimbabwe has seen an upsurge in unfavourable meteorological conditions like droughts, cyclones, and severe flooding. These have significantly hampered the development and modernization of infrastructure, necessitating investment for the growth of the transportation industry.

The transportation industry contributes significantly to the overall CO₂ emissions connected to energy (6.7 GtCO₂), producing 7.0 GtCO₂eq of direct GHG emissions (including non-CO₂ gases), Sims, et al., (2014). Growth in GHG emissions has continued despite the increase in more efficient vehicles (road, rail, water craft, and aircraft) and policies being adopted globally. Developing countries have challenges transforming their transport sectors to make them greener due to a lack of adequate financing mechanisms, limited technical capacity and lack the required technologies. International collaboration is therefore essential to overcome these challenges.

Climate Change and Trade Facilitation

Two crucial concerns that Zimbabwe, like many other nations, is currently dealing with are climate change and trade facilitation. Southern Africa, Zimbabwe in particular, is susceptible to the effects of climate change. In recent years, the country has seen protracted droughts, unpredictable rainfall patterns, and extremely high temperatures; disasters that have destroyed existing and new infrastructure and at the same time affecting progress on infrastructure development. An important part of Zimbabwe's economy, agricultural productivity, has been negatively impacted by these developments.

In order to prioritize and embrace sustainable practices that reduce greenhouse gas emissions and foster resilience in important industries including agriculture, mining,

and industry, the government devised a policy framework and initiatives. This includes investing in renewable energy sources, promoting efficient water management systems, and adopting climate-smart agricultural techniques. However, these efforts remain futile without international support and lobbying on technical and financial requirements to meet set targets. Commitments made at the various Climate Conferences of Parties (COP) attest to this.

When formulating plans and regulations, it is crucial for decision-makers and stakeholders to take into account how transportation, commerce, and climate change are interconnected. This includes developing climate-resilient trade sectors, promoting low-carbon transportation options, and incorporating climate change considerations into the planning stages of commerce and transportation.

Consideration of UNCTAD Policy Brief 107

In January 2023, UNCTAD produced the UNCTAD Policy Brief 107, which indicates that the European Union announced the adoption of the Carbon Border Adjustment Mechanism (CBAM). This decision aims at creating a platform where Member States of the EU promote the trade of products with a certain certification in line with the commitments made on climate change. As a measure to curb the increased in GHG emissions, this is a positive move, however it remains with its own constraints, particularly less industrialised countries such as Zimbabwe and the rest of Sub-Saharan Africa.

It is understood that with the challenges that emanate from the GHG emissions, various countries develop policies, regulations, measures and systems to try and address and at most significantly reduce the use GHG emissions. At the same time these measures create a causal effect which at the end of the day may have negative impacts on trade facilitation.

However, at the same time, it is likely to have adverse consequences on countries that are not systemically important in international trade, but have the least institutional and economic capacity to comply with evolving climate regulation and trade policy changes of export markets.

Zimbabwe is currently working on specific regulatory framework to support and regulate the just finalised National Carbon Credit Framework. The aim is to equally tap into the carbon markets and be able to trade together with the rest of the world. However considering the development of the CBAM by EU and its announcement to adopt, there is need for support towards LDCs as its implementation disadvantage Africa and all LDCs in general in product and market value, trade and competitiveness. Zimbabwe welcomes UNCTAD's support to LDCs, UNCTAD, (2023) and echoes the call to reconsider the adoption of these mechanisms without due consideration of the implications on trade and trade facilitation as CBAM can potentially breach the non-discrimination rule as agreed in the Trade Facilitation Agreement, KPMG, (2023).

Policy and Legal Framework on Digitalisation

The government has created a comprehensive policy and legal framework that strives to streamline procedures, minimize bureaucracy, and increase effectiveness in the transportation and trade sectors in order to achieve effective digitalization in transport and trade facilitation.

For the government and other stakeholders, digitalizing transportation and trade facilitation in Zimbabwe is an important undertaking. The Zimbabwean government embraced e-Government as a mechanism to computerize and modernize government processes and the delivery of services to the general population in order to successfully address this. However, it hasn't yet been fully embraced in its application.

The objectives and goals for building the necessary policy framework may include raising the effectiveness of the trade and transportation systems, enhancing their security, lowering transaction costs, and boosting the nation's competitiveness on the world market. After the objectives and goals were set, Government created policies for the ICT sector, including the creation of cybersecurity-related legal instruments.

Overall, the building of a policy and legal framework for digitalizing transport and trade facilitation in Zimbabwe is critical if the country is to capitalize on the prospects presented by this technology. It is critical that the government take the appropriate steps to guarantee that the country's policy and legal framework are built in such a

way that it can use the power of digital technology to improve transportation and commerce facilitation.

The implementation of an electronic single window system, under the UNCTAD sponsored Automated System of Customs Data (ASYCUDA), at ports of entry in Zimbabwe is a critical component of this architecture. This system enables the sharing of information between several government agencies involved in trade facilitation, such as customs, immigration, and port authorities, in real time. By digitizing these operations, importers and exporters can eliminate duplicate paperwork and shorten processing times.

Furthermore, the Zimbabwean government is in the process of enacting regulations to boost e-commerce and digital payments in the transportation sector such as the Electronic Transactions Bill, which is meant to establish a legal framework for conducting business electronically, ensuring digital transaction security and authenticity. This allows traders to conduct online transactions with confidence, reducing their dependency on cash-based transactions. Zimbabwe put measures in place to stimulate investment in digital infrastructure with the development of the National ICT Policy, which encourages the construction of a comprehensive telecommunications network across the country, ensuring reliable access for international trade firms.

