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Evaluation of TMEA Supported Projects in the Areas of Infrastructure (Port of Dar es Salaam and OSBPs – Tunduma, Mutukula, Kabanga and Holili)

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EXECUTIVE SUMMARY

TMEA supported projects are aimed to reduce trading costs for Tanzania firms and businesses, but also on improving business environment. This has been done through supporting infrastructure work at the Port of Dar es Salaam, as well as borders along the key transport corridors (i.e., Tunduma/Nakonde, Mutukula, Kabanga/Kobero and Holili/Taveta). Interventions at the port of Dar es Salaam was aimed at reducing congestion and improving-efficiency. The four OSBPs projects were implemented to reduce delays and costs in crossing the borders for trucks/vehicles, goods and people. Having executed most of the works, TMEA Contracted M/s STET International (T) Limited to undertake an evaluation of the infrastructure works at Dar es Salaam Port and the four OSBPs.

This survey, was undertaken from a sample of 100 traders randomly selected from a list of about 300 traders based in Dar es Salaam, that were focussed to bring about the study results for the Port of Dar es Salaam, whereas at least 200 traders each of the four-border post namely Tunduma, Kabanga, Mutukula and Holili were involved. However, during interview sessions, a total of 139 respondents (139%) were successfully interviewed. In terms of infrastructure disaggregation, the team, managed to interview 105% (21 out of 20) of the target sample size for the port of Dar es Salaam, 195% (39 out of 20) for Holili/Taveta OSBP, 115% (23 out of 20) for Kabanga/Kobelo OSBP, 125% (25 out of 20) for Mutukula OSBP and 155% (31 out of 20) for Tunduma OSBP. The total questionnaires therefore administered for regional traders' survey were 37 while that of community traders survey were 81 making the total interviews conducted to 139. Data entry exercise during data collection were done through CSPro software using Computer Assisted Telephone Interview (CATI). Therefore, the study analysis of data used the STATA 15 software applying frequencies and percentages modes. Where appropriate, data presentation is displayed using different charts, like in other studies. This baseline study has the following limitations:

- Despite the challenges of locating some of the earmarked traders as from the sample provided and the fact that there were no response to some, after initiatives to contact them from a wider provided sample, the Consultant was however able to consult with traders who responded accordingly.
- Due to limitations of time, it was difficult for some traders to provide quantitative data such as imports/exports volume and revenue data prior and after infrastructure improvement, the team used such data available and retrieved from Customs Data Base (TRA).
- Baseline data for some indicators i.e., commodity prices, population, number of traders, etc., were not collected for tracking progress/outcome after infrastructure improvement, the team used perceived responses from traders who have been in business prior and after the infrastructure interventions.
- Unavailability of imports/exports volumes and revenue data for at least 5 years prior to infrastructure interventions; limits proper correlation analysis of the interventions against imports/exports volume, as well as impact on revenue to the government.

Based on the survey findings, improvement in infrastructure at the port of Dar es Salaam and the subsequent constructions of OSBPs at Tunduma, Mutukula, Kabanga and Holili border are crucial interventions to improve port productivity and border efficiencies respectively. Success of these interventions can be seen through amongst others reduced time and cost associated with the logistical processes of exporting and importing of goods, increased satisfaction levels with trade supply chain integrity, increased level of compliance and enforcement of import/export processes and regulation, reduced levels of documentary fraud amongst importers/exporters, increased transparency levels by traders, and increased accountability among key border agencies.

However, the impact/outcome of port improvement in terms of business competitiveness could not be assessed. This was due to the fact that, out of 51 recommendations to improve the port productivity, only 20 recommendations are fully implemented so far (i.e., about 40%) due to lack of funding following expiry of MoU between TMEA and TPA. Similarly, assessment of correlation between improved infrastructure and import/export volume for the port of Dar es Salaam, is also premature as amongst the key recommendations to be implemented, are still in progress i.e., the dredging work.

Impact/outcome assessment therefore could fairly be analysed on the OSBPs as they were in place between 2015 – 2018. Holili/Taveta OSBP for instance was the first OSBP in Tanzania. It started operations on 30th April 2015 followed by Mutukula and Kabanga OSBP which started operations on 20th June 2016 and 31st August 2016 respectively. Tunduma OSBP started operations on 30th July 2018. These facilities had huge impact/outcome to the business competitiveness as well as community around them. In terms of the satisfaction with the facility, traders are generally satisfied (overall average satisfaction rate of 82.1%, 64.1%, 81.3% and 80.2%) with the OSBP facilities, clearance procedures and cost of using the facility for Tunduma, Mutukula, Kabanga and Holili respectively. Traders generally agree that there is improved business competitiveness at firm level following construction of OSBP (overall average perception rate of 83.8%, 63.2%, 88.9% and 83.8% for Tunduma, Mutukula, Kabanga and Holili respectively). The key business competitive elements reported here include amongst others easy coordination of border agencies via the lead agency (TRA), increased transport turnaround time, increased trading volume, improved safety and security of goods and improved joint problem-solving collaborations amongst traders. It is also reported that, these facilities have more impact/outcome to women enterprises competitiveness than when there was no facility. Traders generally agree that construction of OSBPs have benefited more women enterprises (overall average perception rate of 75.0%, 50%. 88.9% and 67.6% for Tunduma, Mutukula, Kabanga and Holili respectively). The survey has identified key challenges that impact overall productivity from the port and/or border operations efficiency. Using trend analysis for imports/exports volumes before and after improvement of infrastructure, it can be concluded that, correlation with time to gauge the effect due to change of infrastructure occurred over time. A set of recommendations are herein provided to improve port productivity and/or border operations efficiency:

a) The Port of Dar es Salaam

i) Limited number of Container berths: Relocate KOJ from Kurasini to Mbwamaji so that berth number 12 – 15 can be constructed;
ii) Low efficiency in port operations due to low level of independence: Introduce business units for all terminals;
iii) Port congestions due to limited space at the port: Reinstate ICDs as extension to the port for container storage as well as for Motor Vehicles imported to reduce port congestion;
iv) Dedicate the Kwala Dry Port to handle Transit Containers, hence provide more room in the Port;
v) Ensure both TAZARA and TRC rail functioning and connected to the Port Rail Mounted Gantry Crane at TICTS; and
vi) Absence of cruise ship terminal: Construct a dedicated cruise ship terminal to avoid sharing with cargo berth/terminals.

b) Tunduma OSBP

i) Due to traffic incidental challenges at Tunduma – Nakonde border, the Consultant suggest availability of a 60 Tons Crane, to offer services on two folds;
   - When there occur differences between Shipper and Carrier to deliver the cargo to final destination for whatever reasons at cost.
   - When a carrying truck is involved in an accident or to any of the border challenges, to allow delivery of cargo onto a different truck.
ii) Need for border provision of a Forklift: in the event of a need for cargo verification;
iii) Absence of friendly verification bay with higher steps for viewing on top of tankers especially for women: Construct a modern and gender friendly verification bay for inspection of tankers;
iv) Narrow road to Zambia: Expand the approach road to at least three (3) lanes from the existing one (1) lane to allow overtaking;
v) Narrow and congested Tunduma road especially from Mpemba to the OSBP: Expand the Tunduma highway at least from the Weighbridge (Mpemba) to the OSBP from the existing two (2) lanes to at least four (4) lanes to improve traffic flow;
vi) Parking yard is inadequate: Procure extra space and extend the truck holding yard as per the demand. All tracks should be accommodated at the OSBP to avoid smuggling);
vii) Absence of scanners for quick verification of homogenous cargo and empty trucks: Expedite construction and installation of modern scanner to speedup cargo verification especially for homogeneous cargo including empty trucks;
viii) Absence of office for other key OSBP stakeholders: Provide office accommodation within the OSBP for other key stakeholders such as TAFFA, TCCIA and Drivers association;
ix) As Tunduma being a terminal border township, existing adjacent TAZARA Railway Station lacks an interface link to / or from the main road. This denies traders the use of Tazara railway for carrying their goods; and,

x) Absence of 24hour service for the Bank: Ensure the Bank operates 24hrs similar to the OSBP operation schedule.

c) Kabanga/Kobelo OSBP

i) Lack of off-loading equipment: Provide off-loading equipment i.e., forklift and heavy-duty cranes; in the event of a need for cargo verification.
ii) Absence of reliable water supply and frequent power interruption disrupts office operations: The government should invest in water supply infrastructure at Kabanga area rather than dependence on unreliable private entrepreneur. Similarly, the government through TANESCO should strengthen power supply in Kabanga area from the ongoing Rusumo hydro power project;
iii) Narrow road coupled with limited truck parking yard creates longer queues in Kobelo side: The government of Tanzania through bilateral relations should advocacy for Burundi government to expand the truck parking yard and the approach road towards Kobelo OSBP to at least three (3) lanes from the existing one (1) lane to allow overtaking to improve traffic flow;
iv) Absence of scanners for quick verification of homogenous cargo and empty trucks: Construct and install of modern scanner to speedup cargo verification especially for homogeneous cargo including empty trucks;
v) Limited operations from the offices at the entry and exit point on the Tanzania side due to absence of adequate space: Offices at the entry and exit point on Tanzania and Burundi/Kobelo side were designed as guard house rather than offices as a result all operations ought to be done at the entry gate on the Tanzania side are done inside the main OSBP building. At the exit gate and in Kobelo, officers are squeezed in the guard house. It is recommended to construct adequate offices at the entry and exit point for the target gate operations;
vi) Absence of office for other key OSBP stakeholders: Provide office accommodation within the OSBP for other key stakeholders such as TAFFA, TCCIA and Drivers association to reduce delays in documentation;
vii) Absence of Laboratory for some key agencies i.e., Ministry of Agriculture and Tanzania Bureau of Standards (TBS) when doubtful on cargo verification: Construct modern laboratory for the key agencies to ensure efficiency cargo verification; and
viii) Absence of 24hour service for the Bank: Ensure the Bank operates 24hrs similar to the OSBP operation schedule.

d) Mutukula OSBP

i) Lack of off-loading equipment: Provide off-loading equipment i.e., forklift and heavy-duty cranes; in the event of a need for verification of cargo;
ii) Presence of several exit/feeder roads within control zone: By design, OSBP require one access road from entry to exit point. Provide capstone to train traffic to the border exit point;
iii) Limited operations from the offices at the entry and exit point on the Tanzania side due to absence of adequate space: Offices at the entry and exit point on

Tanzania side were designed as guard house rather than offices as a result some operations ought to be done at the gate are done inside the main OSBP building. It is recommended to construct adequate offices at the entry and exit point for the target gate operations.

iv) Absence of scanners for quick verification of homogenous cargo and empty trucks: Construct and install modern scanner to speedup cargo verification especially for homogeneous cargo including empty trucks;

v) Delays due to system interface between TANCIS and ASCUDA ++: Fix the interfacing challenges to ensure all documents lodged in ASCUDA++ can fully be retrieved in TANCIS system to avoid delays;

vi) Absence of office for other key OSBP stakeholders: Provide office accommodation within the OSBP for other key stakeholders such as TAFFA, TCCIA and Drivers association; and

vii) Improper bond for cargo from Kenya to Tanzania via Uganda: All cargo under EAC are ought to be zero bond, however, for cargo from Kenya to Tanzania via Uganda, URA bonds it. It is recommended the government of Tanzania through bilateral relations to ensure URA treats such cargo equally to other EAC cargo i.e., zero bond.

e) Holili/Taveta OSBP

i) Lack of off-loading equipment: Provide off-loading equipment i.e., forklift and heavy-duty cranes; in the event of a need for cargo verification;

ii) Absence of scanners for quick verification of homogenous cargo and empty trucks: Construct and install of modern scanner to speedup cargo verification especially for homogeneous cargo including empty trucks;

iii) Longer queues on both countries due to frequent system down time: Single Customs Territory (SCT) system has been frequently going down thus creating longer queues, increases storage charge especially in Mombasa and so encouraging corruption. It is recommended the two countries to evaluation the cause of frequent system down time and fix it;

iv) Absence of office to accommodate office incharge for Kenya and other key OSBP stakeholders: Provide office accommodation within the OSBP for office incharge for Kenya and other key stakeholders such as TAFFA, TCCIA and Drivers association to reduce delays in documentation;

v) Parking yard is inadequate: Extend the truck holding yard as per the demand. All trucks should be accommodated at the OSBP to avoid smuggling);

vi) Absence of animal holding yard disrupts verification process: Construct animal holding yard for easy verification of animals being reared towards Tanzania side for sale; and

vii) Absence of 24hour service for the Bank: Ensure the Bank operates 24hrs similar to the OSBP operation schedule.

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ABREVIATION AND ACRONYMS

CATI	- Computer Assisted Telephone Interview
DAP	- Data Analysis Plan
DMGP	- Dar es Salaam Maritime Gateway Program
EAC	- East African Community
ICD	- Inland Container Depot
KOJ	- Kurasini Oil Jet
OSBP	- One Stop Border Post
OSBP	- One Stop Border Post
PSU	- Primary Sampling Unit
SCT	- Single Customs Territory
SSU	- Secondary Sampling Unit
TCCIA	- Tanzania Chamber of Commerce Industrial and Agriculture
TICTS	- Tanzania International Container Terminal Services
TMEA	- Trademark East Africa
TPA	- Tanzania Porta Authority
TRA	- Tanzania Revenue Authority
TWCC	- Tanzania Women Chamber of Commerce
ZRA	- Zambia Revenue Authority
EACMA	- East African Community Customs Management Act

EVALUATION OF TMEA SUPPORTED PROJECTS IN THE AREAS OF INFRASTRUCTURE (PORT OF DAR ES SALAAM AND OSBPS – TUNDUMA, MUTUKULA, KABANGA AND HOLILI)

1.0 INTRODUCTION

1.1 Background

TMEA has supported projects aimed at reducing trading costs for Tanzania firms and businesses, but also improving business environment. This has been done through supporting infrastructure work at the Port of Dar es Salaam, as well as borders along the key transport corridors.

TMEA has implemented various projects at the port, aimed at reducing congestion and improving-efficiency. Some of the projects and results achieved by TMEA on the port include:

i) Improvement of roads at the port, that provide access to gates number 4, 5, and 8;
ii) Studies onport productivity (3 studies); and
iii) Completion of business cases of RoRo (roll on/roll off) at new Berth 0; bulk, break bulk and grain terminals at modernized Berths 1-4; and new container terminals at berths 5-7 and 12-14 to enable Tanzania Porta Authority (TPA) to operate its berths as separate operating or profit centre.

OSBPs projects at Tunduma/Nakonde, Mutukula, Kabanga/Kobero and Holili/Taveta were implemented to reduce delays and costs in crossing the borders for trucks/vehicles, goods and people. In 2021, TMEA conducted a time and traffic survey to establish the efficiency increase at some of the borders. The surveys aimed to:

i) Determine current flow of traffic for freight and passenger vehicles across the border;
ii) Measure border crossing time for cargo vehicles; and,
iii) Determine the level of satisfaction of border users of the current facilities, plus the key costs associated with using the border.

On account that these surveys were not carried out for all interventions made, TMEA envisions carrying out additional survey for all infrastructure works supported by TMEA to further establish the extent at which these works have improved firm level efficiency and competitiveness. It is on these grounds that TMEA has Contracted M/s STET International (T) Limited to undertake an evaluation of the infrastructure works at Dar es Salaam Port and the four OSBPs mentioned herein.

1.2 Aim and Objectives

The objective of the assignment is to carry out evaluation of TMEA supported projects in the areas of infrastructure (Port of Dar es Salaam and One StopBorder Posts (OSBPs) at Tunduma, Mutukula, Kabanga and Holili). Specifically, the objectives of the assignment are to:

i) Assess improvement of private sector competitiveness at firm level (exporters/importers) in terms of reduced time of export/import, reduced exports/import procedures and reduced cost of exportation and importation as the result of TMEA interventions at Dar es Salam port and the four OSBPs.
ii) Establish correlation between improved infrastructures and export and import volumes by companies.
iii) Assess other auxiliary benefits from the interventions e.g., increased government revenue,new jobs created, price changes, improved livelihood of the surrounding communities.
iv) Assess the extent at which women owned enterprises have benefited from the improved infrastructures.
v) Identify other challenges which if addressed can improve border crossing efficiency.

1.3 Scope of the Assignment

The scope of this assignment is centred on the study objective which is to assess TMEA supported infrastructure interventions at Port of Dar es Salaam and OSBPs at Tunduma, Kabanga, Mutukula and Holili. The study will therefore include data collection to project beneficiaries and stakeholders at the Port of Dar es Salaam and in all the 4 OSBPs where infrastructure interventions were implemented. At the port of Dar es Salaam, a baseline survey was done in 2017 aimed at assessing the current port performance and recommending measures to improve the port productivity. However, since then, no mid-term surveys were undertaken. The Consultant will investigate progress towards implementation of the recommendations and assess outcome of the same. Where recommendations are yet to be implemented, the Consultant explored challenges for failure to implements the afore planned recommendations.

At all the OSBPs, the baseline surveys were undertaken followed by midterm/impact surveys post construction of these OSBPs. The consultant therefore has highlighted the traffic and time surveys data before and after construction of OSBPs based on the baseline and mid-term/impact surveys and further assessed the outcome of the interventions with reference to their business competitiveness and livelihood.

