



REPUBLIC OF ZAMBIA

In reply please quote

MIHUD/72/9/1.....

MINISTRY OF INFRASTRUCTURE, HOUSING AND URBAN DEVELOPMENT

OFFICE OF THE PERMANENT SECRETARY
P.O. BOX 50235
LUSAKA

3rd December, 2021

The Executive Director
Citizen for a Better Environment Consortium
LUSAKA

EXPRESSION OF INTEREST TO CONSTRUCT A PUBLIC –PRIVATE PARTNERSHIP ONE STOP BORDER POST AND AUXILIARY SUPPORT INFRASTRUCTURE AT SAKANIA BORDER

Reference is made to the captioned subject matter above.

2. I write to acknowledge receipt of your letter of intent to construct a one stop border post and auxiliary support infrastructure using a Public-Private Partnership arrangement at Sakania Border in Ndola District of Copperbelt.
3. Your letter of intent was forwarded to the Ministry of Finance and National Planning, Public-Private Partnership Unit for review and further guidance.
4. I wish to inform you that the Ministry of Finance and National Planning has guided that the Ministry of Commerce, Trade and Industry (MTCI) is awaiting guidance from the Attorney General on the issue of the "**Proximity Clause**" in the Kasumbalesa Border Concession Agreement before inviting proposals for the development of Sakania Border.
5. You are, therefore, advised to wait for the advertisement calling for competing proposals to be issued by MTCI once the matter is cleared by the Attorney General.
6. Please be advised accordingly.


Eng. Danny Mfunne
Permanent Secretary

MINISTRY OF HOUSING, HOUSING AND URBAN DEVELOPMENT

c.c. Hon. Eng. Charles L. Milupi, MP
Minister of Infrastructure, Housing and Urban Development

VERY URGENT

12th November 2021

The Permanent Secretary- BEA
Ministry of Finance and National Planning
LUSAKA

ATT: Director
Public-Private Partnership Unit

RE: EXPRESSION OF INTEREST TO CONSTRUCT A PUBLIC PRIVATE PARTNERSHIP ONE-STOP BORDER POST AND AUXILIARY SUPPORT INFRASTRUCTURE AT SAKANIA BORDER-NDOLA-COPPERBELT PROVINCE

Reference is made to a letter dated 26th October, 2021, from Citizens for a Better Environment on the captioned subject.

2. Forwarded is a copy of the said letter for your ease of reference. Also enclosed is the Concept Note on the proposed Construction of a Public Private Partnership One-Stop Border Post and Auxiliary Support Infrastructure at Sakania Border.
3. Submitted for your consideration and further guidance.



Dr. Richard Banda
Acting Permanent Secretary
MINISTRY OF INFRASTRUCTURE, HOUSING AND URBAN DEVELOPMENT

CC: Hon. Eng. Charles Milupi, MP,
Minister of Infrastructure, Housing and Urban Development.

PPP/54/17/1

23rd November, 2021

Dr. Richard Banda
Acting Permanent Secretary
Ministry of Infrastructure, Housing and Urban Development
LUSAKA

RE: EXPRESSION OF INTEREST TO CONSTRUCT A PUBLIC PRIVATE PARTNERSHIP ONE – STOP BORDER POST AND AUXILIARY SUPPORT INFRASTRUCTURE AT SAKANIA BORDER

I refer to your letter referenced MIHUD/72/9/1 dated 12th November, 2021 regarding the submission of a concept note by Citizen for a Better Environment (CBE) consortium for construction of an inland port services facility and auxiliary structures for basis for management of customs, warehousing and logistics services at Sakania Border Post through a Public Private Partnership (PPP) initiative.

We would like to inform you that on 23rd April, 2020, Jia You International Logistics Co. Ltd submitted an unsolicited proposal for the construction of Sakania Dry Port and access road and Ministry of Commerce, Trade and Industry (MCTI) conducted a preliminary evaluation. Therefore, we await MCTI meeting with Attorney General to resolve the issue of the "Proximity Clause" 5.3 of the Kasumbalesa Agreement and how this might affect the development of Sakania Border or indeed the other borders with the Democratic Republic of Congo.