Overall, Zimbabwe has positioned itself as a competitive actor in the area, with the potential for economic growth, by implementing a comprehensive policy and regulatory framework on digitalizing transportation and trade facilitation.

Digitalising Transport and Trade Facilitation in Zimbabwe

The world has witnessed a rapid digital transition across numerous sectors in recent years, and Zimbabwe is no exception. The country's digitalization of transportation and trade facilitation has become critical in order to improve efficiency, cut costs, and boost economic growth. As technology continues to grow at an unprecedented rate, governments must adapt and capitalize on its potential benefits. In this context,

digitization provides enormous prospects for optimizing trade processes, lowering costs, increasing efficiency, and increasing transparency.

Customs processes are one important area where digitization has had a substantial impact. Historically, customs clearance procedures in Zimbabwe were time-consuming and inefficient, resulting in delays and inefficiencies. These processes, however, have been simplified and accelerated with the development of computerized technologies such as the Automated System for Customs Data (ASYCUDA). ASYCUDA enables traders to electronically submit their papers, minimizing paperwork and allowing for shorter processing times.

Furthermore, the ASYCUDA system allows real-time import and export data. Customs officials have real-time access to reliable data on products being imported or exported. This aids in monitoring trade flows, spotting potential dangers or disparities, and guaranteeing regulatory compliance.

The ASYCUDA system has enhanced revenue collection for Zimbabwe's government in addition to increasing efficiency and transparency. The technology ensures that all tariffs and taxes payable are paid on time by automating operations and limiting potential for fraud or under-declaration of products.

Nonetheless, despite its obvious benefits, properly adopting the ASYCUDA system in Zimbabwe has proved difficult. Its usefulness in remote places is hampered by limited internet availability in some areas. Furthermore, insufficient training for customs officials may limit their capacity to properly utilize the system's capabilities.

Digitalisation has resulted in digital platforms that have transformed payment processes in commercial transactions. The use of mobile money services such as EcoCash and OneMoney have made it possible for buyers and sellers to make secure and convenient payments. Not only has this reduced dependency on hard cash, but it has also eliminated the necessity for physical presence during transactions.

Technology has enhanced logistics and delivery services in Zimbabwe. Businesses may now employ GPS technology to track their goods in real time, ensuring on-time

delivery and reducing losses due to theft or mishandling. This has been especially beneficial for e-commerce businesses that rely heavily on efficient delivery systems.

Digitalisation has facilitated e-commerce growth by providing a platform for businesses to engage with customers online. This has opened up new opportunities for small-scale traders who can now reach a wider market beyond their local communities. The convenience of online transactions has also contributed to increased consumer satisfaction.

Transparency and accountability in trade facilitation processes have improved as a result of digitalization. Corruption concerns have been reduced by digitizing customs operations and documentation, assuring fair trade practices. Furthermore, automation of operations such as customs clearance has eliminated bureaucratic delays, enhancing efficiency even further. Modernization of infrastructure and systems at border checkpoints such as Beitbridge (border with South Africa) has recently resulted in major delays and increased turnaround times for trucks and transport operators from weeks to three hours.

The advantages of digitisation in trade facilitation can be substantial, particularly for small and medium-sized firms (SMEs) that may lack the capacity to handle complex trade legislation and procedures. Digitalisation can help SMEs reach new markets and engage more fully in global trade by lowering trade barriers and streamlining operations.

Zimbabwe is creating systems that will aid in data collecting and real-time data analysis on climate change and climate change-related concerns through digitalisation and intelligent systems. This data can be used to identify places with excessive emissions or where energy efficiency can be improved. We can make informed decisions on how to lower the national carbon footprint by using this data.

Adoption of the UNCTAD Reform Tracker

In 2020, UNCTAD launched the online Reform Tracker, a tool developed for use by the National Trade Facilitation Committees within Member States. The aim of the tool is to assist Member States in monitoring and measuring level of preparedness,

commitment and extent of adoption of the Trade Facilitation Agreement under the World Trade Organisation.

The UNCTAD Reform Tracker has been used to track the Zimbabwean government's progress on its commitments to economic and social reform, with institutions such as the National Trade Facilitation Committee, members to the committee such as the Zimbabwe Revenue Authority (ZIMRA), Ministry of Industry and Commerce, Ministry of Foreign Affairs and International Trade and Ministry of Transport and Infrastructural Development, among others, continuously updating the tool in response to country developments. The tool has assisted in identifying areas that require development as well as places where progress is being made. As a result, the government has been able to prioritize reform activities and ensure that improvements are completed on schedule, resulting in reduction in delays and increased turnaround times for trucks and transport providers from weeks to three hours; as a major achievement under the Trade Facilitation Agreement.

Conclusion

Digitalising transport and trade facilitation in Zimbabwe holds immense potential for economic growth and development. By leveraging technology solutions such as electronic ticketing systems, electronic data interchange platforms, and mobile payment systems; efficiency can be enhanced while reducing costs associated with traditional methods. However, addressing infrastructure limitations and cybersecurity concerns are essential steps towards realizing these benefits fully.

Intelligent systems have the potential to revolutionize how Zimbabwe addresses climate change, transport, and trade facilitation. With the increasing threat of global warming and its impact on our environment, it is essential that new technologies are explored to mitigate its effects.

It is important to acknowledge that challenges exist when it comes to implementing digitalisation initiatives effectively. Limited access to reliable internet connectivity remains a significant barrier for many people, more so, in rural areas in Zimbabwe.

Therefore, efforts should be made to bridge this digital divide by investing in infrastructure development.

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