2.0 METHODOLOGY

2.1 Survey Population

The survey population included traders who are either importing and/or exporting via the Port of Dar es Salaam and the 4 OSBPs (Tunduma, Mutukula, Kabanga and Holili). Traders operating their business **at least 10 years back** were the ones included in the survey, to ensure experience relevance prior and after TMEA intervention.

2.2 Sampling

2.2.1 Sampling Design

Sampling design was based on a probability-based random sampling frame where the units for interview were selected according to a known non-zero probability. The major advantage with this method is that it allows statistical inferences to be made about a larger population (at national or regional), which in turn can be used for targeting and impact assessment.

The study involved a two-stage clusters sampling with selection of units basing on the number of traders in the region. Therefore, the first stage is an obvious one which involved selection of areas where TMEA interventions were implemented i.e., Port of Dar es Salaam and the 4 OSBPs. A sample of traders was selected during the second stage for interview purpose using systematic selection. Therefore, the Primary Sampling Unit (PSU) selection in the first stage involved selection of areas where TMEA interventions were implemented and Secondary Sampling Unit (SSU) employed systematic selection of traders.

2.2.2 Sampling Frame and Sample Size

Sampling frames for traders using the Port of Dar es Salaam and the 4 OSBPs was requested from Tanzania Chamber of Commerce Industrial and Agriculture (TCCIA) database. Based on TCCIA, each border post has at least 200 traders while the Port of Dar es Salaam has at least 1,000 traders of which at least 300 traders are based in Dar es Salaam. On account that, issues and/or challenges facing traders in a particular import/export gateway/border are more or less be similar, a random sample size of at least 20 traders was sampled from each border post. Therefore, the total sample size for the study was 100 traders. Given, the time limit, the Consultant focused mostly on traders close to the border post and where necessary those residing away from the border post were contacted by phone. Using data from Tanzania Women Chamber of Commerce (TWCC) database, traders were disaggregated by gender of which at least 15% of sample size are women traders.

2.3 Training and Data Collection

The pre-coded questionnaires were used to collect information on firm characteristics and planned outcome evaluation for TMEA supported projects. The mode of data collection was either face-to-face, phone or self-administered interviews depending on the availability or preferred choice by the sampled respondent. First, the interviewer contacted the sample respondent to request for appointment for face-to-face interview. In case, the respondent was not available for face-to-face interview then the interviewer requested for the option of conducting interview by phone. Alternatively, in case the respondent requested to have self-administered questionnaire interview then the interviewer emailed the link to the relevant questionnaire tool. The three options provided flexibility of interviewing the kind of target people for the survey especially the business owners/firms.

Focus Group Discussion and Key Informant Interview to staffs working at the Port of Dar es Salaam, Tanzania Revenue Authority (TRA), Trademark East Africa (TMEA), Logistics stakeholders i.e., Clearing and Forwarding Agents and other OSBPs enabled the collection of data to supplement and triangulate the information collected from traders' interviews.

The enumerators/interviewers were selected to conduct the survey based on previous experience and ability to use mobile technology. After the selection, enumerators were trained on overview of the project, the survey purpose, proper and improper interview techniques including obtaining consent forms, and the role and responsibility of survey team. During the training, the team reviewed all the survey questions individually, as they also observed demonstration interviews to position themselves through role-playing activity.

The team were also trained on the collection of data using Mobile Data Collection method. Data were therefore mostly collected using face to face interview for both traders and key informant interviews (**Photo 2.3 – 1**).

Photo 2.3 – 1: Typical Traders' Interviews at Holili/Taveta OSBP

Photo 2.3 – 2: Typical Traders' Interview at Kabanga OSBP

2.4 Data Entry and Analysis

2.4.1 Data Processing and Analysis

Data Processing and analysis is an integral process which consists of various stages. This subsection covers key stages that have been involved in the data management. Codebook has first been prepared which contained names and descriptions of the variables available in questionnaires. The codebook was required for creating a Computer Assisted Telephone Interview (CATI) data entry system using CSPro software and statistical analysis using STATA 15. Data therefore was processed using STATA software by labelling and coding of data. The data was analyzed using frequencies and percentages. Where appropriate, data have been displayed using different charts.

The detailed data analysis plan was created prior to data analysis stage. The analysis plan contained a description of the research question and various steps in the analysis that have been undertaken in STATA. The findings and decisions to be made during the analyses was documented for further reference, meaning the analysis plan remained a dynamic document to allow any updates in the analysis.

2.4.2 CAPI Data Entry System

CAPI data entry system was created using CSPro 7.6 basing on the questions available in the questionnaires and variable labels and definition included in the codebook. CSEntry was installed into all tablets and the system was deployed on the tablets. Data from the tablets was synced to Dropbox created account.

2.5 Data Quality Assurance and Control

2.5.1 Quality Assurance

A common survey methodology was used. As part of quality assurance, data collection tools were developed and reviewed to ensure consistency of measurement, as well as accuracy to achieve the study objectives. The training of field supervisors and enumerators on the survey tools was conducted before the actual data collection. During the training, the value of accurate data collection was emphasized. The team pre-tested the designed mobile data collection tool for the logic checks and the follow of the questions.

2.5.2 Quality Control

The data quality control measures were set to ensure data quality. Firstly, field supervisors cross-checked data collected by enumerators for each interview data for purposes of ensuring consistency. Secondly, the use of mobile data collection system had in-built data checks and so made data available to the team leader during data collection for review, verification, and rectification of any anomalies. Thirdly, the Statistician oversees the data collection process and review the data as collected to ensure adherence to standards and quality assurance mechanisms.

2.6 Consultative Process

2.6.1 Kick off Meeting

The Kick-off meeting for the assignment was held with the Client (TMEA), chaired by the TMEA Programs Manager (Mr. Elibariki Shamy). Officials from TMEA participated. The main agenda was to launch the Consultancy work and to agree on the scope and work plan.

2.6.2 Stakeholder Consultations

Stakeholder consultations for discussion and data collection were conducted May 2022 whereby various stakeholders were visited and interviewed i.e., traders, regulators, port and OSBP operators and community around the facilities. Face to face consultations were held with transport sector professionals to strengthen data collection, data validation, and clarification on salient issues.

Interactions with stakeholders primarily helped the Study Team in understanding the role played by each particular stakeholder in the import/export industry. The stakeholders also provided data required for analysis as well as establishing existing challenges/opportunities on the subject matter. Key Stakeholder identified and visited are presented in **Appendix 2.6 – 1.**

3.0 BASELINE SURVEY AND IMPACT/OUTCOME ASSESSMENT

3.1 The Port of Dar es Salaam

3.1.1 Review

The baseline survey for the Port of Dar es Salaam was conducted in October and November 2016 to assess and propose measures to improve the Performance of the Port. During the performance assessment, the results for marine services, results of the observation of cargo operations for each type of cargo and the results for clearance and customs were presented. These results are taken as baseline values for the port performance and following such results, recommendations for performance improvements were made. This section, therefore presents subsections for which the performance assessment was made and so subsequent results for the same for key selected baseline data as herein.

a) Marine Services

i) Vessels Turnaround Time;
ii) Utilisation of Tugs;
iii) Availability of Marine Equipment; and
iv) Berth Occupancy.

b) Cargo Operations

i) Containers at TPA;
ii) Containers at TICTS;
iii) RoRo;
iv) Break Bulk and General Cargo; and
v) Liquid Bulk.

c) Clearance and Documentations

i) Lodgement of Manifests
ii) Clearance of Cargo;
iii) Physical Customs Inspection;
iv) External Trucks Cycle;
v) Container Scanning;
vi) Inland Container Depots; and
vii) Gate Performance.

3.1.2 Marine Services

a) Vessels Turnaround Time

The baseline values for vessels turnaround time showed that, the total vessels turnaround time is 4 days of which waiting time is 2 days, at berth 1.9 days and berthing/unberthing 0.1 day (**Table 3.1 – 1**).

Table: 3.1 – 1: Vessels Turnaround Time

Section	Waiting for Berth		Berthing/Unberthing		at Berth		Turnaround	
	d	hr	d	hr	d	hr	d	hr
	Observations Oct - Nov 2016							
Containers	2.8	67.2	0.1	2.5	1.8	43.9	4.7	113.6
Dry Bulk	1.3	32.2	0.1	3.5	4	95.6	5.4	131.3
Break bulk	0.9	21	0.1	2.8	1.9	45.5	2.9	69.3
RoRo	0	1	0.1	2.2	0.5	13.1	0.6	16.3
Tanker	3.4	82.2	0.1	2.4	2.5	59	6.0	143.6
Average	**2**	**47.7**	**0.1**	**2.5**	**1.9**	**45**	**4.0**	**95.2**

Source: HPC, 2017

b) Utilisation of Tugs

The baseline values for Tugs utilisation were collected based on provided data by TPA between 2015 and 2016. Utilisation of tugs were way below 50% due to unavailability of tug "Duma" due to damage of her port gearbox and the limited power/bollard pull of "Ami Konishi". It was reported that, during baseline survey, out of five tugs were stationed in the Port of Dar es Salaam, only two tugs were used for assistance of vessels destined to or leaving berths 1 to 11 and KOJ1 and KOJ2, namely "Sato" and "Chatu", as were evidenced by Port Control's logbook. Occasionally also "Kiboko" was used, although this tug is primarily meant to assist during vessels' movements at the SPM. In view of the above, only one vessel could be attended at a time, and sometimes vessels had to wait for their turn (**Table 3.1 – 2**).

Table 3.1 – 2: Utilisation of Tugs

Tug	2015	Jan – Sep 2016
Kiboko	34%	44%
Sato	31%	34%
Duma	30%	
Amy Konishi	19%	18%

Source: HPC, 2017

c) Availability of Marine Equipment

The baseline values on availability of Marine equipment were taken from data from TPA in 2016. However, the calculation of the monthly average availability as presented herein were incorrect. It only shows how many crafts of a certain type have been in operation, e.g., 3 out of 4 tugs = 75%. However, the remaining tugs were also not fully available, as were concluded from the daily availability sheets (**Table 3.1 – 3**).

Table 3.1 – 3: Availability of Marine Equipment, 2016

S/N	Equipment Category	Book Holding	Serviceable	Available Units	Week 1	Week 2	Week 3	Week 4	% Monthly Availability	Date Out of Operational	Remarks
1	Berthing Tugs	4	1	3	3	3	3	3	75%	25/5/2016	**Tug Kiboko**: For SBM and Port**. Tug Duma: Out of operation, PS gear box defective.**
2	Pilot Boats	2	1	1	1	1	1	1	50%	14/7/2015	Chande: Not operational oil leakage on crank shaft seal SB main engine. (Un-docked on 4/1/2016 but with no both main
3	Mooring Boats	1	1	1	1	1	1	1	100%		In Operational
4	Patrol Boats 1 Macha	1	1	1	0	0	0	0	0%	14/8/2015	Not operational, sent to dockyard for rectification of main engines and generator set - on progress.
5	Hydr Boat Janguo	1	1	1	1	1	1	1	90%		Operation, with no engine indication parameters and equipments.
6	Dingly	4	2	2	2	2	2	2	67%		No.3 & 5 Operational, No.2 is at dockyard for fibre work. No.4 un repairable, awaiting to be given boss number.

Source: TPA, 2016

d) Berth Occupancy

The baseline values for berth occupancy showed that, occupancy rate for berth under TICTS were almost 2 times that under TPA. The occupancy rate for Kurasini Oil Jet (KOJ) 1 and 2 berths ranged between 67.2% and 66.8% respectively (**Table 3.1 – 4**).

Table 3.1 – 4: Berth Occupancy Rate

Section	Occupancy (%)
Terminal Section A, Berths 1 - 4	30.4
Terminal Section B, Berth 5 - 7	47.6
Terminals A & B, Berths 1 - 7	36.1
TICTS, Berths 8 - 11	62.5
Tanker Terminal KOJ 1	67.2
Tanker Terminal KOJ 2	66.8

Source: HPC, 2017

3.1.3 Cargo Operations

a) Containers at TPA

The baseline data on the Volumes handled at TPA was not measured during the baseline survey but analysed based on the container handling data provided by TPA. TPA statistics divide the container handlings into 3 categories, being Imports, Empties and Exports. On the overall handling figures there was an increasing rate of decline over the past 2 years compared to 2014. It appears that in 2016 especially the exports dropped by nearly 50% compared to a slightly higher export volume in 2015 (**Table 3.1 – 5**).

Table 3.1 – 5: TPA Volumes for 2016

Handling 2016	20'	40'	Boxes	TEUs
Import	18.029	18.687	36.716	55.403
Empty	798	25	823	848
Export	7.589	34	7.623	7.657
TOTAL	**26.416**	**18.746**	**45.162**	**63.908**

Source: HPC, 2017

Similarly, dwell time at the TPA container yard sections was not measured during baseline survey period, but it was derived from the operational TPA records at the container terminal section where the dwell times were regularly checked per each month over the years. The average dwell time for import was 7.5 days while for export was 4.7 days. Dwell time for import/export of empty was 3.9 days thus the overall average dwell time at TPA container yard was 5.4 days (**Table 3.1 – 6**).

Table 3.1 – 6: TPA Dwell Time Records for 2016

Item	Year	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Average
Import Full	2016	9.9	8.2	7.7	5.6	6.9	5.9	7.1	8.0	8.2	7.2	8.8	7.0	7.5
Export Full	2016	4.5	4.1	5.2	4.0	4.8	6.4	3.9	4.1	4.1	2.2	6.0	7.5	4.7
Empty (IMPO/EXPO	2016	3.7	4.4	4.3	4.1	4.5	3.5	4.0	3.4	2.9	3.3	4.1	4.9	3.9
Overall (Impo, Expo, MTY)	2016	6.0	5.5	5.7	4.6	5.4	5.3	5.0	5.2	5.1	4.3	6.3	6.4	5.4

Source: TPA & HPC, 2017

b) Containers at TICTS

The baseline data on the Volumes handled at TICTS was not measured during the baseline survey but analysed based on the container handling data provided by TICTS. TICTS statistics divide the container handlings into two main categories, being discharging and loading: each of the two categories was subdivided into Full (Import & Export), Empty (Import & Export), Transhipment (Import & Export) and Restows (landing & reloading). Whilst the total throughput increased by 17.8% between 2014 and 2015, the overall

handling volume for 2016 declined by 1% compared to 2015, but was still about 16.6% above the 2014 levels (**Table 3.1 – 7**).

Table 3.1 – 7: TICTS Container Handling Volumes 2016

Handling 2016	20'	40'	Boxes	TEUs
Import Full	88.762	58.001	146.763	204.764
Import Empty	546	787	1.333	2.12
TS Inbound	11.275	3.314	14.589	17.903
Restow Disch.	323	458	781	1.239
Export Full	49.525	14.657	64.182	78.839
Export Empty	39.249	41.235	80.484	121.719
TS Outbound	11.513	3.275	14.788	18.063
RS Load	330	458	788	1.246
TOTAL	**201.523**	**122.185**	**323.708**	**445.893**

Source: TPA & HPC, 2017

Similarly, dwell time at TICTS container yard sections was not measured during baseline survey period, but was derived from the operational TPA records for 2016. It was assumed that the actual monthly container dwell times were directly reported by TICTS to TPA who monitor the dwell times regularly for the entire port. The average dwell time for import was 10.6 days while for export was 5.5 days. Dwell time for import/export of empty was 7.5 days while that of transit cargo was 11.6 days. Therefore, the overall average dwell time at TICTS container yard was 8.0 days (**Table 3.1 – 8**).

Table 3.1 – 8: TICTS Dwell Time Records for 2016, as Published by TPA

Item	Year	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Average
All Imports	2016	11.5	11.2	10.9	10.2	11.2	9.1	11.0	10.3	11.0	10.3	10.5	10.5	10.6
Transit	2016	12.4	12.2	11.8	11.1	12.3	9.9	12.0	11.2	12.2	11.1	11.2	11.2	11.6
Export Full	2016	4.7	4.7	4.2	4.6	5.1	7.6	6.0	4.9	5.1	7.1	6.5	6.0	5.5
Empty (IMPO/EXPO)	2016	6.6	7.0	7.0	8.1	5.8	8.9	8.3	7.9	7.3	9.0	6.9	6.6	7.5
Overall	2016	7.2	7.1	6.9	7.4	7.0	8.2	11.1	9.7	6.1	7.8	7.4	10.0	8.0

Source: TPA & HPC, 2017

c) RoRo

The baseline values for RoRo cargoes were not measured during baseline survey but derived from statistics from TPA. RoRo cargoes for Dar es Salaam port comprised only imports of all types of vehicles, mainly passenger cars, but also busses, trucks and machinery. TPA's statistics showed a slight decrease of such traffic between the years 2014 and 2015, but a rather steep decline between 2015 and 2016, equalling about 40%, at an average of about 8,100 vehicles/month (**Table 3.1 – 9**).