In this regard, the Ministry is of the view that Citizen for a better environment (CBE) consortium should wait for advertisement of calling for competing proposals to be issued by MCTI.

Submitted for your consideration,



Mukuli Chikuba
Permanent Secretary - Budget and Economic Affairs
MINISTRY OF FINANCE OF NATIONAL PLANNING

Cc. The Minister
Ministry Infrastructure, Housing and Urban Development ✓

Office Copy

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KITWE, ZAMBIA

CITIZENS FOR A BETTER ENVIRONMENT

26th October 2021

The Minister
Ministry of Infrastructure, Housing and Urban Development
Stand No. 28, United Nations Avenue
P. O. Box 50235
RIDGWAY
LUSAKA

Attention: Honorable Charles Milupi, MP

Dear Sir,



RE: EXPRESSION OF INTEREST TO CONSTRUCT A PUBLIC PRIVATE PARTNERSHIP ONE-STOP BORDER POST AND AUXILLIARY SUPPORT INFRASTRUCTURE AT SAKANIA BORDER POST- NDOLA- COPPERBELT PROVINCE

Reference is made to the above-captioned matter.

As I indicated when we met at State House on 24th October, 2021, in line with the New Dawn Government policy on infrastructure development, that is anchored on the notion of Public Private Partnership (PPP), we would like to express our interest to construct a One-Stop Border Post (OSBP) at Sakania Border Post, in Ndola District, in Copperbelt Province on Build Own Operate Transfer (BOOT) basis.

The proposed OSBP will have auxiliary support infrastructure constructed, including upgrading the 29km road from Ndola to Sakania Border Post to dual-lane asphalt paved status, with a toll plaza. Other auxiliary infrastructure includes construction of warehouses, offices, rail siding, parking facility. In addition, various equipment, including scanners for customs inspection operations, cameras, computers, and other IT equipment will be procured. The proposed project is estimated to cost US\$71.83 million. Government is not expected to contribute towards this cost but provide a 25-year concession in which to recover the costs and return on investment.

We propose to partner with Zambia Revenue Authority (ZRA), Road Development Agency (RDA), and Zambia Railways (ZR) Limited, in the management of the project on a 25 years' concession basis. Thereafter, the infrastructure could be handed over to Government. Find attached the Concept Note that provides a synopsis of the proposed project and its financing plan.

We look forward to hearing from you soon.

Yours faithfully,


PETER SINKAMBA
EXECUTIVE DIRECTOR



CONCEPT NOTE

**THE PROPOSED CONSTRUCTION OF AN INLAND PORT SERVICES
FACILITY AND AUXILIARY INFRASTRUCTURE ON PRIVATE
PUBLIC PARTNERSHIP (PPP) BASIS FOR MANAGEMENT OF
CUSTOMS, WAREHOUSING AND LOGISTICS SERVICES**

AT

SAKANIA BORDER POST

IN

NDOLA DISTRICT

IN THE

COPPERBELT PROVINCE

IN THE

REPUBLIC OF ZAMBIA

BY

CITIZENS FOR A BETTER ENVIRONMENT (CBE) CONSORTIUM

OCTOBER, 2021

1.1. Objectives and Rationale

Zambia is a landlocked and linked country with no coastlines but with eight neighboring Countries and physically connected trading partners. It shares the longest boarder with DRC, particularly its' Katanga Province which, like Zambia, is also land locked and linked plus rich in mineral resources. Katanga is the main economic hub of the DRC, and relies on Zambian (and regional countries') infrastructure to access sea ports. DRC and Zambia are the most linked economies in the region and amongst each other's principal Trading Partners.

Zambia and DRC host one of the busiest inland boarder ports in Southern Africa called Kasumbalesa which is gradually operating beyond capacity. The DRC has started developing road Infrastructure to open up a second major inland boarder port at Sakania Border Post, in the south-east direction, about 185km from Kasumbalesa. The DRC Government seeks to develop this secondary Inland Port to connect Lubumbashi, Sakania Town on the Congolese side and Ndola on the Zambian side. This proposal seeks to mobilize resources to establish complimentary and connecting infrastructure on the Zambian Side on a Private Public Partnership (PPP) Basis.