Table 3.1 – 9: Motor Vehicles Traffic 2014 - 2016

Months	2,014	2,015	2,016	Variance 2015-16	
				Units	%
Jan	11,561	10,115	8,548	-1,567	-15
Feb	12,263	11,061	8,633	-2,428	-22
Mar	14,890	16,626	8,517	-8,109	-49
Apr	11,653	14,440	8,394	-6,046	-42
May	15,966	14,625	7,728	-6,897	-47
Jun	14,934	16,927	8,482	-8,445	-50
Jul	15,489	15,160	7,798	-7,362	-49
Aug	10,292	14,349	8,726	-5,623	-39
Sep	14,263	11,171	6,056	-5,115	-46
Oct	16,633	11,777	7,947	-3,830	-33
Nov	12,612	11,702	7,826	-3,876	-33
Dec	14,763	12,874	8,697	-4,177	-32
Total	**165,319**	**160,827**	**97,352**	**-63,475**	**-38**
Average	13,777	13,402	8,113	-5,290	-38

Source: TPA, 2017

d) Break Bulk and General Cargo

Break Bulk and General Cargo baseline values were also taken from TPA statistics. However, the information provided by TPA with regards to breakbulk/general cargo was rather vague. Statistics summarised breakbulk/general cargo in one figure, regardless of export or import cargoes, the commodities, packaging or else. Therefore, all breakbulk/general cargoes were subsumed accordingly. Compared with 2014 and 2015, the yearly total for 2016 showed a decline. However, as from June 2016 onwards the monthly figures matched in general those of the previous years (**Table 3.1 – 10**).

Table 3.1 – 10: Breakbulk/General Cargo handled 2014 – 2016 (in tons)

Months	2014	2015	2016	Variance 2015- 2016	
				tons	%
January	101,289	102,363	46,598	-55,765	-0.54
February	94,668	135,400	91,592	-43,808	-0.32
March	58,443	138,030	80,217	-57,813	-0.42
April	48,676	111,683	45,088	-66,595	-0.60
May	102,931	71,578	71,635	57	0.00
June	57,882	53,089	66,793	13,704	0.26
July	101,144	40,713	63,254	22,541	0.55
August	53,100	64,803	90,180	25,377	0.39

Months	2014	2015	2016	Variance 2015- 2016	
				tons	%
September	51,572	52,354	62,032	9,678	0.18
October	75,465	59,626	59,089	-537	-0.01
November	80,812	52,683	68,651	15,968	0.30
December	70,632	61,553	86,126	24,573	0.40
Total	**896,614**	**943,875**	**831,255**	**-112,620**	**-0.12**

Source: TPA, 2017

On the other hand, performance of indirect and direct deliveries showed that, external trucks being loaded directly at a berth stayed there on average for 45 minutes while the actual loading took only 24 minutes. When trucks received their cargoes (indirectly) in the yard, they stayed on average 34 minutes and were loaded in only 8 minutes (**Table 3.1 – 11**).

Table 3.1 – 11: Truck Loading Times at Berth and in Yard (min)

		Time at Berth or in Yard	Loading Time
Vessel	Average	45	24
	Maximum	151	58
	Minimum	7	4
Yard	Average	34	8
	Maximum	66	15
	Minimum	17	4

Source: HPC, 2017

The average total turnaround time for a truck receiving or delivering general cargo was 490 minutes. While the times at the gate and the weighbridges were quite low, the times from the weighbridge to the berth and vice versa were fairly long (17% of the total duration) and could be attributed to queues in front of the weighbridge. More striking were the extremely long time from the weighbridge to the berth or storage area (145.7 minutes or 30%) and especially the time outgoing from the weighbridge to the gate (191.9 minutes or 39% of the total duration). These times could hardly be seen in connection with operational procedures in the port.

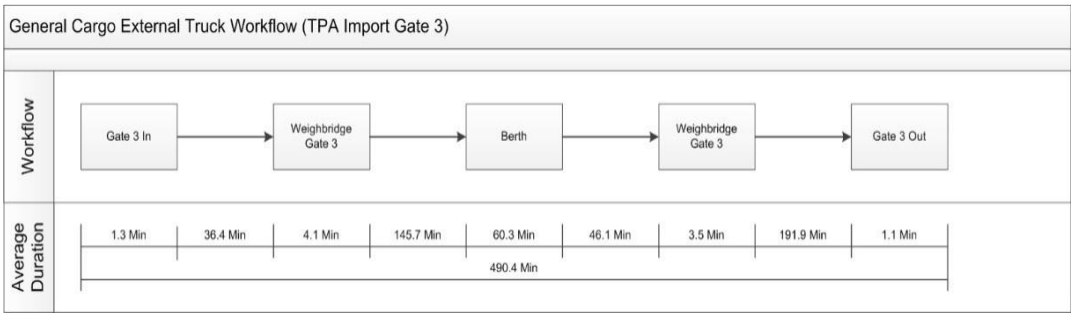


Fig. 3.1 – 1: General Cargo External Truck Workflow
Source: HPC, 2017

e) Liquid Bulk

The baseline values for the liquid bulk were also taken from statistics from TPA. When comparing the liquid bulk handling volumes of the first 10 months of 2014, 2015 and 2016, it appeared that the cargo volume handled at the SPM facility increased in 2015 over the volume of 2014, then decreased in 2016 to about the same volume as in 2014. But for the Kurasini Oil Jetty No. 1 volumes increased during 2015 and 2016. For Kurasini Oil Jetty No. 2 the volumes of 2015 were lower than in 2014, but during 2016 the handling volumes increased again and exceeded the volumes of 2014 (**Table 3.1 – 12**).

Table 3.1 – 12: Liquid Bulk Handling Volumes 2014 – 2016

Liquid Bulk Facility	SPM	KOJ 1	KOJ 2	Total
Calendar Year	M/Tons	M/Tons	M/Tons	M/Tons
2014	2,278,119	1,435,844	142,625	3,856,588
2015	2,452,963	1,822,517	126,341	4,401,821
2016	2,270,016	1,950,117	151,123	4,371,256

Source: HPC, 2017

3.1.4 Clearance and Documentations

a) Lodgement of Manifests

The baseline values for the time for lodgement of manifests showed that, the acceptance of the manifest by Customs took on average 10.7 hours. On average the acceptance of the manifest was done 47 hours before arriving on anchorage (**Fig. 3.1 – 2**).

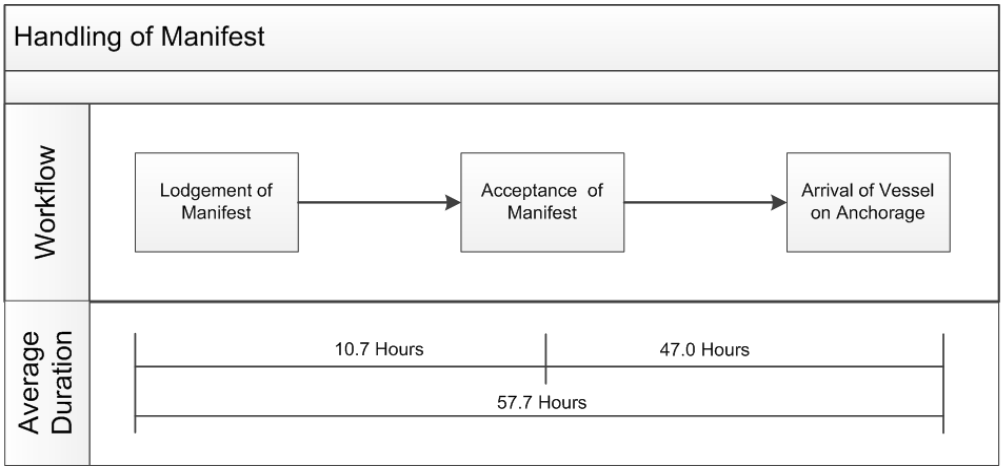


Fig. 3.1 – 2: Handling of Manifests
Source: HPC, 2017

b) Clearance of Cargo

The baseline values for Cargo clearance were estimated based on average time analysed by observing the clearance process of three consignments of one clearing agency. The average duration from vessel arrival until the delivery of the consignment of containers was 14.3 days. On average it took three days for the discharge of all containers from the vessel and more than six days to do the physical inspection of the containers. Payment of Charges took one day and the delivery out of the port gates took additional four days (**Fig. 3.1 – 3**).

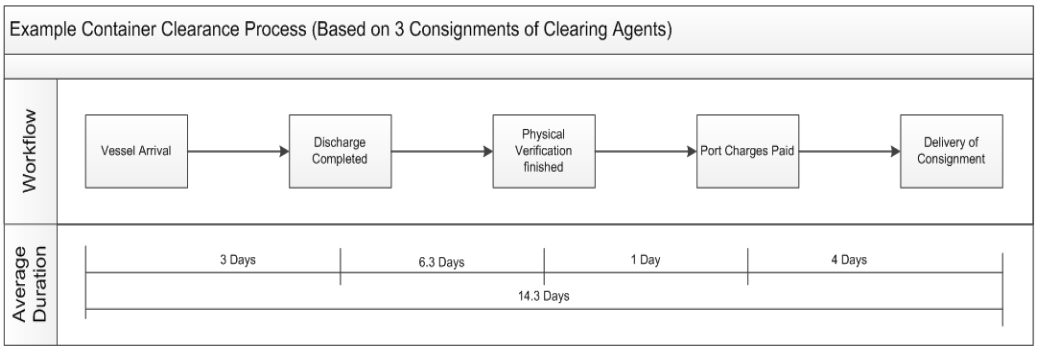


Fig. 3.1 – 3: Container Clearance Process
Source: Clearing Agent, & HPC, 2017

c) Physical Customs Inspection

The baseline values for time taken for physical Customs inspection were recorded from observations at the import yard 1 and analysis of data from Customs. On average, the duration between Customs declaration and Customs release was 9.4 days. If a physical inspection is required, as it was done for 30% of all containers, this duration was nearly doubled to 17.9 days (**Fig. 3.1 – 4 & 5**).

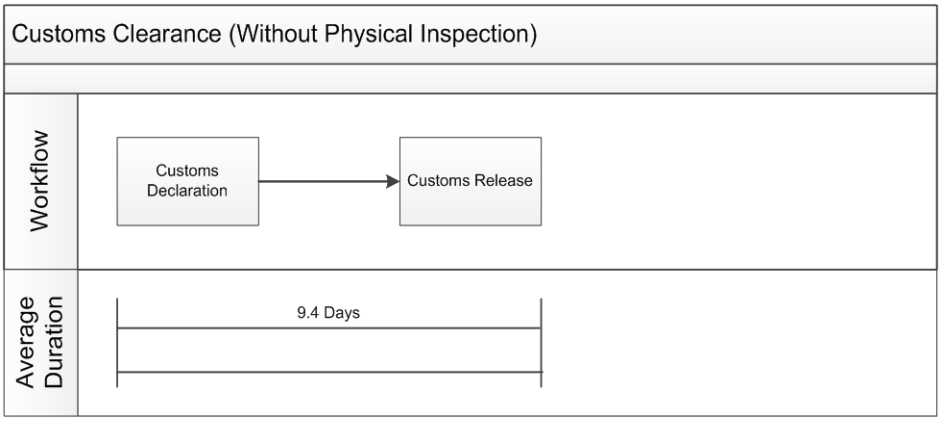


Fig. 3.1 – 4: Customs Clearance (w/o Physical Inspection)
Source: HPC, 2017

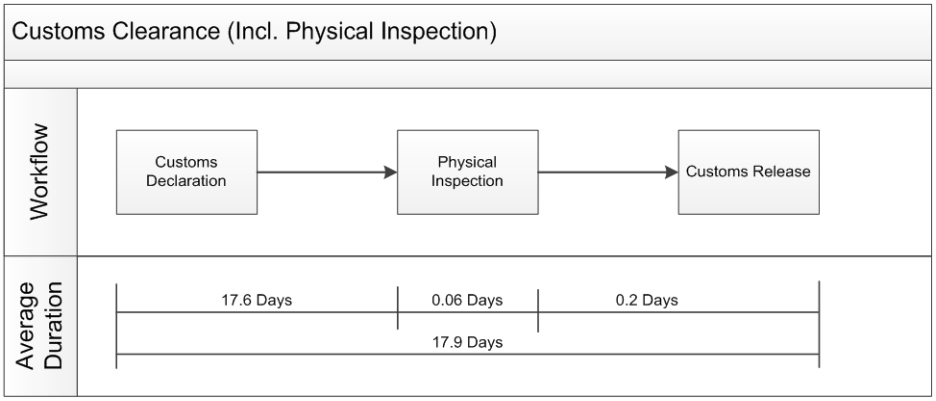


Fig. 3.1 – 5: Customs Clearance (incl. Physical Inspection)
Source: HPC, 2017

d) External Trucks Cycle

TPA

The baseline values for external trucks cycle for TPA imports was analysed based on the workflow of an external truck picking up an import container at Import Yard 1 or Import Yard 2. The total average truck turnaround time for a truck picking up an import container at TPA was 220 minutes (**Fig. 3.1 – 6**).

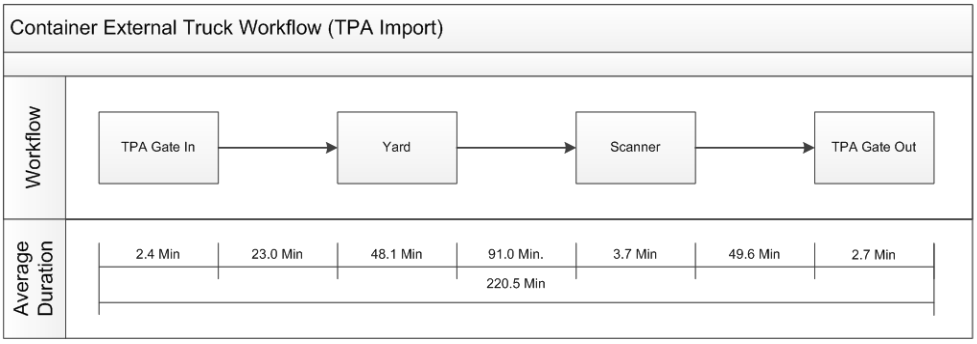


Fig. 3.1 – 6: External Container Truck Workflow (TPA Import)
Source: HPC, 2017

The workflow for external truck delivering a container for export to TPA showed a similar picture. The total truck turnaround time was nearly the same with 218 minutes and only 8% of the cycle time was required for actual operations (**Fig. 3.1 – 7**).

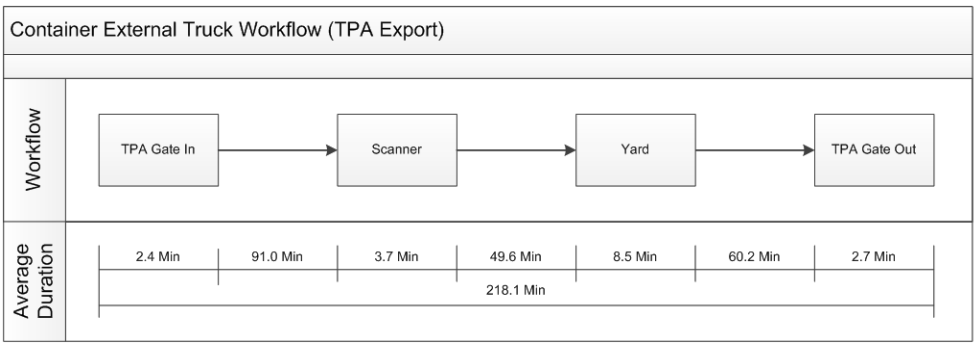


Fig. 3.1 – 7: External Container Truck Workflow (TPA Export)
Source: HPC, 2017

TICTS

The baseline values for external trucks cycle for TCTS imports, showed that the total truck cycle time was 280.6 minutes. The baseline survey showed that, most of the time the trucks were staying on the TICTS terminal and they waited in the queue of the scanner for 91.0 minutes on average and 50 minutes at the gate.

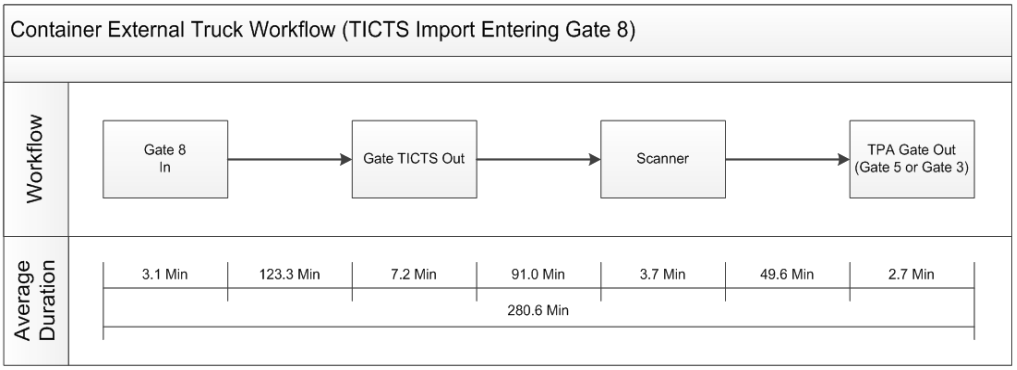


Fig. 3.1 – 8: External Cont. Truck Workflow (TICTS Import Gate 8)
Source: HPC, 2017

If trucks enter the TICTS terminal via TPA the duration of a truck cycle was 291 minutes, which was slightly higher than in the truck cycle using TICTS terminal (**Fig. 3.1 – 9**).

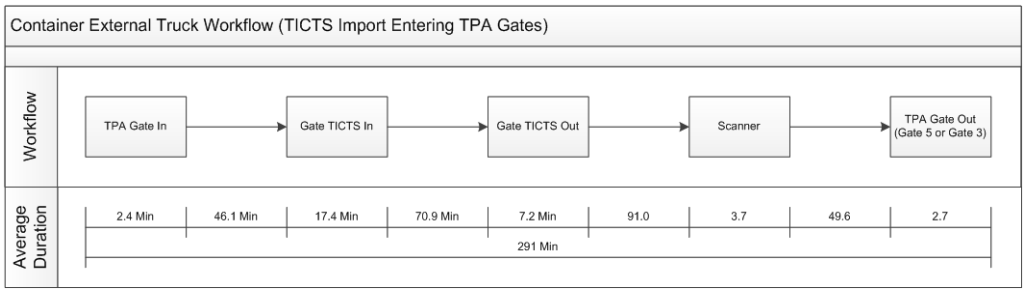


Fig. 3.1 – 9: External Cont. Truck Workflow (TICTS Import TPA Gates)
Source: HPC, 2017

Trucks delivering export containers to TICTS can only enter through Gate 8 if the containers were empty. These containers did not have to be scanned and therefore the total cycle time was only 190 minutes (**Fig. 3.1 – 10**).

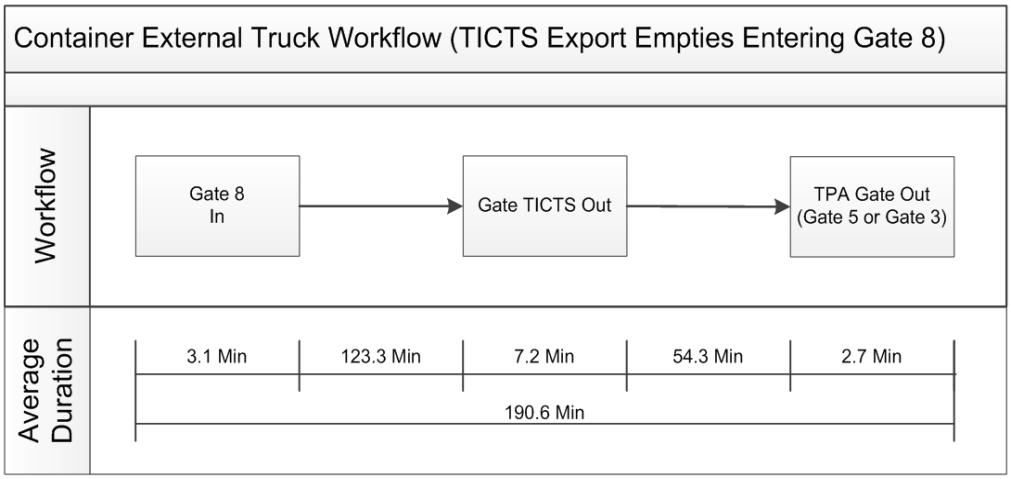


Fig. 3.1 – 10: External Cont. Truck Workflow (TICTS Export Gate 8)
Source: HPC, 2017

However, the loaded export containers have to enter via the TPA area, because they had to be scanned. The total cycle time of trucks delivering loaded export containers to TICTS was nearly 275 minutes (**Fig. 3.1 – 11**).

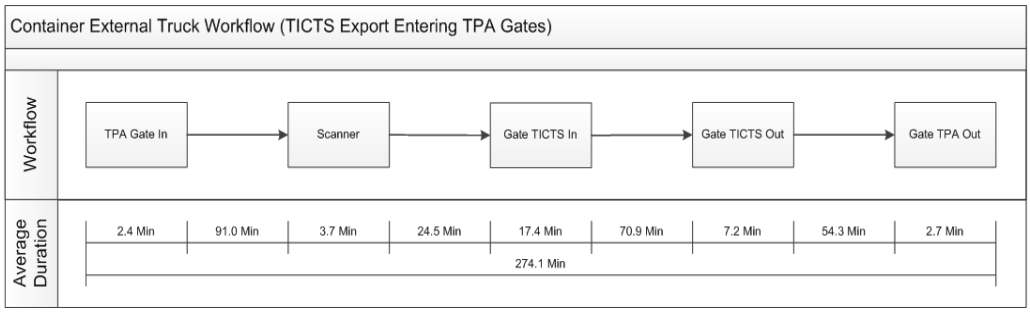


Fig. 3.1 – 11: Ext. Cont. Truck Workflow (TICTS Export TPA Gates)
Source: HPC, 2017

e) Container Scanning

The baseline values for container scanning show that, the overall average time for the scanning process was 68 seconds and the average duration of trucks dwell time at the scanner was 223.

f) Inland Container Depots

The baseline values for the dwell time at the Inland Container Depots (ICDs) were analysed based on data from by TPA as well as from two ICDs. The total average dwell time of a container from unloading from a vessel until delivery to a customer from an ICD was 10.2 days on average. 37% of this time was dwell time inside the port, 4% was the transport from the port to the ICD and the remaining 59% was dwell time in the ICD (**Fig. 3.1 – 12**).

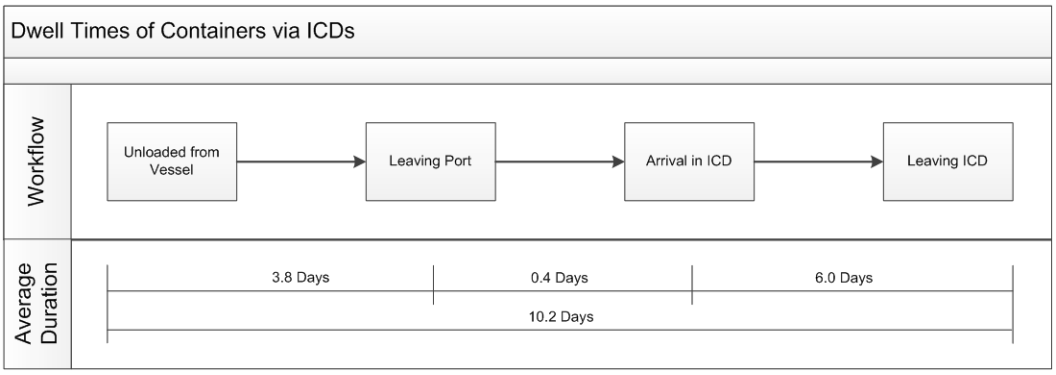


Fig. 3.1 – 12: Workflow of Containers via ICDs
Source: HPC, 2017

g) Gate Performance

At the Port of Dar es Salaam six different gates were used for cargo and were observed during the port performance baseline study. The baseline values for the average gross performances and the average durations per truck were as herein presented (**Table 3.1 – 12**).

Table 3.1 – 12: Gates Productivity

Gate	Direction	Cargo	Average Gross Productivity (Trucks/hour)	Average Duration per Truck (Seconds)
Gate 2	Out	RoRo	24.0	238
Gate 3	In	General Cargo, Containers, Dry Bulk	20.5	104
Gate 3	Out	General Cargo, Containers, Dry Bulk	22.9	112
Gate 4	In	Containers, Dry Bulk	13.2	341
Gate 4	Out	Dry Bulk	6.5	911
Gate 5	Out	Containers	17.9	263
Gate 5 ICD	Out	Containers	11.7	401
Gate TICTS	In	Containers	6.7	1143
Gate TICTS	Out	Containers	24.2	412
Gate 8	In	Containers	19.0	314

3.2 One Stop border Posts (OSBPs)

3.2.1 Tunduma/Nakonde Border Post

a) Traffic Count

The baseline survey for traffic surveys were done in 2018 while subsequent/impact survey done in 2021 after the OSBPs were in place.

i) Traffic Count: Tunduma

Comparison of the traffic volumes between 2018 and 2021 showed that the total traffic volume increased significantly post construction of OSBP at Tunduma border. The total traffic volume recorded from Tanzania to Zambia through Tunduma in 2018 was 303 and in 2021 it was 588 (an increase of 94%) (**Table 3.2 – 1**).

Table 3.2 – 1: Traffic Count: Tunduma

Survey	Year	Buses	Passenger Vehicles	Trucks	Other	Total
Baseline Survey	2018	4	256	40	3	**303**
Impact/Outcome Survey	2021	12	367	190	19	**588**
Change	2018 - 2021	203%	43%	375%	527%	94%

Source: Nick Porée and Associates (Pty) Ltd, July 2018 & Poess Limited in JV with IVX Company Limited, April 2021

ii) Traffic Count: Nakonde

The OSBP at Nakode (Zambia side) is yet to be constructed. Therefore, after the baseline survey done in 2018, the subsequent survey in 2021 was still a baseline survey as the OSBP was yet to be constructed. However, on account

that, Tunduma OSBP was in place, there was spill over effect at Nakode side as well. Comparison analysis between 2018 and 2021 surveys showed that, the total traffic volumes increased by 72% from 508 recorded in 2018 to 873 recorded in 2021 (**Table 3.2 – 2**).

Table 3.2 – 2: Traffic Count: Nakonde

Survey	Year	Buses	Passenger Vehicles	Trucks	Other	Total
Baseline Survey No. 1	2018	6	279	138	85	**508**
Baseline Survey No. 2	2021	4	626	205	38	**873**
Change	2018 - 2021	-37%	124%	49%	-55%	72%

Source: Nick Porée and Associates (Pty) Ltd, July 2018 & Poess Limited in JV with IVX Company Limited, April 2021

b) Time Surveys

The baseline survey for time surveys were done in 2018 while subsequent/impact survey done in 2021 after the OSBPs were in place.

i) Time Survey: Tunduma

Comparative analysis between baseline survey and impact survey at Tunduma OSBP showed that, there was significant reduction in border crossing times for all trucks from 133:09 h:min to 28:28 h:min equivalent to a time saving of 79%. Similarly, construction of OSBP lead to overall time savings or dwell time of 77% and 92% for containerised and tankers trucks respectively (**Table 3.2 – 3**).

Table 3.2 – 3: Time Survey: Tunduma

Survey	Survey	Queue Time (h:mm)	Customs Processing (h:mm)	Total Dwell Time (h:mm)	Time Difference (h:mm)	Time Difference (%)
Baseline Survey	2018 (All Trucks)	70:29:00	62:40:00	133:09:00	0:00:00	0%
	2018 (Containerised)	60:03:00	55:42:00	115:45:00	0:00:00	0%
	2018 (Tankers)	86:53:00	61:41:00	148:34:00	0:00:00	0%
Impact/Outcome Survey	2021 (All Trucks)	27:35:00	0:53:00	28:28:00	104:41:00	79%
	2021 (Containerised)	25:05:00	1:08:00	26:13:00	89:32:00	77%
	2021 (Tankers)	11:15:00	0:33:00	11:48:00	136:46:00	92%
Time Difference (h:mm)	2018-2021 (All Trucks)	42:54:00	61:47:00	104:41:00		
	2018-2021 (Containerised)	34:58:00	54:34:00	89:32:00		
	2018-2021 (Tankers)	75:38:00	61:08:00	136:46:00		
Time Difference (%)	2018-2021 (All Trucks)	61%	99%	79%		
	2018-2021 (Containerised)	58%	98%	77%		
	2018-2021 (Tankers)	87%	99%	92%		

Source: Nick Porée and Associates (Pty) Ltd, July 2018 & Poess Limited in JV with IVX Company Limited, April 2021

ii) Time Survey: Nakonde

Similarly, although the OSBP at Nakonde is yet to be constructed, relatively crossing time during impact survey were improved following construction of OSBP at Tunduma. Comparative analysis between 2018- and 2021-time surveys showed that, there was an overall time savings or dwell time of 52%, 67% and 61% for all trucks, containerised trucks and tankers trucks (**Table 3.2 – 4**).

Table 3.2 – 4: Time Survey: Nakonde

Survey	Survey	Queue Time (h:mm)	Customs Processing (h:mm)	Total Dwell Time (h:mm)	Time Difference (h:mm)	Time Difference (%)
Baseline Survey No. 1	2018 (All Trucks)	61:28:00	16:39	78:07:00	0:00:00	0%
	2018 (Containerised)	65:44:00	4:43	70:27:00	0:00:00	0%
	2018 (Tankers)	56:49:00	34:08:00	90:57:00	0:00:00	0%
Baseline Survey No. 2	2021 (All Trucks)	36:49:00	0:33	37:22:00	40:45:00	52%
	2021 (Containerised)	22:46:00	0:28	23:14:00	47:13:00	67%
	2021 (Tankers)	34:57:00	0:28:00	35:25:00	55:32:00	61%
Time Difference (h:mm)	2018-2021 (All Trucks)	24:39:00	16:06:00	40:45:00		
	2018-2021 (Containerised)	42:58:00	4:15:00	47:13:00		
	2018-2021 (Tankers)	21:52:00	33:40:00	55:32:00		
Time Difference (%)	2018-2021 (All Trucks)	40%	97%	52%		
	2018-2021 (Containerised)	65%	90%	67%		
	2018-2021 (Tankers)	38%	99%	61%		

Source: Nick Porée and Associates (Pty) Ltd, July 2018 & Poess Limited in JV with IVX Company Limited, April 2021

3.2.2 Mutukula Border Post

a) Traffic Count

The baseline survey for traffic surveys were done in 2011 while subsequent/impact survey done in 2016 after the OSBPs were in place.

i) Traffic Count: Mutukula – Uganda

Comparison of the traffic volumes between 2011 and 2016 showed that the total traffic volumes declined. The total number recorded from Tanzania to Uganda through Mutukula (as a Two- stop Border post) in 2011 was 1,557 and in 2016 it was 383 (a decrease of 75%) (**Table 3.2 – 5**).

Table 3.2 – 5: Traffic Count: Mutukula - Uganda

Survey	Year	Buses	Passenger Vehicles	Trucks	Other	Total
Baseline Survey	2011	254	1061	57	185	**1557**
Impact/Outcome Survey	2016	33	166	29	155	**383**
Change	2011 - 2016	-87%	-84%	-49%	-16%	-75%

Source: Nick Porée and Associates (Pty) Ltd, July 2016

ii) Traffic Count: Mutukula -Tanzania

Similarly, comparison of the baseline survey done in 2011 with the impact survey done in 2016 at Mutukula - Tanzania OSBP showed that, the total traffic volumes decreased significantly. The baseline survey in 2011 recorded total traffic volumes of 1,366 whereas in 2016 it was 472, a decrease of 65% (**Table 3.2 – 6**).

Table 3.2 – 4: Traffic Count: Mutukula -Tanzania

Survey	Year	Buses	Passenger Vehicles	Trucks	Other	Total
Baseline Survey	2011	78	903	34	351	**1366**
Impact/Outcome Survey	2016	31	256	40	145	**472**
Change	2011 - 2016	-60%	-72%	18%	-59%	-65%

Source: Nick Porée and Associates (Pty) Ltd, July 2016

b) Time Surveys

The baseline survey for time surveys were done in 2011 while subsequent/impact survey done in 2016 after the OSBPs were in place.

i) Time Survey: Mutukula – Uganda

Comparative analysis between baseline survey and impact survey showed that, there was significant reduction in border crossing times from 45:49 h:min to 8:00 h:min which was equal to a time saving of 83% before and after OSBP construction. This was a very positive sign of the impact of OSBP on border crossing times at Mutukula. However, there was an 86% increase in queue times from 0:49 h:mm to 1:31 h:mm, but it did not impact on the overall time savings or dwell time (**Table 3.2 – 7**).

Table 3.2 – 7: Time Survey: Mutukula - Uganda

Survey	Survey	Queue Time (h:mm)	Customs Processing (h:mm)	Total Dwell Time (h:mm)	Time Difference (h:mm)	Time Difference (%)
Baseline Survey	2011 (Baseline)	0:49:00	44:55:00	45:44:00	0:00:00	0%
Impact/Outcome Survey	2016 (All Trucks)	1:31:00	6:29:00	8:00:00	37:44:00	83%
Time Difference (h:mm)	2011 - 2016	0:42:00	38:26:00	37:44:00		
Time Difference (%)	2011 - 2016	86%	86%	83%		

Source: Nick Porée and Associates (Pty) Ltd, July 2016

ii) Time Survey: Mutukula -Tanzania

Similarly, comparison of the baseline survey done in 2011 with the impact survey done in 2016 at Mutukula - Tanzania OSBP showed that, there was a reduction in border dwell times in 2016 of 5:40 h:mm compared to the baseline study done in 2011 (i.e., a 56% saving in time since the introduction of the OSBP). There was also a significant decrease in the customs processing time of approximately 4 hours (3:59 h:mm) (**Table 3.2 – 8**).

Table 3.2 – 8: Time Survey: Mutukula -Tanzania

Survey	Survey	Queue Time (h:mm)	Customs Processing (h:mm)	Total Dwell Time (h:mm)	Time Difference (h:mm)	Time Difference (%)
Baseline Survey	2011 (Baseline)	2:20:00	7:52:00	10:12:00	0:00:00	0%
Impact/Outcome Survey	2016 (All Trucks)	0:39:00	3:53:00	4:32:00	5:40:00	56%
Time Difference (h:mm)	2011 - 2016	1:41:00	3:59:00	5:40:00		
Time Difference (%)	2011 - 2016	72%	51%	56%		

Source: Nick Porée and Associates (Pty) Ltd, July 2016

3.2.3 Kabanga/Kobero Border Post

a) Traffic Count

The baseline survey for traffic surveys were done in 2011 while subsequent/impact survey done in 2016 after the OSBPs were in place.

i) Traffic Count: Kobero - Burundi

Comparison of the traffic volumes between 2011 and 2016 showed that the total traffic volumes increased overall from 438 to 757 (73%). Composition of the traffic flow also changed significantly. There was a large increase in passenger vehicle volumes, both buses and light vehicles, in both directions.