The proposed Zambian side of the Inland Port Project will be located at Sakania Border Post, on the north-west side of the City of Ndola, District of Ndola in the Republic of Zambia. Ndola is the second largest city in Zambia and one of the most populated towns in the Zambia. The estimated population of Ndola is 555,560. Eighty per cent of the population is concentrated in south-central part of the City of Ndola, which is the center of social services, including education and health care, transport infrastructure, including railways and roads, and economic activities.

Until the recent construction of Simon Mwansa Kapwepwe International Airport, and Ndola Technical Girls Secondary School, north-west part of the Ndola City largely remained underdeveloped. The main source of livelihood for the people living in the part is subsistence farming of maize, tomato and rearing chickens. Women and youth sale their farm-produce by the road-side, where there are no shelters to protect them from the sun and rain.

Whilst most roads in the City are paved and frequently resurfaced, the only gateway road to Sakania Border Post, which links the residents to the Greater City of Ndola, Mufulira and Democratic Republic

of Congo (DRC), is in a state of serious disrepair. To realize a well-balanced society and economy, it is imperative to develop a sustainable City-wide road transport network, including the Ndola-Sakania Border-Mufulira road. In terms of strategic relevance with expansion to Fragility, Conflict, and Violence (FCV) countries, as well as cross border benefits in terms of trade and investment flows, Ndola is bounded by the DRC to the north-east. Therefore, access to DRC is essential for trade and distribution of essential commodities to Katanga Province and war-torn Eastern Congo.

However, the nearest gateway to DRC is through the access at Sakania Border Post, which lacks modern road network and border facilities. Yet, there is potential for Sakania Border Post to be a regional gateway for goods arriving by road and rail destined to DRC from the entire globe as well as Southern African Development Community (SADC) countries, which include South Africa, Tanzania, Zimbabwe, Botswana, Mozambique, Namibia, and Malawi.

The proposed project is intended to change the above narrative. It is an integrated project intended to, on one hand, modernize the border facility at Sakania Border Post for enhanced revenue collection by Government and other economic players, and on the other hand remodel to a dual-lane, the gateway road from Ndola to Sakania Border Post, covering a 29km section stretching almost half-way the distance between Ndola and Mufulira.

It is also planned to integrate modern warehousing facilities at the border, as well as improve quality of life for women youths living at Sakania Border Post, and in that manner, expected to greatly contribute to smooth trade of local community as well as neighbouring SADC member countries.

Project Summary

Primary Infrastructure:	
• Sakania to Ndola 29km dual-lane paved road	US\$ 20.3 million
• Toll Plazas Five (1) Plazas	US\$1.5 million
• Truck Parking Bays (1,500 trucks capacity)	US\$6.5 million
• Government Cluster Offices	US\$11.8 million
Secondary Infrastructure	
• Other Buildings (warehousing, passenger etc.)	US\$6.7 million
• Equipment including Scanners, ITC	US\$18.5 million
Project Cost at Financial Close + Contingency	US \$ 71.83 Million (\$44.11m for Primary Infra.)
Funding:	
Government Grant	0%
Debt	80%
Equity	20%
Concession Period	25 Years
Toll Tariffs to increase with inflation	Assumed at 6% per annum
Traffic Forecast and Revenue	To be based on comprehensive traffic analysis and feasibility study to be undertaken after our appointment.
Toll Sharing Revenue	Government to obtain a percentage of all net revenue if traffic forecasted achieved.
Government Support (as per financial model) to be confirmed during negotiations.	<ul style="list-style-type: none"> • No initial financial support required. • Increases on annual toll tariffs to be guaranteed. • Government to accept forex risk. • Tax Incentives

1.2. Objectives and Rationale

The general objective of the proposed project to build an Inland Boarder Port, and other auxiliary support infrastructure on the Zambian side of Sakania Border Post, in Ndola District, through Private Public Partnership (PPP). The proposed port will be a juxtaposed One Stop Border Post (OSBP) model, whereby border facilities are operated in the country of entry in each direction.

The rationale for the proposed project is to promote efficient customs clearance, enhanced revenue collection and generation, and thereby contribute to local, national and regional socio-economic growth via increased trade in SADC countries.