The total number of passenger vehicles recorded in 2011 from Tanzania to Burundi through Kabanga/Kobero (as a Two-stop Border post) was 166, and in 2016 it was 426 (an increase of 157%) (**Table 3.2 – 9**).

Table 3.2 – 9: Traffic Count: Kobero - Burundi

Survey	Year	Buses	Passenger Vehicles	Trucks	Other	Total
Baseline Survey	2011	3	166	169	100	438
Impact/Outcome Survey	2016	20	426	185	126	757
Change	2011 - 2016	567%	157%	9%	26%	73%

Source: Nick Porée and Associates (Pty) Ltd, July 2016

ii) Traffic Count: Kabanga - Tanzania

Similarly, comparison of the baseline survey done in 2011 with the impact survey done in 2016 at Kabanga OSBP showed that, the total traffic volumes increased significantly. In 2011 the total traffic volumes were 391 and in 2016 it was 697, an increase of 78%. This was largely due to the increase in passenger traffic from 174 in 2011 to 441 in 2016, (153%) (**Table 3.2 – 10**).

Table 3.2 – 10: Traffic Count: Kabanga - Tanzania

Survey	Year	Buses	Passenger Vehicles	Trucks	Other	Total
Baseline Survey	2011	5	174	150	62	391
Impact/Outcome Survey	2016	8	441	150	106	697
Change	2011 - 2016	60%	153%	0%	71%	78%

Source: Nick Porée and Associates (Pty) Ltd, July 2016

b) Time Surveys

The baseline survey for time surveys were done in 2011 while subsequent/impact survey done in 2016 after the OSBPs were in place.

i) Time Survey: Kobero - Burundi

Comparative analysis between baseline survey and impact survey showed that, there was significant reduction in the combined border crossing times for containerised cargo and tankers from 11:56 (h:mm) to 8:48 (h:mm) i.e., a time saving of 26%. This was a very positive sign of the impact that the OSBP on cross-border delays at Kobero. In the baseline survey the times for containerised and tankers were 12:09 (h:mm) and 11:46 (h:mm) respectively. Analysis on the processing time showed that there was a 68% saving in the tanker times and a 26% saving in the times for containerised cargo. The faster processing of tankers is a positive development as it means that tankers (which carry a high risk or dangerous commodities) were being processed quickly

through the border, thereby contributing to desirable safety improvements from the OSBP (**Table 3.2 – 11**).

Table 3.2 – 11: Time Survey: Kobero - Burundi

Survey	Survey	Queue Time (h:mm)	Customs Processing (h:mm)	Total Dwell Time (h:mm)	Time Difference (h:mm)	Time Difference (%)
Baseline Survey	2011 (Baseline)	2:14:00	9:42:00	11:56:00	0:00	0%
	2011 (Containerised)	1:45:00	10:24:00	12:09:00	0:00	0%
	2011 (Tankers)	2:48:00	8:58:00	11:46:00	0:00	0%
Impact/Outcome Survey	2016 (All Trucks)	1:53:00	6:55:00	8:48:00	3:08	26%
	2016 (Containerised)	0:26:00	8:55:00	9:21:00	2:48	23%
	2016 (Tankers)	0:09:00	3:40:00	3:49:00	7:57	68%
Time Difference (h:mm)	2011-2016 (All Trucks)	0:21:00	2:47:00	3:08:00		
	2011-2016 (Containerised)	1:19:00	1:29:00	2:48:00		
	2011-2016 (Tankers)	2:39:00	5:18:00	7:57:00		
Time Difference (%)	2011-2016 (All Trucks)	16%	29%	26%		
	2011-2016 (Containerised)	75%	14%	23%		
	2011-2016 (Tankers)	95%	59%	68%		

Source: Nick Porée and Associates (Pty) Ltd, July 2016

ii) Time Survey: Kabanga - Tanzania

The 2016 survey showed a reduction of 4 hours 40 minutes in border dwell times for all trucks, compared with the baseline study done in 2011. This was a 58% saving in time as a result of developing the OSBP. The customs processing time also showed a decrease of approximately 4 hours 24 minutes or 59%. This exceeded the TMEA target improvement of a 30% reduction and is an indication that the OSBP at Kabanga was working well, and achieving its objectives (**Table 3.2 – 12**).

Table 3.2 – 12: Time Survey: Kabanga - Tanzania

Survey	Survey	Queue Time (h:mm)	Customs Processing (h:mm)	Total Dwell Time (h:mm)	Time Difference (h:mm)	Time Difference (%)
Baseline Survey	2011 (Baseline)	0:39:00	7:26:00	8:05:00	0:00	0%
	2011 (Containerised)	1:01:00	12:19:00	13:20:00	0:00	0%
Impact/Outcome Survey	2016 (All Trucks)	0:23:00	3:02:00	3:25:00	4:40	58%
	2016 (Containerised)	0:50:00	5:57:00	6:47:00	6:33	49%
Time Difference (h:mm)	2011-2016 (All Trucks)	0:16:00	4:24:00	4:40:00		
	2011-2016 (Containerized)	0:11:00	6:22:00	6:33:00		
Time Difference (%)	2011-2016 (All Trucks)	41%	59%	58%		
	2011-2016 (Containerized)	18%	52%	49%		

Source: Nick Porée and Associates (Pty) Ltd, July 2016

3.2.4 Holili/Taveta Border Post

a) Traffic Count

The baseline survey for traffic surveys were done in 2011 while subsequent/impact survey done in 2015 after the OSBPs were in place.

i) Traffic Count: Holili

Comparison of the traffic volumes between 2011 and 2015 showed that the total traffic volumes at the OSBP were more or less unchanged. The number recorded in 2011 from Kenya to Tanzania through Taveta/Holili (as a Two-stop Border post) was 507 and in 2015 it was 537 (an increase of 6%). There were however, a significant change in vehicle categories recorded at the border. In 2011 a total of 91 Trucks crossed into Tanzania in 2011 compared to 145 in 2015, (an increase of 59%), Buses increased by 53%, passenger vehicles increased by 77%. It is however very evident that the differences were due to classification as the category "Other" dropped from 194 to 10 or by 95% (**Table 3.2 – 13**).

Table 3.2 – 13: Traffic Count: Holili

Survey	Year	Buses	Passenger Vehicles	Trucks	Other	Total
Baseline Survey	2011	47	175	91	194	**507**
Impact/Outcome Survey	2015	72	310	145	10	**537**
Change	2011 - 2015	53%	77%	59%	-95%	6%

Source: Nick Porée and Associates (Pty) Ltd, October 2015

ii) Traffic Count: Taveta

Similarly, comparison of the baseline survey done in 2011 with the impact survey done in 2015 at Taveta OSBP showed that, the total traffic volumes were more or less unchanged i.e., in 2011 the total traffic volumes were 434 and in 2015 it was 492 or an increase of 13%. Similar, to Holili OSBP, the marginal increase in traffic were due to the category "Other" which dropped by 100% from 105 to zero (**Table 3.2 – 14**).

Table 3.2 – 14: Traffic Count: Taveta

Survey	Year	Buses	Passenger Vehicles	Trucks	Other	Total
Baseline Survey	2011	33	243	53	105	**434**
Impact/Outcome Survey	2015	90	252	150	0	**492**
Change	2011 - 2015	173%	4%	183%	-100%	13%

Source: Nick Porée and Associates (Pty) Ltd, October 2015

b) Time Surveys

The baseline survey for time surveys were done in 2011 while subsequent/impact survey done in 2015 after the OSBPs were in place.

i) Time Survey: Holili

Comparative analysis between baseline survey and impact survey showed that, there was an overall improvement of 6:44 hours (25%) since the OSBP has gone operational, compared to the baseline survey in 2011. On the other hand, the containerised cargos were clearly highlighted as being a problem area with a total dwell time of 49:48 hours to cross the border as opposed to 26:57 hours recorded in 2011. This is an increase of 22:51 hours (i.e., 85%) (**Table 3.2 – 15**).

Table 3.2 – 15: Time Survey: Holili

Survey	Survey	Queue Time (h:mm)	Customs Processing (h:mm)	Total Dwell Time (h:mm)	Time Difference (h:mm)	Time Difference (%)
Baseline Survey	2011	7:53:00	19:04:00	26:57:00	0:00	0%
Impact/Outcome Survey	2015 (All Trucks)	6:41:00	13:32:00	20:13:00	6:44:00	25%
	2015 (Containerized)	3:44:00	46:04:00	49:48:00	22:51:00	85%
Time Difference (h:mm)	2011-2015 (All Trucks)	1:12:00	5:32:00	6:44:00		
	2011-2015 (Containerized)	4:09:00	27:00:00	22:51:00		
Time Difference (%)	2011-2015 (All Trucks)	15%	29%	25%		
	2011-2015 (Containerized)	53%	142%	85%		

Source: Nick Porée and Associates (Pty) Ltd, October 2015

ii) Time Survey: Taveta

The 2015 survey at Taveta OSBP showed a significant time savings of 5:23 hours and 5:41 hours in border dwell times for all trucks (combined tankers and containerised cargo trucks) and containerised cargos respectively. This was 82% and 86% saving in time as a result of developing the OSBP for all trucks and containerised cargo trucks respectively. However, the 2015 impact survey identified that, the good performance of Taveta OSBP were a result of the fact that a large proportion of vehicles passing through Taveta are empty returns (i.e., 89 out of 150 trucks surveyed (59%)). This clearly influenced the customs processing time and total dwell time at the Taveta OSBP (**Table 3.2 – 16**).

Table 3.2 – 16: Time Survey: Taveta

Survey	Survey	Queue Time (h:mm)	Customs Processing (h:mm)	Total Dwell Time (h:mm)	Time Difference (h:mm)	Time Difference (%)
Baseline Survey	2011	1:56:00	4:40:00	6:36:00	0:00	0%
Impact/Outcome Survey	2015 (All Trucks)	0:27:00	0:46:00	1:13:00	5:23:00	82%
	2015 (Containerized)	0:31:00	0:24:00	0:55:00	5:41:00	86%
Time Difference (h:mm)	2011-2015 (All Trucks)	1:29:00	3:54:00	5:23:00		
	2011-2015 (Containerized)	1:25:00	4:16:00	5:41:00		
Time Difference (%)	2011-2015 (All Trucks)	77%	84%	82%		
	2011-2015 (Containerized)	73%	91%	86%		

Source: Nick Porée and Associates (Pty) Ltd, October 2015

4.0 FINDINGS: THE PORT OF DAR ES SALAAM

4.1 TPA Traders Survey

4.1.1 Description of Respondents

Firm Size, Structure and Ownership Disaggregated by Gender

In the Port of Dar es Salaam, 21 traders using the port were interviewed. Most of these traders have been in business for at least 10 years (66.7%). This implies that, at least majority of traders have adequate experience in the sector. The survey shows that most of these businesses are small to medium size (42.9%). All of these businesses operate as partnership and/or limited liability companies mostly run by men (76.2%) (**Table: 4.1 - 1 & 2 and Fig: 4.1 – 1 & 2).**

Table: 4.1 – 1: Firm Size Vs Year of Establishment

Year of Establishment	Firm Size	Respondent	Percent	Total Respondent	Establishment Proportion
3 - 5 Years	Micro (<5)	1	4.8%	1	4.8%
5 - 10 Years	Micro (<5)	1	4.8%	6	28.6%
	Small (5-19)	4	19.0%		
	Large (>100)	1	4.8%		
> 10 Years	Micro (<5)	1	4.8%	14	66.7%
	Small (5-19)	5	23.8%		
	Medium (20-99)	4	19.0%		
	Large (>100)	4	19.0%		
Grand Total		**21**	**100.0%**	**21**	**100%**

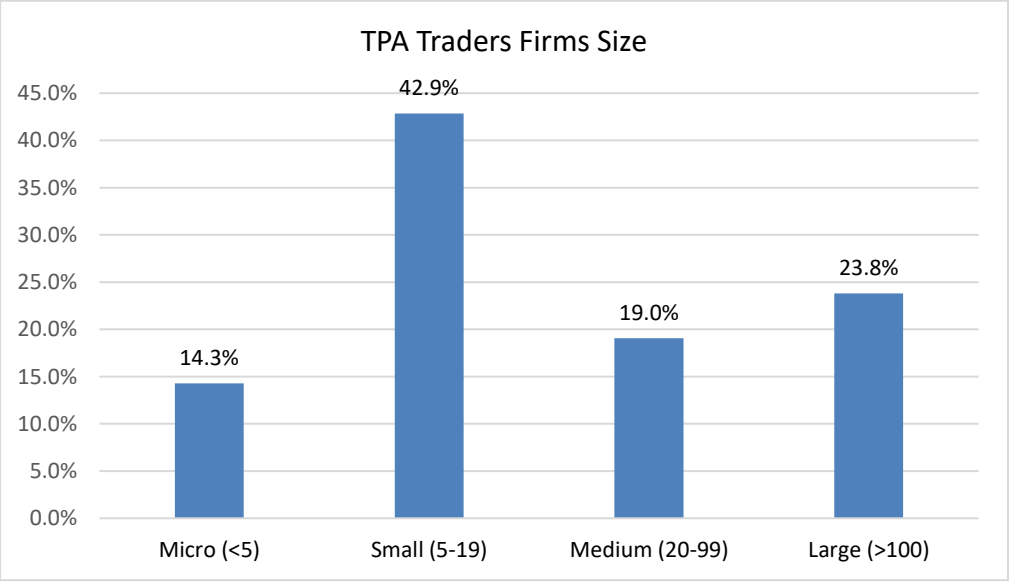


Fig. 4.1 – 1: TPA Traders Firm Size

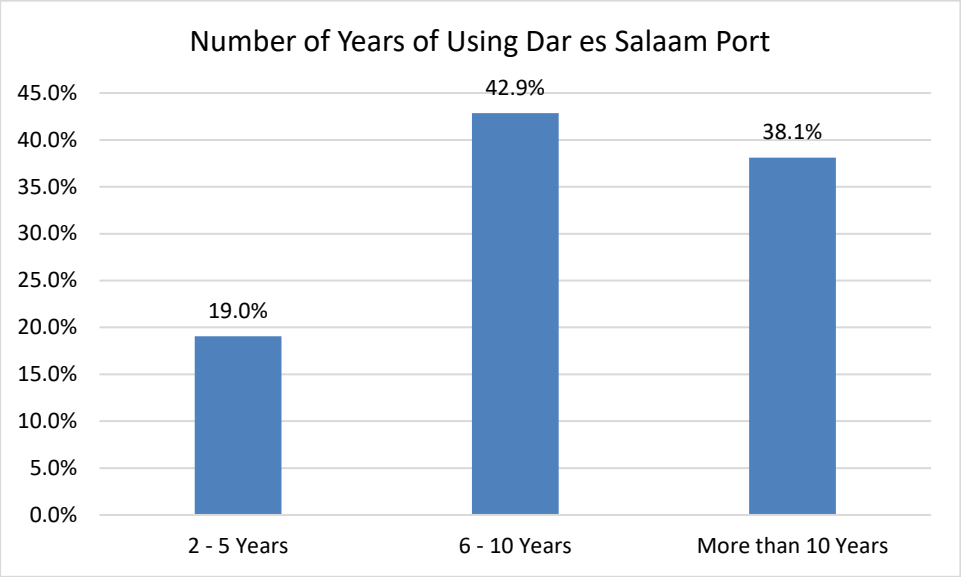


Fig. 4.1 – 2: TPA Traders Number of Years of Using the Port of Dar es Salaam

Table: 4.1 – 2: Firm Structure and Ownership Disaggregated by Gender

Business Ownership Structure	Gender of the Firm Owner	Respondent	Percent
Owned by more than one person	Equal number of Female and Male	1	4.8%
	Majority are female	4	19.0%
	Majority are Male	16	76.2%
Grand Total		**21**	**100.0%**

Traders' Sector of Business

The survey shows that, most of the TPA traders interviewed engage in businesses of manufacturing and agriculture and services subsectors which account for 38.1%, and 23.8% respectively. Other subsectors include none retail and others (i.e., pharmaceuticals and retail of vehicles) (**Fig. 4.1 – 3**).

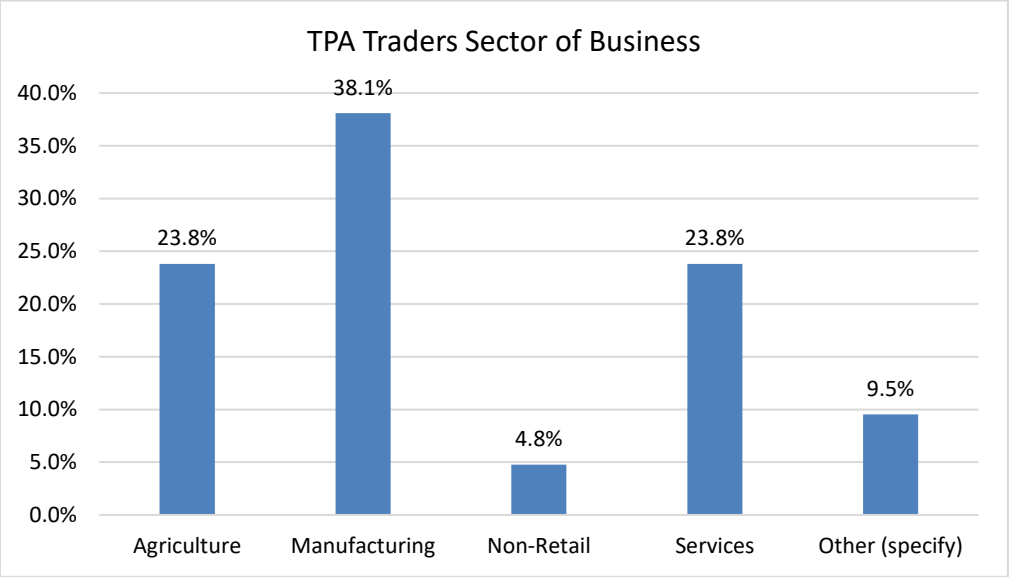


Fig. 4.1 – 3: Traders Sector of Business

Traders Line of Business

The survey results show that, most of the TPA traders interviewed are in the line of business of importation (36.4%). Export ranks second at 22.7% followed by manufacturing and whole sale at 20.5% and 15.9% respectively (**Fig. 4.1 – 4**).

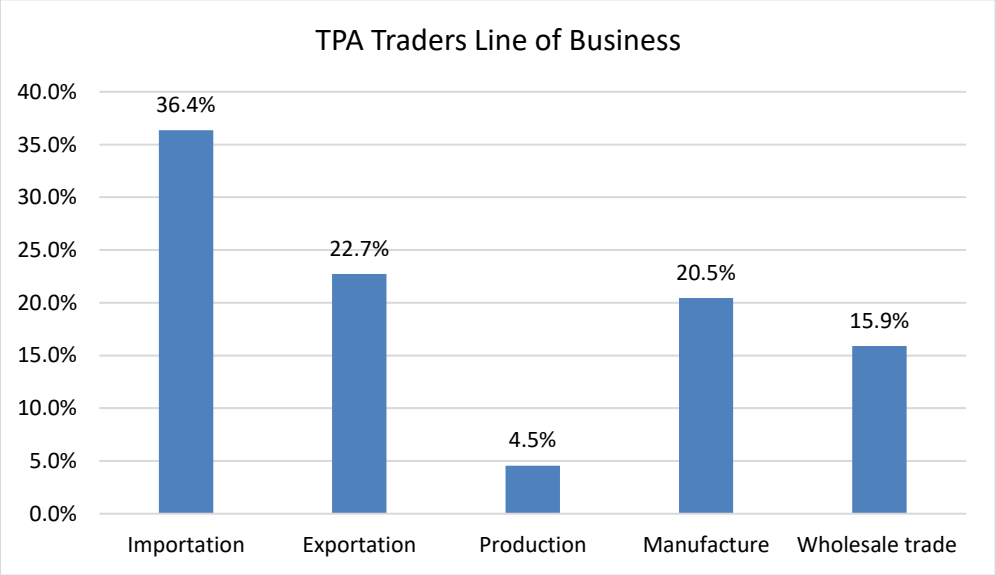


Fig. 4.2 – 2: TPA Traders Line of Business

4.1.2 Level of Satisfaction with Port Improvement Interventions

The survey indicates that, TPA traders are generally satisfied (average satisfaction rate of 72.4%) with congestion reduction at the port, time taken for documentary clearance of goods, import/export procedures, cost of using

the port and access roads improvements to gate 4, 5 and 8 at the port of Dar es Salaam. Neutral rating accounts for an average of 17.1% which indicate that traders have not seen a difference in port improvement. Dissatisfaction rating is also reported at an average of 10.5% signifying there is more improvement needed in terms of port performance. This can be a result of the fact that only about 40% of the improvement recommendations are implemented (**Table: 4.1 – 3 and Fig. 4.1 – 5**).

Table: 4.1 – 3: Level of Satisfaction with the Port Improvement Interventions

Satisfaction Criteria	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
Satisfied with congestion reduction	38.1%	33.3%	19.0%	9.5%	0.0%
Satisfied with the time taken for documentary clearance for goods	33.3%	28.6%	19.0%	19.0%	0.0%
Satisfied with the import/export procedures	42.9%	38.1%	14.3%	4.8%	0.0%
Satisfied with the cost of using the Port	28.6%	47.6%	19.0%	4.8%	0.0%
Satisfied with the access roads to gate No. 4, 5 and 8 at the Port	23.8%	47.6%	14.3%	14.3%	0.0%
Overall Satisfaction (Average)	33.3%	39.0%	17.1%	10.5%	0.0%

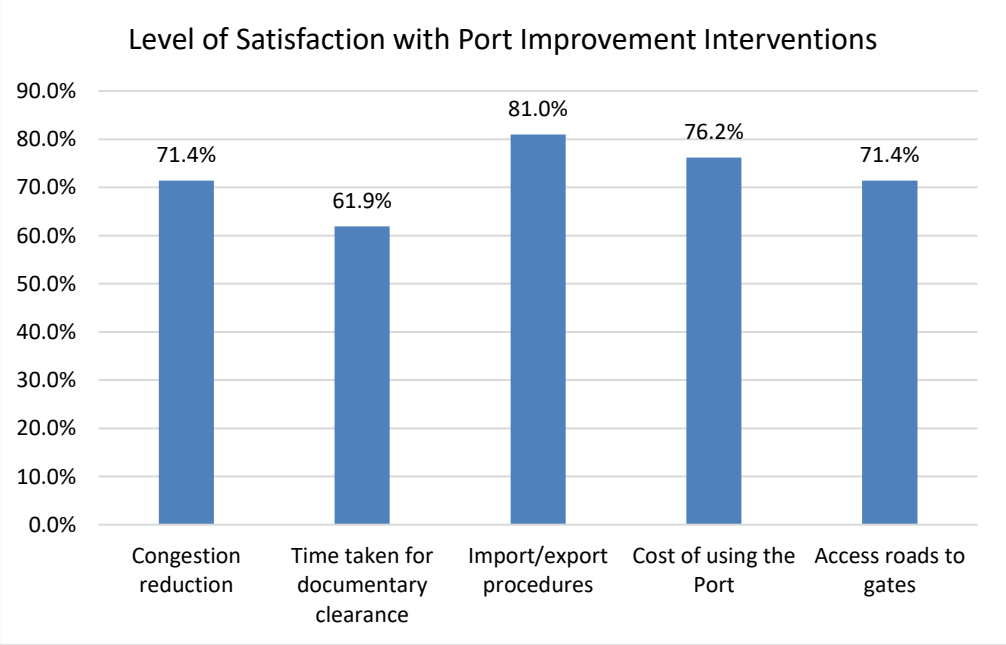


Fig. 4.1 – 5: Level of Satisfaction with Port Improvement Interventions

4.2 Impact/Outcome Assessment

4.2.1 Impact/Outcome on Business Competitiveness

The impact/outcome of port improvement in terms of business competitiveness is yet to be done. However, the baseline survey was conducted in October and November 2016 to assess and propose measures to improve the Performance of the Port. As discussed in chapter three above, the results for marine services, results of the observation of cargo operations for each type of cargo and the results for clearance and customs were presented. Following such results, recommendations for performance improvements were made. Following consultations with TPA officials on the implementation status of the recommendations, revealed that, out of 51 recommendations, only 20 recommendations are fully implemented so far (i.e., about 40%). It was pointed out further that, the slow implementation of port improvement/modernisation recommendations resulted from the expiry of Memorandum of Understanding (MoU) between TMEA and TPA as a result some of the recommendations have been implemented under the Dar es Salaam Maritime Gateway Project (DMGP) and few others through TPA. The outcome of the implemented recommendations in terms of business competitiveness are presented in **Table 4.2 – 1 (Annex 4.2 – 1)**.

Table 4.2 – 1: Impact/Outcome of the Implemented Recommendations

S/N	Proposed Intervention	Impact/Outcome of the Implemented Intervention
1	Dredging of berths to design water depth to allow larger vessels at berths and to avoid shifting	i) Initially there were only 1 berth with draft of 11m (i.e., berth No. 7). Following dredging now all berth 1 – 7 have draft of 14.5m ii) No shifting of vessels. iii) Savings in costs associated with shifting of vessels (i.e., for pilots) and demurrage charges which were borne to TPA iv) Heavy vessels can dock v) Reduction in time at berth i.e., from at least 10 days to a maximum of 7days for general cargo vessels
2	Procure new TTUs, so that minimum 4 TTUs can be assigned to 1 MHC	i) Container congestion reduced ii) RoRo yard was also used for containers now only cars
3	Paint markings for stacks in Container Yard areas	i) Easy to manage traffic flow and parking. ii) Operations improved and accidents reduced. iii) Reduced time for tracing containers
4	Demolish waterside sheds along berths 5 - 7	i) Adequate space for containers stacking for Berth 5 – 7 obtained ii) Reduction of days of operations from up to 10 days due to double handling to 1 – 2 days due to

S/N	Proposed Intervention	Impact/Outcome of the Implemented Intervention
		increased space
5	Complete reconstruction of Gate 5	i) Reduced congestion for trucks at the gate. ii) Improved traffic flow due to separation of gate for trucks entering and those exiting the port.
6	Reorganize TICTS traffic management scheme to decongest the TICTS approaches and exits.	i) Reduced congestion for trucks to TICTS ii) Improved traffic flow for trucks to be scanned by introduction of gate 4A instead of gate 5 only iii) Entrance of trucks through gate 4B became possible after widening. iv) Interfacing of weighbridge made it possible for trucks to enter and exit through different gates (i.e., enter through gate 4A and exit through gate 3 or 5)
7	Reduction of operational delays at berths	i) No operational delays at berths ii) Increased vessels turnaround time
8	Procurement of triple mast forklift trucks and pallets for handling and storage of bagged cargoes	i) No operational delays at berths ii) Handling capacity and storage of bagged cargoes has increased. Up to 7 clients can be attended at per while initially maximum 2 clients at a time were able to be attended
9	Allocation of additional storage areas for vehicles (RoRo)	i) Improved traffic flow at the berth operational area ii) No delays for clearance, accidents and damage. iii) Increased efficiency in car offloading from 55 cars/hour to 66-67 cars/hour
10	Reduce berthing idle times	
11	Increase Productivity at Liquid Bulk facilities	i) Flow meters increased from 5 to 12 and modernized ii) Each product has its own meter with spare so in case of maintenance operation can still continue iii) Accuracy has increased so conflicts on measurement discrepancies has been reduced.
12	Adoption of One Stop Center (OSC)	i) Reduced bureaucracy in documentation processing ii) Reduced documents processing delays iii) Increased security of cash to clients/customers

Source: TPA, 2022

4.2.2 Impact/Outcome on Women Enterprises

Benefits to women enterprises is an obvious and expected results/outcome of any infrastructure project(s), port improvement interventions inclusive. Increased port throughput would entail more casuals at the port, more drivers and more clearing agents who would require basic services mostly

offered by women enterprises i.e., food, beverages and accommodation. However, the assessment of benefits of the port improvement interventions to women were not undertaken on account that, most of the key interventions are still in progress. Nevertheless, women enterprises especially food venders are likely to benefit a lot from customers using the port of Dar es Salaam especially the truck drivers, clearing agents and various casual labourers at the port as port throughput increases following improvement interventions.

4.2.3 Impact/Outcome on Auxiliary Benefits of the Port Improvements

Increased Government Revenue

Similar to benefits to women enterprises, it's premature to assess the impact/outcome of the port improvement interventions on government revenue. This is on the basis that, the improvement recommendations are just implemented at 40% and the key ones are still in progress i.e., the dredging work.

Job Creation, Products Price Changes and Improved Livelihood of the Surrounding Community

Stakeholders' consultations show that that the port improvement will have wider impact to the Dar es Salaam and neighbouring countries. Although, it is too early to realise such impacts/outcome as most of the improvements are still in progress, in terms of employment, TPA and TICTS are likely to experience reduced number of staff due to technological improvement, as well due to most of the port workers have now attained retirement age to be replaced by a younger trained cadre i.e., data entry, stevedores, operators, trailer where the overall staff mainly for general cargo attendance will no longer be needed. However, the port improvement is likely to increase employment to Clearing Agents to which many women have joined the fraternity, due to increased port throughputs. This will go hand in hand with increased employment opportunity to drivers (transporters).

Likewise, although it's too early and the fact that, there were no baseline data on product prices, the ongoing port improvement/modernisation is going to reduce the cost of imports/exports due to improved port efficiency. This in turn is likely to be reflected into the reduced price of products imported/exported via the port of Dar es Salaam.

Discussions with the community around show also that, livelihood is also projected to improve significantly as the port is modernised due to increased income from food venders, guest houses, bars, and transport services i.e., boda-bodas, and taxis.

4.3 Correlation between Improved Infrastructure and Import/Export Volumes

As discussed herein, the improvement recommendations are just implemented at 40% and the key ones are still in progress i.e., the dredging work. In view of the aforementioned, it is premature to assess the correlation between improved infrastructure and import/export volume, as the impact of the remaining 60% would have extended to bring more business to the Port of Dar es Salaam for a wider regional cascade of business across member states.

4.4 Key Challenges that Impact Port Operation Efficiencies and the Way Forward

There are key challenges that impact the Port of Dar es Salaam operations efficiency. Discussion with TPA officials and other key stakeholders recommended improvement/provision of the following facilities/services to improve productivity:

i) Limited number of Container berths: Relocate KOJ from Kurasini to Mbwamaji so that berth number 12 – 15 can be constructed;
ii) Low efficiency in port operations due to low level of independence: Introduce business units for all terminals;
iii) Port congestions due to limited space at the port: Reinstate ICDs as extension to the port for container storage as well as for Motor Vehicles (ICDMV) to cater for imported vehicles to reduce port congestion;
iv) Dedicate the Kwala Dry Port to handle Transit Containers, hence provide more room in the Port;
v) Limited car parking space: Construct of multi storey car parking complex; and
vi) Absence of cruise ship terminal: Construct a dedicated cruise ship terminal to avoid sharing with cargo berth/terminals.

5.0 FINDINGS: TUNDUMA/NAKONDE OSBP

5.1 Tunduma OSBP Traders Survey

5.1.1 Description of Respondents

Firm Size, Structure and Ownership Disaggregated by Gender

At Tunduma OSBP, 12 traders using the border were interviewed. Most of these traders have been in business for at least 10 years (75.0%) and have been using the border for more than 10 years (66.7%). This implies that, at least majority of traders have adequate experience in the sector. The survey shows that most of these businesses are small to large size (66.7%). All of these businesses operate as partnership and/or limited liability companies mostly run by men (66.7%) (**Table: 5.1 - 1 & 2 and Fig: 5.1 – 1 & 2).**

Table: 5.1 – 1: Firm Size Vs Year of Establishment

Year of Establishment	Firm Size	Respondent	Percent	Total Respondent	Establishment Proportion
3 - 5 Years	Micro (<5)	1	8.3%	1	8.3%
5 - 10 Years	Medium (20-99)	2	16.7%	2	16.7%
> 10 Years	Small (5-19)	5	41.7%	9	75.0%
	Medium (20-99)	1	8.3%		
	Large (>100)	3	25.0%		
Grand Total		**12**	**100.0%**	**12**	**100%**

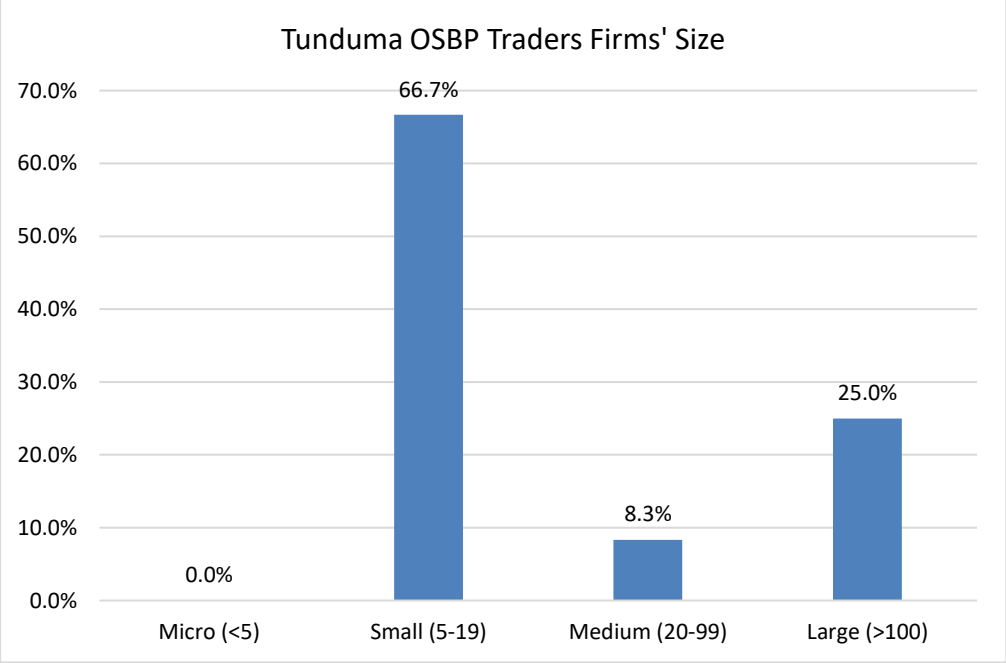


Fig. 5.1 – 1: Tunduma OSBP Traders Firm Size

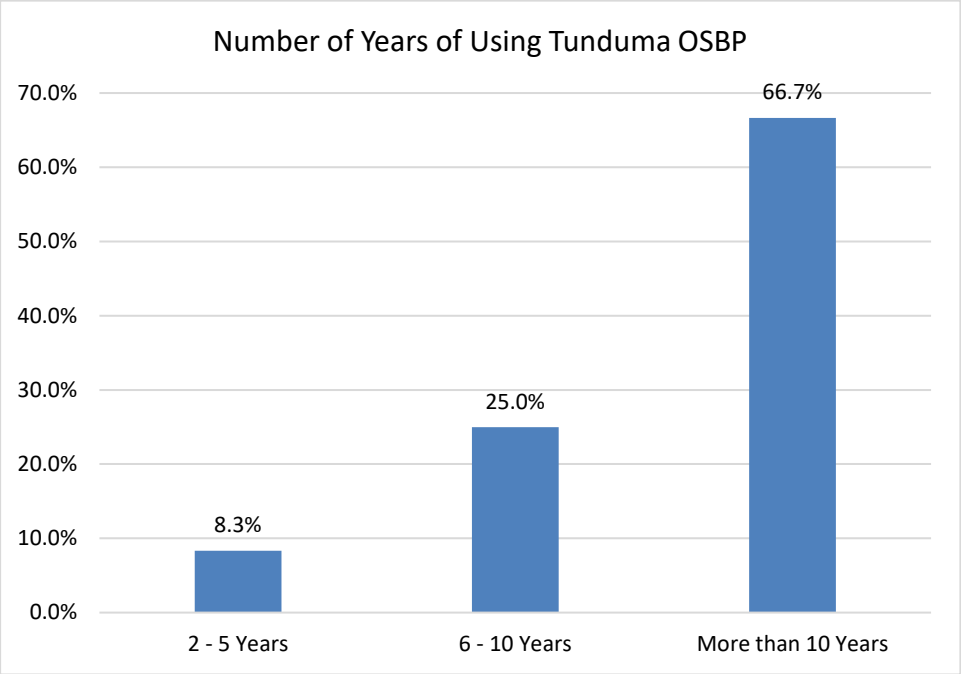


Fig. 5.1 – 2: Tunduma OSBP Traders Number of Years of Using the Border

Table: 5.1 – 2: Firm Structure and Ownership Disaggregated by Gender

Business Ownership Structure	Gender of the Firm Owner	Respondent	Percent
Owned by more than one person	Majority are female	4	33.3%
	Majority are Male	8	66.7%
Grand Total		**12**	**100.0%**

Traders' Sector of Business

The survey shows that, most of the Tunduma OSBP traders interviewed engage in businesses of manufacturing and services subsectors which account for 50%, and 25% respectively. Other subsectors include agriculture and production (**Fig. 5.1 – 3**).