1.3. Project Financing and Scope

The Zambian Government borrowing capacity is currently constrained. Government will increasingly need to rely on the private sector to mobilize funding for critical infrastructure projects. Therefore, the Sakania Inland Boarder Post, and auxiliary support infrastructure, will need to be Private Sector-led with the finance risk being assumed by the private sector on behalf of Government. After recovering and making a return on its investment, the Private sector will then handover the assets to the Zambian Government.

Financing for the proposed project will be through 20 percent equity and 80 percent loan. The loan component of financing will be sought from either the Chinese investors in Zambia or the Regional Infrastructure Finance Facility (RIFF) of the World Bank to the Common Market for Eastern and Southern Africa (COMESA) and the Trade and Development Bank (TDB).

The total amount sought for the proposed project is **US\$.71.83 million**.

As indicated above, the proposed project is a PPP project whereby Citizens for a Better Environment (CBE) Limited plans to put together a consortium of Private and Institutional Investors to partner with the Republic of Zambia, to provide infrastructure for PRIMARILY the Zambia Immigration Department, Zambia Revenue Authority (ZRA), and the Road Development Agency (RDA), and Zambia Railways Limited (ZRL), in the form of an In Land Boarder Port facilities, and auxiliary support infrastructure on the Zambian side of Sakania Border Post on a Build Own Operate Transfer (BOOT) basis.

The proposed concession period for OSBP is 25 years. It is anticipated that by time the proposed concession period lapses, Government may have set up an Inland Port Authority (IPA) to manage all OSBPs countrywide. If that happened, then the transfer of operations of the road and toll plaza to RDA; the rail siding to ZR; and other infrastructure at the OSBP to IPA.

In addition to the above, the project is aimed at construction of modern warehouse facilities with ambient, cold chain and value-added capabilities. These facilities are intended for sustainable management agricultural goods, both fresh and processed for export. The warehouses will also have modern pallet and IT systems as well as sustainable bonded solutions. The warehouse facilities will be linked to a parking lot capable of holding up to 1,500 articulated trucks per time.

Further, the project is aimed at constructing a dual-lane 29km permeable asphalt PPP Tolloed Road linking Sakania Border and Ndola-Kitwe Dual Carriage Way. Toll gate facilities are planned to be constructed along this road stretch for revenue collection.

Furthermore, it is planned to construct a rail siding for delivery of bulk export goods, such as maize, arriving by rail to the warehouses.

Additionally, a social management plan is planned to be developed, through which support will be rendered to women and youth in the area, so as to enable them to produce export-quality cash crops, by and large to the marketed through modern warehouse facilities to be constructed.

1.4. Borrower/Executing Agency

The borrower will be the CBE Consortium on PPP Project Finance Basis. The Key clients and partners will be Government Cluster made up of ZRA, Zambia Immigration Department, Ministry of Health (MoH), Ministry of Agriculture and Livestock, Zambia Environmental Management Agency (ZEMA), Zambia Bureau of Standard (ZABS), Zambia Medicines Regulatory Agency (ZAMRA), Drug Enforcement Commission (DEC), Anti-Corruption Commission (ACC), RDA, ZRL, Food Reserve Agency (FRA), Ndola City Council (NCC), and various private entities involved in transport, logistics, freight etc.

1.5. Proposed outline of Loan Agreement

Proposed Loan amount	US\$71.83 million (or \$44.11m for Primary Infra.)
Proposed Exchange of Notes/Loan Agreement	January, 2022/ March 2022
Proposed Terms and Conditions	Interest rate (TBA); Repayment period (grace period) 25 years (5 years); General untied
Proposed disbursement date	April 2022

1.6. Implementation Schedule

The construction schedule for the project is 12 months from April 2022 to April 2023.