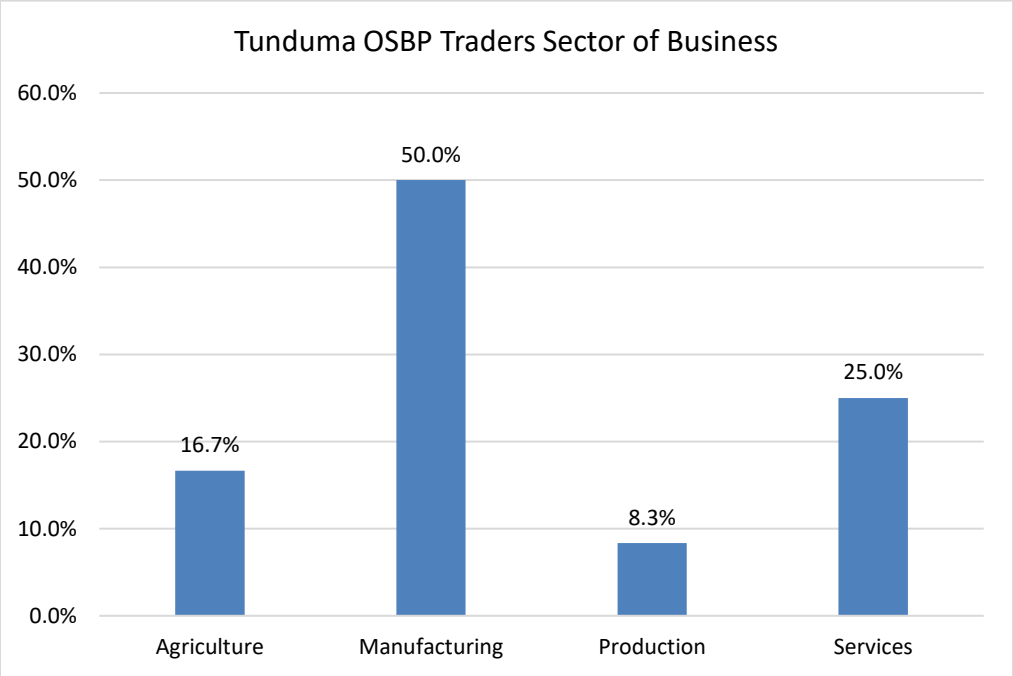


Fig. 5.1 – 3: Tunduma OSBP Traders Sector of Business

Traders Line of Business

The survey results show that, most of the Tunduma OSBP traders interviewed are in the line of business of exportation (34.4%). Importation ranks second at 25.0% followed by wholesale and manufacturing at 18.8% and 15.6% respectively (**Fig. 5.1 – 4**).

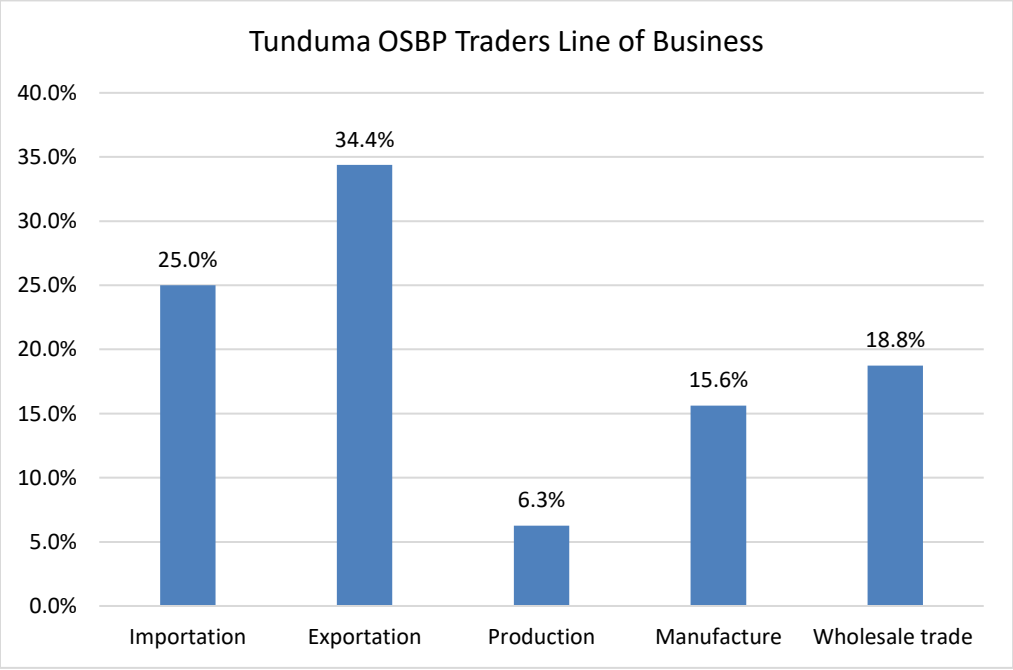


Fig. 5.2 – 2: Tunduma OSBP Traders Line of Business

5.1.2 Level of Satisfaction Following Construction of the OSBP

The survey indicates that, Tunduma OSBP traders are generally satisfied (overall average satisfaction rate of 82.1%) with the OSBP facilities, clearance procedures and cost of using the facility. However, users had some concerns about the clearance procedures especially on the Nakonde/Zambian side which in turn impacts Tunduma OSBP. The OSBP does not really perform to the true objectives of cross-border OSBP, which is supposed to be under one roof control housing border agencies from across the two countries, but this is not the case with cargo clearance. The Consultant point on the weakness due to non-interface between TRA and Zambia Revenue Authority (ZRA) Customs Software, which necessarily each transaction requires a trader to lodge fresh filing of border clearance documents, to process the transit shipment across the border as a trader exit to the next. However, the immigration of the two countries practice OSBP principles to a lesser level. The EAC member countries have successfully attained a full implementation of the OSBP principles because of the East African Community Customs Management Act (EACMA) protocols.

Neutral rating accounts for an average of 12.6% which indicate that traders have not seen a difference in border improvement. Dissatisfaction rating is also reported at an average of 5.3% signifying there is more improvement needed especially on disabled facilities, HIV signs, joint examination, documentation and toilet facilities amongst others. During stakeholders' consultations it was reported that, documentation process is mostly impacted by system downtime thus creating unnecessary delays (**Table: 5.1 – 3**).

Table: 5.1 – 3: Level of Satisfaction with the Port Improvement Interventions

Satisfaction Criterias	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
Satisfaction with the time taken for documentary clearance for goods	41.7%	50.0%	0.0%	8.3%	0.0%
Satisfaction with the import/export procedures	41.7%	58.3%	0.0%	0.0%	0.0%
Satisfaction with the cost of using the border	33.3%	58.3%	8.3%	0.0%	0.0%
How satisfied are you with the facilities at the border	58.3%	25.0%	8.3%	8.3%	0.0%
Satisfaction with the joint examination	25.0%	41.7%	25.0%	8.3%	0.0%
Satisfaction with the decreased service time	25.0%	66.7%	0.0%	8.3%	0.0%
Satisfaction with the changes in security	41.7%	41.7%	16.7%	0.0%	0.0%
Satisfaction with the search by gender	50.0%	41.7%	8.3%	0.0%	0.0%
Satisfaction with the cleanliness	50.0%	33.3%	16.7%	0.0%	0.0%
Satisfaction with the toilets for males/females	41.7%	50.0%	0.0%	8.3%	0.0%
Satisfaction with the warehouse facilities	41.7%	33.3%	25.0%	0.0%	0.0%
Satisfaction with the signage	50.0%	33.3%	8.3%	8.3%	0.0%
Satisfaction with the parking facilities	33.3%	50.0%	16.7%	0.0%	0.0%
Satisfaction with the separation of passengers and goods	41.7%	33.3%	16.7%	8.3%	0.0%
Satisfaction with the HIV signs	18.2%	54.5%	18.2%	9.1%	0.0%
Satisfaction with the disabled facilities	25.0%	25.0%	33.3%	16.7%	0.0%
Overall level of satisfaction	**38.6%**	**43.5%**	**12.6%**	**5.3%**	**0.0%**

5.1.3 User Perceptions on the Business Competitiveness

The survey shows that, Tunduma OSBP traders generally agree (overall average perception rate of 83.8%) that there is improved business competitiveness at firm level following construction of OSBP. The key business competitive elements reported here include amongst others easy coordination of border agencies via the lead agency (TRA), increased transport turnaround time, increased trading volume, improved safety and security of goods and improved joint problem-solving collaborations amongst traders. Neutral rating accounts for an average of 16.2% which indicate that traders have not seen a difference in terms of improved business competitiveness following construction of OSBP. However, there were no trader who agreed that, there have not been improvement in business competitiveness at firm levels, this perhaps is due to their uninformed position on how really an OSBP is required to function in relation to easing up cross-border transactions. This justifies that, despite the marginal neutral rating, traders agree that, business competitiveness have generally improved comparatively of the past years when it was an overwhelmed process to clear at the borders, with poor infrastructure, now improved following the construction of Tunduma OSBP (**Table: 5.1 – 4**).

Table: 5.1 – 4: User Perceptions on the Improved Business Competitiveness

User Perception	Strongly Agree	Agree	Moderately Agree	Disagree	Strongly Disagree
There is easy coordination of border agencies	50.0%	41.7%	8.3%	0.0%	0.0%
There is an increased transport turnaround time	41.7%	33.3%	25.0%	0.0%	0.0%
Sales are more compared to previous (trading volumes have increased)	66.7%	16.7%	16.7%	0.0%	0.0%
Trading are now simplified	33.3%	33.3%	33.3%	0.0%	0.0%
Business have improved	50.0%	25.0%	25.0%	0.0%	0.0%
Better profits margins are realized	33.3%	41.7%	25.0%	0.0%	0.0%
Business operation costs are reduced	41.7%	58.3%	0.0%	0.0%	0.0%
Simplified access to inputs is enjoyed	50.0%	33.3%	16.7%	0.0%	0.0%
Transfer of technology, knowledge and skills have improved	66.7%	25.0%	8.3%	0.0%	0.0%
There an increased price fairness	33.3%	58.3%	8.3%	0.0%	0.0%
There is reduced business risks	50.0%	33.3%	16.7%	0.0%	0.0%
There is improved ability to employ new workers	25.0%	25.0%	50.0%	0.0%	0.0%
There is improved safety and security of goods	50.0%	50.0%	0.0%	0.0%	0.0%
There is improved quality of products	58.3%	33.3%	8.3%	0.0%	0.0%
There is increased business experiences	66.7%	25.0%	8.3%	0.0%	0.0%
There is improved ability to access credits	33.3%	58.3%	8.3%	0.0%	0.0%
There is improved joint problem-solving collaboration among traders	41.7%	41.7%	16.7%	0.0%	0.0%
Overall Rating	**46.6%**	**37.3%**	**16.2%**	**0.0%**	**0.0%**

5.1.4 Perceived Impact on Women Enterprises Competitiveness

Construction of Tunduma OSBP is perceived to have more impact/outcome to women enterprises competitiveness than when there was no facility. Based on the survey findings, traders generally agree (overall average perception rate of 75.0%) that construction of Tunduma OSBP has benefited more women

enterprises. While none of the traders disagreed with this notion, neutral rating accounts for an average of 24.1% which indicate that, there have been no difference before and after construction of the OSBP on women enterprises competitiveness (**Table: 5.1 – 5**).

Table: 5.1 – 5: Perceived Impact of Tunduma OSBP on Women Enterprises

User Perception	Strongly Agree	Agree	Moderately Agree	Disagree	Strongly Disagree
Women have widened types of their cross-border business	8.3%	75.0%	16.7%	0.0%	0.0%
Women have increased access to vending spaces	25.0%	58.3%	16.7%	0.0%	0.0%
Women have improved their business confidence	41.7%	33.3%	25.0%	0.0%	0.0%
Women have improved their availability to operate businesses	25.0%	58.3%	16.7%	0.0%	0.0%
Women have enabled to timely reaching customers	33.3%	50.0%	16.7%	0.0%	0.0%
There are improved distribution channels of products by women	8.3%	66.7%	25.0%	0.0%	0.0%
Women have improved in export/import capacity	33.3%	33.3%	33.3%	0.0%	0.0%
Women are now having improved trading operations	33.3%	33.3%	25.0%	8.3%	0.0%
Women experiences on cross border business is improved	33.3%	25.0%	41.7%	0.0%	0.0%
Overall Rating	**26.9%**	**48.1%**	**24.1%**	**0.9%**	**0.0%**

5.2 Impact/Outcome Assessment

5.2.1 Impact/Outcome on Business Competitiveness

The impact/outcome of Tunduma OSBP in terms of business competitiveness is obvious in terms of reduced time of export/import as discussed in chapter three above following time and traffic surveys done in 2018 and 2021. The OSBP also contributed to reduced exports/import procedures and so reduced cost of exportation and importation due to pre-arrival declaration of which about 95% of trucks using the facility almost complete the documentation process prior to arrival at the border which reduces the waiting time at the border.

However, due to absence of proper OSBP on the Nakonde side, the cost of doing business is still relatively high as it necessitates Clearing Agents on both sides (Tunduma/Tanzania and Nakonde/Zambia) to labour on the same shipment. At firm level, the facility/OSBP has improved competitiveness to private sector due to reduced smuggling (on approved routes/on other unofficial routes) due to joint verification with about 19 institutions, presence of simplified clearance procedures under Customs Preventive Services (CPS)[1] for Small Medium Enterprises (SMEs) where by the clearance process do not require hiring of clearance agency and presence of anti-smuggling teams which contributed to reduced corruption on the Tanzania side. Nevertheless, stakeholders argue that, corruption is significant on Zambian side. It is reported that, documentation change for Tanzania for instance takes 2 – 5

[1] Under CPS, small traders with cargo less than USD 2,000 (are allowed to import/export without use of Clearing Agents)

minutes, however, in Zambia it takes about 2 weeks which is longer than, the time taken to lodge fresh documentation which normally takes 2 – 3 days.

It is further reported that, bribes in Zambia leads to overstay of trucks in Tunduma side pending clearance of trucks from the Zambian side, before a truck is allowed entry. TRA customs manager randomly visits truck yards to enquire drivers who over stays of which some stays for up to 30 days and instructs them to move to Nakonde side to clear customs processes from that side rather than over staying on Tanzania side, although there is a penalty of TZS 40,000 charged after 7 days since the clearance issued to the truck to cross over to Zambia for overstay.

5.2.2 Impact/Outcome on Women Enterprises

Tunduma/Nakonde border is one of the busiest borders in Tanzania. Tunduma town for instance received ana average of 1,000 guests/day being drivers, traders and transit passengers. The border therefore is very active in terms of SMEs trade in addition to import/export and transit business. Discussions with TRA officials, clearing agents and women traders themselves reveal that, women have significantly benefited from Tunduma OSBP. Following simplified clearance procedures for SMEs many women have been encouraged to venture into cross border trade and those who were trading via smuggling have formalised use of the border as the cost of using the border is reduced coupled with increased transparency. It is reported further that, the number of women traders have increased due to improved security as the road to Zambia passes through the OSBP which is secure. On the other hand, most women around the OSBP are involved in food vending business which is an active subsector due to high population especially in Tunduma side. Similarly, the increase in the number of women clearing agents have also improved business confidence amongst women and so the use of the facility. It is now estimated the ratio between women and men SMEs traders using the border is about 50/50. The cross-border trade environment is expected to be even better and benefit more women, after the Nakode OSBP is built and jointly managed and implemented.