1.7. Project Cost

The proposed project cost is **US\$71.83 million** broken down as follows:

Construction of the asphalt paved road (3.5m dual-lane with 1.5m shoulders, stabilized gravel base)	29km @US\$700,000/km	US\$ 20.3 million
Construction of the Government Cluster Buildings	various structures	US\$11.8 million
Construction of toll gate facility	various structures	US\$1.5 million
Construction of state-of-art warehousing facilities	15,000 square meters	US\$4.4 million
Construction of parking bay for trucks	1,500 trucks capacity	US\$6.5 million
Procurement of scanners customs	Two container scanners	US\$ 16 million
Procurement of cold chain facilities	various facilities	US\$2.3 million
Procurement of IT and WMS equipment	various equipment	US\$2.5 million
Contingency	@ 10%	US\$5.52 million

1.8. Project Organization

In implementing the project, Ministry of Infrastructure Development will appoint a project coordinator and assigned senior technocrats to coordinate speedy delivery of the project. Meanwhile, overall management, monitoring at construction and operational phases of the project will be undertaken by the CBE Consortium in cooperation with the RDA, ZRA, ZR, and Ndola City Council.

1.9. Proposed CBE Consortium Composition

CBE proposes to form a consortium of multi-national and multi-discipline companies, for successful delivery of the project. Should the Consortium be awarded the Project, CBE in conjunction with its strategic investors, will form a Special Purpose Vehicle (SPV) for the full purpose of managing the proposed project in which their equity is invested.

Below is the proposed project management structure of the Consortium.

1. Principal Agent & Project Managers	CBE
2. Financial Advisory	Africa Sustainable Investors Ltd
3. Main Contractor (EPC)	Chinese or other
4. Toll Operations and Maintenance	RDA
5. Strategic Financial Institution / Investors	TBA
6. Asset Manager (Estate Managers post-construction phase)	Bitrust Real Estate (Team Leader Mr. Holland Mulenga)

Proposed Professional and Technical Advisors

1. Cost Control and Management (Registered Construction Cost Consultants)	ACI Zambia Limited (Team Leader Mr. Gelsom Lungu)
2. Financial (Auditing & Accounting)	PricewaterhouseCoopers (PwC) Zambia
3. Structural Engineering (Highway/Railway/Buildings)	RDA/ZRL/Mr. Moses Chulu (Structural)
4. Design (Registered Architect)	Mr. Thuma Hamani
5. Environmental Engineers	Knight Piesold/CBE (Team Leader Prof. Kakoma Maseka)
6. Occupational Health & Safety	NCC
7. Legal	Suba, Tafeni & Associates (Ms. Inutu Suba and Mr. Clement Tafeni)
8. Insurance	Madison Insurance/Professional Insurance
9. Land Surveyors (Registered Land Surveyor)	Mr. Benjamin Temba Kamwande
10. Security	ZP, DEC, ACC, NCC, G4S Zambia

Environmental assessment and monitoring in the planning, construction and implementation phases of the project will be undertaken by CBE environmental experts, in conjunction with ZEMA, a government organ responsible for environmental administration, and conducts environmental monitoring on a nationwide scale. However, the RDA, in the cooperation with CBE and ZEMA experts, will perform its role in respect of environmental issues related to road from planning up to project completion of the construction activities.

The design, cost control, structural, civil and other experts to be engaged will have appropriate technical skills thus facilitating coordination and cooperation among all connected parties, and allowing costs to be well managed so as to be within the planned scope. Thus, apart from the delays in the schedule that

may be caused by bidding procedures, and disbursement of the funds, the project is likely to be efficiently implemented.

2. Relevance and Expected Results

2.1. Relevance of the proposed project

The growth of cargo and transportation going through Kasumbalesa is unsustainable and additional capacity in the form of another Inland Port is required. There is congestion and long delays at Kasumbalesa and this is negatively affecting revenue collection, growth in trade, Gross Domestic Product (GDP) and generally development in SADC / COMESA.

The project is relevant in many ways. By modernizing infrastructure, services and movements of goods on this gateway, this will in turn greatly increased revenue collection by Government agencies and Ndola City Council. It will also propel development of the sparsely populated areas north of Ndola, an essentially promote inclusive economic development of the Copperbelt.

Additionally, the measure will be a relevant means of facilitating trade linkages with newly constructed Simon Mwansa Kapwepwe International Airport and thereby revitalizing regional markets in Zambia and DRC, as well as neighboring SADC countries, through the modernized direct connections.

2.2. Project Benefits and Contribution to National Development Commitments

2.2.1. Job Creation

Approximately 800 jobs will be created construction phase. Approximately 300 permanent jobs will be created post-construction and implementation phases.

2.2.2. Emissions Reduction

The existing modern facility at Kasumbalesa Border Post is extremely overwhelmed. Usually, the queue of trucks waiting to be cleared stretches between 20km and 60km along the Kasumbalesa-Chingola Road, involving between 800 and 1,600 articulated trucks. These trucks are made to be on idling for almost 12 hours every day, as move at a snail's pace to Kasumbalesa, sometimes taking the drivers up to two weeks to cover a 60km road stretch to reach the border Post.

An idling engine can produce up to twice as many exhaust emissions as an engine in motion. The exhaust emissions contain a range of air pollutants such as carbon monoxide and carbon dioxide. Excessive amounts of carbon monoxide and carbon dioxide in the atmosphere can contribute to global warming.

According the United States Environmental Protection Agency (EPA), the emissions rate for truck on idling is 144 grams of NO_x emissions per hour. A 30 km stretch can contain approximately 1,428 trucks which average 21 meters. In 12 hours such a number of trucks emit 2,467,584 grammes of NO_x emissions. Since trucks are on the move every day in every year, approximately 900,668,160 grammes of NO_x are emitted by the trucks, which is equivalent to 900,668.16 tonnes of NO_x emissions. This is a huge contribution to global warming.

The proposed project is aimed at reducing these emissions by construction of a parking lot where approximately 1,500 trucks can be parked at any given time. This will eliminate the idling time for engines and thereby cut the emissions by 900,668.16 tonnes of NOx emissions.

2.2.3. Effect on Low Income Targeting and Gender Actions

The proposed project has a social mitigation component whereby women and youths involved in subsistence cultivation and sale of tomato and other cash crops will be targeted for empowerment. A scheme will be put in place whereby the target groups will be organized to form cooperatives which will be funded to produce export grade tomato and other cash crops. The crops will be sold to the warehouse operators who in turn will add value by treating them according to international best practice so that they are preserved for longer shelf-life.

This arrangement will not only help remove the women from toiling to produce crops which go to waste because of short shelf-life assist them produce high-value crops and thereby enhance their incomes considerably. The market for tomatoes in DRC is very huge. Thus, DRC offers a very good market for tomato growers if only the shelf-life and transport systems are considerably improved.

Additionally, the arrangement will help remove the burden of women sitting in the sun on daily basis, seeking market for their crops, only to get peanuts for their tolling, or indeed their produce going to waste for want of treatment and appropriate storage facilities.

2.2.4. Effects on Traffic Volume

Due to lack of appropriate customs facility at Sakania Border Post, literally all cargo trucks are forced to mainly use Kasumbalesa Border Post. The average daily traffic volume for cargo trucks at Kasumbalesa Border Post has been steadily increasing. From January to October 2016 the trucks using Kasumbalesa were 71, 933. The volume increased by 18% to 81, 055 in 2017. Over 150,000 trucks used Kasumbalesa in 2020.

As indicated above, Kasumbalesa Boarder post is too congested such that most of the time, the convoy of parked trucks covers on average 30 km. At other times, the convoy of parked trucks parked along the road extends up to as far as Kitwe, almost 70km from Kasumbalesa.

If the proposed project is implemented, it will significantly reduce the traffic volume at Kasumbalesa Border Post.

2.2.5. Effects on Reductions in Traveling Time

The most remarkable effect of the project on the road and its vicinity to the nearest DRC entry port to Zambia, and in that regard will be the reductions in traveling time to Lubumbashi, the main destination of most cargo.

As indicated above, the existing Border post as Kasumbalesa is very congested such that trucks sometimes spend up to two weeks to be cleared.

The completion of the project will greatly improve not only transportation between Sakania and DRC, but also overall traveling times in the region will be dramatically shortened.

2.2.6. Effects on Income

After completion of the project, it is projected that traffic volume based on actual traffic volumes measured at Kasumbalesa will grow from almost zero to about 160,000 per annum in 2023. Thereafter, it is anticipated that traffic will increase at least by 18% annually.

The increase in traffic will entail an increase in revenue, not only for ZRA, but RDA, ZR, Ndola City Council, and other government agencies involved, including the CBE consortium, and the local communities, especially women and the youth.

2.3. Environmental and Social-Economic Impacts

2.3.1. Environmental Impact

During the scoping stage of the proposed project, it was noted that of all project activities, road construction might pose a major environmental problem, in addition to hindering the free movement of people and cars along the road. For this reason, various measures will be taken to eliminate environmental concerns.

Measures will include construction of detours along the road except along certain sections to minimize impacts on the movement of people and cars as well as the provision of water to suppress dust along the detours at certain intervals. Sufficient signage will also be displayed at certain intervals to ensure safety of road users.

Construction of the customs facility, warehousing and paving of the land for parking bay imposes environmental costs, including greenspace loss (reduced landscaping, farmland, wildlife habitat etc.), increased impervious surfaces, and related storm-water management costs, heat island effects, and aesthetic degradation.

Parking facility costs are often perceived as sunk. Land devoted to parking is often treated as having no opportunity costs, so the only costs of increasing supply are construction and maintenance expenses. Once a parking space is built or leased, facility owners and managers often assume there are minimal savings if parking demand were reduced, for example, if employees shift modes and leaving parking spaces unoccupied.

However, reducing parking demand usually can provide savings and benefits, by avoiding the need to add parking to accommodate growth, by allowing parking facilities to be leased or rented for other users, or the land can be converted to other uses such as buildings or greenspace, or sold.

Opportunity costs are particularly large in growing urban areas where parking demand and land prices are high and increasing, and in areas with high environmental values where reducing pavement provides substantial benefits.

The proposed project, being a border post, the generous parking and warehousing requirements will tend to discourage infill development and sprawl.

Though construction will tend to reduce housing affordability, the construction of parking and warehousing facilities, particularly parking structures, will help consume significant emissions of greenhouse gases from idling truck engines.

An Environmental and Social Management Plan (ESMP) for the proposed project will be developed that will stipulate measures approved by ZEMA to ensure all negative environmental impact to be minimized.

It is therefore necessary to wait for the approval of the ESMP by ZEMA before a detailed stipulation of the impacts that the project will have on the physical and social environment.

2.3.2. Social and Economic Impact on Local Communities

As indicated above, the proposed project has a social mitigation component whereby women and youths currently involved in subsistence cultivation and sale of tomato and other cash crops will be targeted for empowerment. A scheme will be put in place whereby the target groups will be organized to form cooperatives which will be funded to produce export grade tomato and other cash crops. The crops will be sold to the warehouse operators who in turn will add value by treating them according to international best practice so that they are preserved for longer shelf-life.

The results of preliminary field survey confirmed that the proposed project is likely to facilitate steady advances in the development of transport services for neighboring areas as well as possibility of establishment of trickle down businesses including gas stations, automobile maintenance workshops, guest houses, pubs and other facilities.

In addition, residents living in areas neighbouring the proposed project may enjoy greater convenience with more opportunities to access health care and education. Furthermore, substantial improvements in transportation between Sakania and other provincial areas such as Ndola, Mufulira, Kitwe, Luanshaya, and others, are likely to invigorate the economic activities of small- and medium-sized corporations, contributing to the creation of new job opportunities.

For example, prior to commencement of the project, Sakania, located in the remote side of the City of Ndola, has only a pot-holed road with no access to the new airport. Due to the dilapidation of the road, few bus services or other large public transport facilities are available. After completion, however, most likely, bus service will be running several times a day between Sakania and Ndola and Sakania and Mufulira.

Opportunities for distribution, trade and human resources are likely to be developed rapidly as a result to become a major business hub of the City of Ndola and Copperbelt. In addition, after the road from Ndola to Sakania will be paved, the project is likely to trigger the development of new infrastructure by local governments including the paving of roads to Mufulira, and possibly to new airport and to Kitwe via Mwekera.

2.4. Economic and Financial Returns

Trade is the major driver of countries' economic growth and development. It receives emphasis in national and regional development plans. Shippers and transporters of cargo demand high performance corridors to reduce costs and time spent on transport and logistics. As a nation and region, it is therefore

imperative to increase reliability and predictability of the transport corridors in order to maximize economic and financial returns arising from such business. Lengthy transit times increase cost of trade and makes the border post less competitive.

In 2020, DRC imports from Zambia were US\$971 million. The volume of trade has been exponentially growing over the last five years. DRC imports from Zambia increased from about US\$450 million in 2016 to US\$900 million in 2019. Beside Zambia, DRC also imports from China, South Africa, Rwanda and Belgium. In 2019, the imports from these countries were as follows: China (US\$2.08 billion); South Africa (US\$1.05 billion); Rwanda (US\$371 million); and Belgium (US\$362 million).

DRC main exports are copper (56%); cobalt (21%); gold (13%); These minerals are mostly mined in Katanga Province and eastern Congo. The main export partners are China (24%); South Africa (22%); and European Union (4%). In monetary terms, the exports have increased in the last five years from about US\$11.5 billion in 2016 to US\$16 billion in 2018. Due to the COVID-19 pandemic the exports slightly decreased in 2020 to US\$15 billion. Zambia's imports from DRC increased from US\$400 million in 2015 to US\$1.4 billion in 2018. However, due to mining policy changes, coupled with COVID-19 impacts, imports drastically reduced to US\$200 million and US\$71 million in 2019 and 2020 respectively.

Both imports and exports mainly use the Zambian ports of entry, particularly Kasumbalesa Boarder Post. With the reduction of COVID-19 impacts, and the likely changes in the mining and business policies between Zambia and DRC, there is projected an exponential growth of the volume of trade in terms of exports and imports. It is therefore imperative to modernize Zambia's ports of entry and exit ports so as to minimize lengthy of transit times and cost of trade and thereby make Zambian border posts more competitive.

As indicated above the main border post for imports and exports to DRC is Kasumbalesa. It handles about 650 trucks per day. The border post is also a PPP project. At conception the cost of border infrastructure was US\$33 million. The border/terminal crossing fee is US\$100 per truck. The current average total collection per annum from port charges is US\$23.73 million is which is quite some lucrative revenue.

Revenue streams from the proposed project are as follows:

- (a) Revenue from customs clearance (Government revenue)
- (b) Revenue from the parking facility (investors' revenue)
- (c) Revenue from the warehousing facility (investors' revenue)
- (d) Revenue from the toll plaza (investors' revenue)
- (e) Revenue from the rental of office spaces (investors' revenue)

Therefore, in addition to port charges for the trucks that cross, the financial model for proposed facility has an added advantage due to additional revenue streams from warehousing, toll plaza and office rental spaces. Furthermore, the proposed facility will have increased capacity for truck up to average 1, 500 trucks per day. At optimal operation the projected revenue from truck crossings alone could hit US\$54.85 million per annum. This level of revenue, should suffice to pay off the loan within the proposed timeframe.

In terms of Government revenue through customs, it is projected that collections at the proposed project will increase by more than 1000%.

2.5. Strategic Relevance

2.5.1. Cross Border Benefits

Infrastructure development is central to facilitation of intra-regional trade and movement of people, goods and services, as is articulated in the African Union (AU) Agenda 63. The model planned of OSBP is in line with the national as well as African Union, COMESA and SADC trade facilitation agenda.

As has been already discussed above, the proposed customs facility is intended to curtail the negative impacts of an inefficient border control by improving the trade facilitation and support infrastructure.

2.5.2. Relevance to Fragility, Conflict and Violence Setting

Fragility, conflict and violence (FCV) present a critical challenge to development and threatens efforts to end poverty. The World Bank estimates that two-thirds of world's extreme poor could live in FCV settings.

Without peace no development takes place and thereby pushing people into extreme poverty. The protracted conflict in eastern Congo has almost put a brake on the country's revival, the country is slowly turning around the corner from the FCV setting.

Donors, and neighbours could help DRC by supporting conflict-sensitive programmes that help improve the socio-economic conditions around Katanga and Eastern Congo.

The proposed project does not in any way aggravate the FCV setting. In fact, it significantly helps improve the socio-economic conditions of FVC affected persons.

2.6. Preconditions

- (a) **Project life:** per stipulated in the PPP Agreement
- (b) **Costs:** per stipulated in the PPP Agreement
- (c) **Benefits:** per stipulated in the PPP Agreement
- (d) **Development Incentives:** per stipulated in the PPP Agreement