5.2.3 Impact/Outcome on Auxiliary Benefits of the OSBP

Increased Government Revenue

Tunduma OSBP started operations on 31st July 2018. Prior to construction of OSBP the facility revenue increased from TZS 33,817 million recorded in 2014 to TZS 61,933 million recorded in 2016 i.e., a total of TZS 138,257 million for three years. Assuming construction works started in 2017 to 2018, after construction, the facility revenue rose from TZS 53,397 million recorded in 2019 to TZS 86,038 million recorded in 2021 i.e., a total of TZS 200,698 million for three years. This means that, over the period of three years, revenue

collections to the government have increased by TZS 62,441 million i.e., a 31% increase (**Fig. 5.2 – 1**).

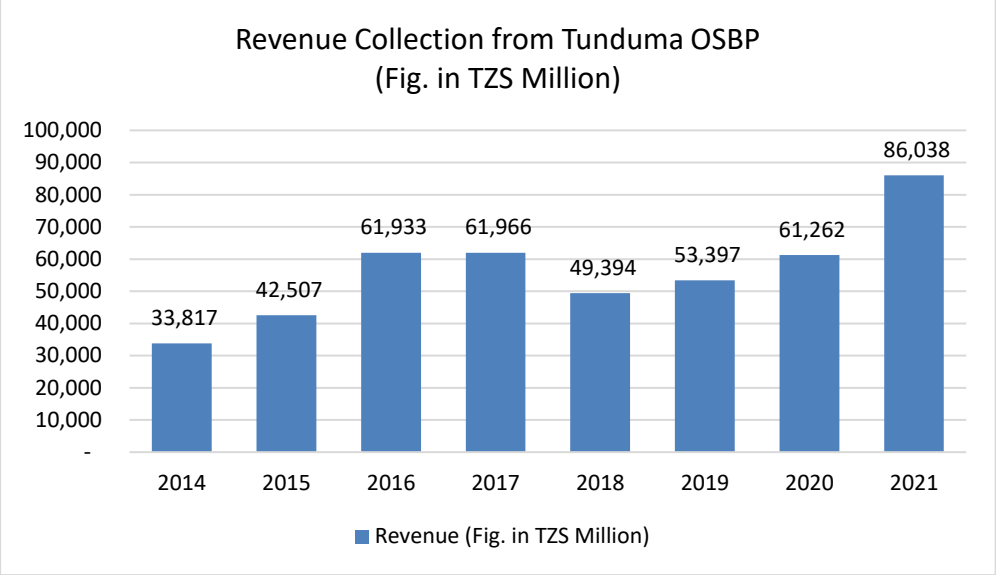


Fig. 5.2 – 1: Revenue Collection from Tunduma OSBP
Source: TRA & Consultant Evaluation, 2022

Job Creation, Products Price Changes and Improved Livelihood of the Surrounding Community

Stakeholders' consultations revealed that the OSBP has wider impact to the community in Tunduma. In terms of employment creation, the OSBP increased employment to various subsectors including, food venders, accommodation venders, and clearing agents amongst others. These impacts are direct proportion to the nature of businesses done at the border. The survey shows that, at Tunduma OSBP the typical business for the community around includes foodstuffs and business supplies which account for 23.8% followed by textile and clothing at 19%. Other businesses include agricultural produce and machines and appliances at 9.5% and 4.8% respectively (**Fig. 5.2 – 2**).

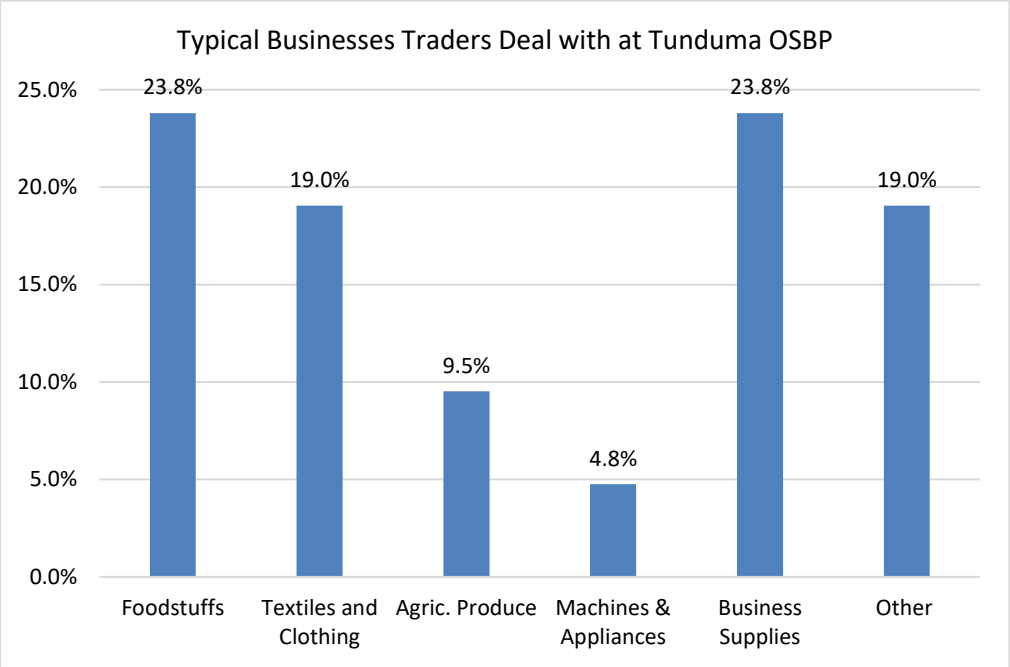


Fig. 5.2 – 2: Typical Businesses Traders Deal with at Tunduma OSBP

For the case of employment to Clearing Agents, the number of agents increased from 300 to 470 agents. Although, there were no baseline data on product prices, the same fell due to increased number of suppliers (demand and supply issues) as well as reduced cost of import/exports. Discussions with the community around show that, livelihood also improved significantly as can be manifested by increasing number of better houses, accommodation services and well branded shops. Other outcome includes increased number of hotels/guests, number of transporters, forex and shops, increased respect between traders and drivers as drivers can be assisted by customs in charge to claim their statutory from their employers (the OSBP is used as a point of mediation amongst stakeholders). Similarly, due to increased transparency level in clearance and verification, TRA, clearing agents and traders have now become business partners (friends) unlike earlier before the OSBP when they were really enemies (**Annex 5.2 – 1**).

5.3 Correlation between Improved Infrastructure and Import/Export Volumes

As discussed herein, Tunduma OSBP started operations on 31st July 2018. Given the available import and export volume data between 2014 to 2021, and the fact that, we do not have other variables for improved infrastructure, we cannot carry out correlation analysis between improved infrastructure and import/export volumes. In view of the aforementioned, trend analysis over time have been done whereby import/export volume before and after infrastructure improvement were plotted fitted with a trend line and an R-square to show how significant is the trend. Therefore, the trend analysis over time between improved infrastructures and export/import volumes by companies are established using the import/export volume

data from the OSBP rather than from individual companies as it was difficult to get import/export volume data from companies for the study period.

The analysis shows that, prior to construction of OSBP the import/export volume data had a decreasing trend of which exports had a significant decreasing trend while imports not (i.e., R^2 = 0.93 and R^2 = 0.18 for exports and imports respectively). However, after construction of OSBP, both import and exports had a significant increasing trend (i.e., R^2 = 0.80 and R^2 = 0.67 for imports and exports respectively). In view of the aforementioned, it can be concluded that, correlation with time to gauge the effect due to change of infrastructure occurred over time (**Fig. 5.3 – 1 & 2**).

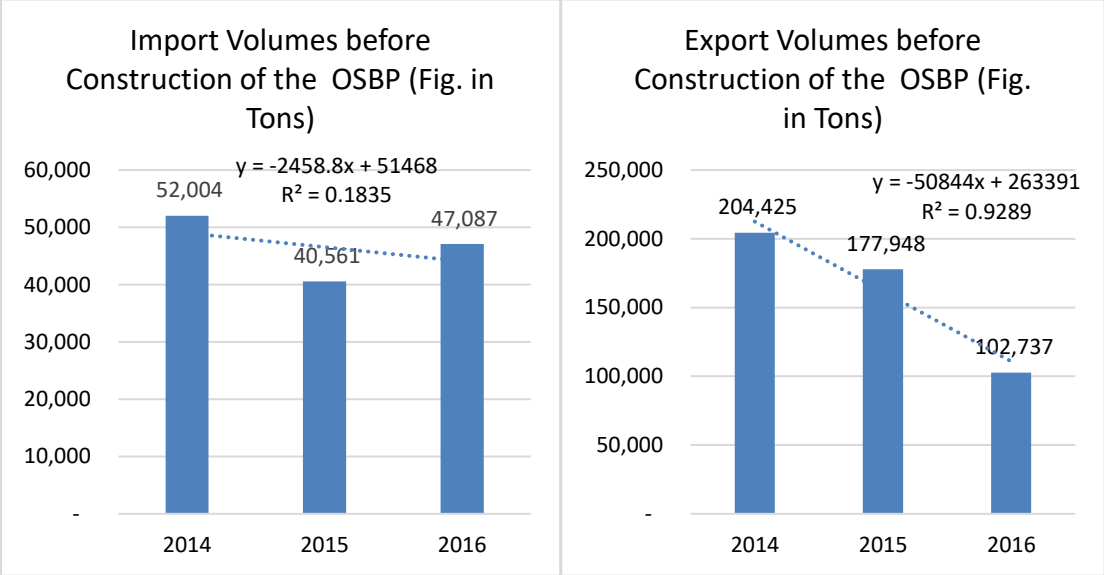


Fig. 5.3 – 1: Import and Export Volumes for Tunduma OSBP
Source: TRA & Consultant Evaluation, 2022

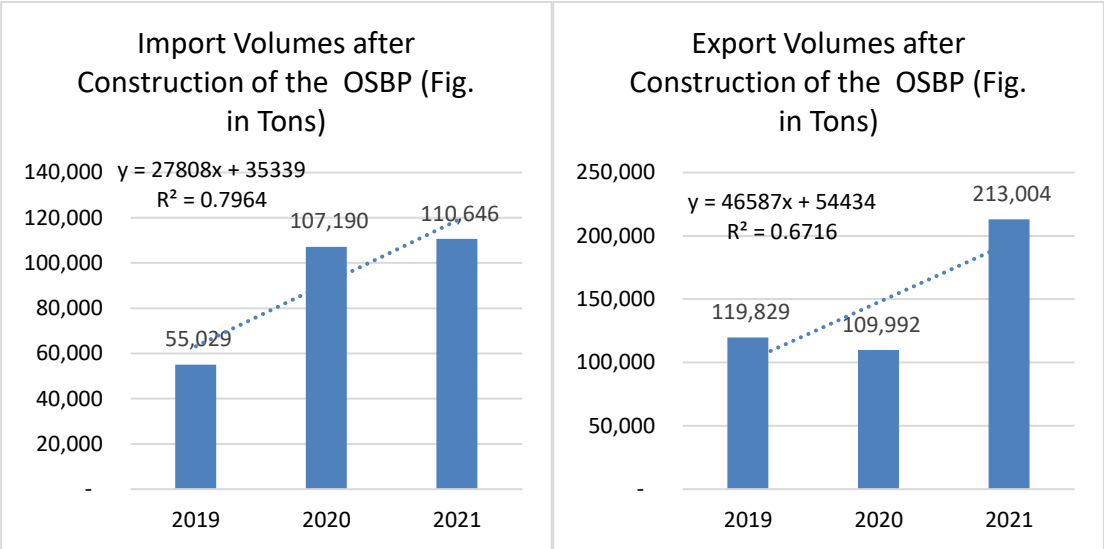


Fig. 5.3 – 2: Import and Export Volumes after Construction of OSBP
Source: TRA & Consultant Evaluation, 2022

5.4 Key Challenges that Impact Border Operation Efficiencies and Way Forward

There are key challenges that impact border operations efficiency. Discussion with the lead agency (TRA - Tunduma) officials and key stakeholders recommended improvement/provision of the following facilities/equipment to improve efficiency:

i) Lack of off-loading equipment: Provide off-loading equipment i.e., forklift and 60t heavy-duty crane to cater for traffic incidences as explained above;
ii) Absence of friendly verification bay with higher steps for viewing on top of tankers especially for women: Construct a modern and gender friendly verification bay for inspection of tankers;
iii) Narrow road to Zambia: Expand the approach road to at least three (3) lanes from the existing one (1) lane to allow overtaking;
iv) Narrow and congested Tunduma road especially from Mpemba to the OSBP: Expand the Tunduma highway at least from the Weighbridge (Mpemba) to the OSBP from the existing two (2) lanes to at least four (4) lanes to improve traffic flow;
v) Parking yard is inadequate: Procure extra space and extend the truck holding yard as per the demand. All tracks should be accommodated at the OSBP to avoid smuggling);
vi) Absence of scanners for quick verification of homogenous cargo and empty trucks: Expedite construction and installation of modern scanner to speedup cargo verification especially for homogeneous cargo including empty trucks;
vii) Absence of office for other key OSBP stakeholders: Provide office accommodation within the OSBP for other key stakeholders such as TAFFA, TCCIA and Drivers association; and
viii) Absence of 24hour service for the Bank: Ensure the Bank operates 24hrs similar to the OSBP operation schedule.

Stakeholders, are of the opinion that, the mobile heavy-duty crane is crucial for offloading containers in case of conflicts between transporters and cargo owners. Similarly, the crane can be used for rescuing situation in case of accidents which creates jam at the OSBP. Although, at Nakonde there is scanner, stakeholders complained that, the scanner is outdated and has several downtimes which contributes to longer queues on Tunduma side. It is therefore recommended the Government through bilateral relations, lobby for Zambian government to install modern scanner that can cope with the demand of the facility.

6.0 FINDINGS: MUTUKULA OSBP

6.1 Mutukula OSBP Traders Survey

6.1.1 Description of Respondents

Firm Size, Structure and Ownership Disaggregated by Gender

At Mutukula OSBP, four (4) traders using the border were interviewed. Most of these traders have been in business for at least 10 years (50.0%) and have been using the border for at least 6 - 10 years (75%). This implies that, at least majority of traders have adequate experience in the sector. The survey shows that most of these businesses are medium to large size (50%). All of these businesses operate as partnership and/or limited liability companies. All these businesses are run by men (100%) (**Table: 6.1 - 1 & 2 and Fig: 6.1 – 1 & 2).**

Table: 6.1 – 1: Firm Size Vs Year of Establishment

Year of Establishment	Firm Size	Respondent	Percent	Total Respondent	Establishment Proportion
3 - 5 Years	Small (5-19)	1	25.0%	1	25.0%
5 - 10 Years	Medium (20-99)	1	25.0%	1	25.0%
> 10 Years	Medium (20-99)	1	25.0%	2	50.0%
	Large (>100)	1	25.0%		
Grand Total		**4**	**100.0%**	**4**	**100%**

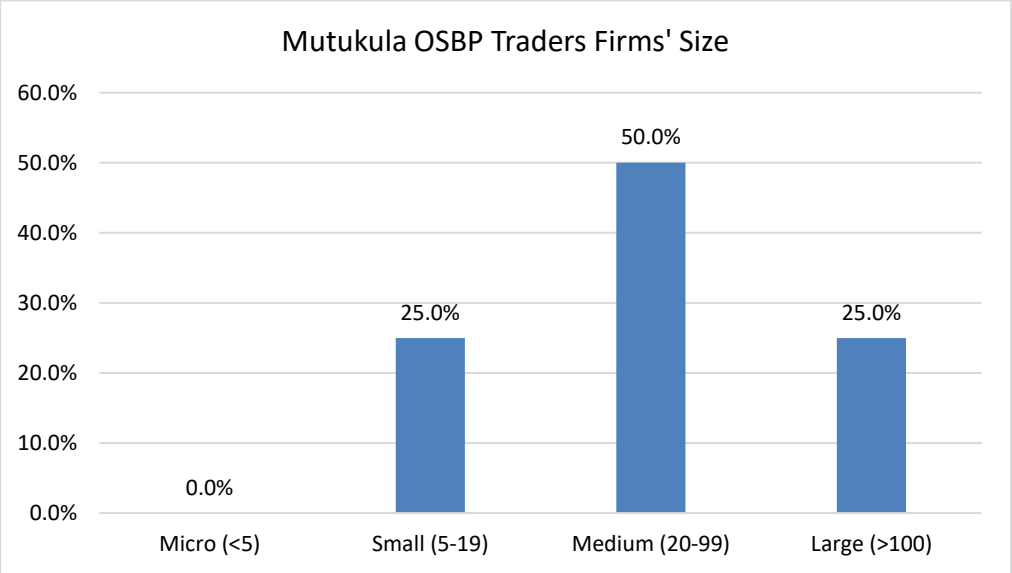


Fig. 6.1 – 1: Mutukula OSBP Traders Firm Size

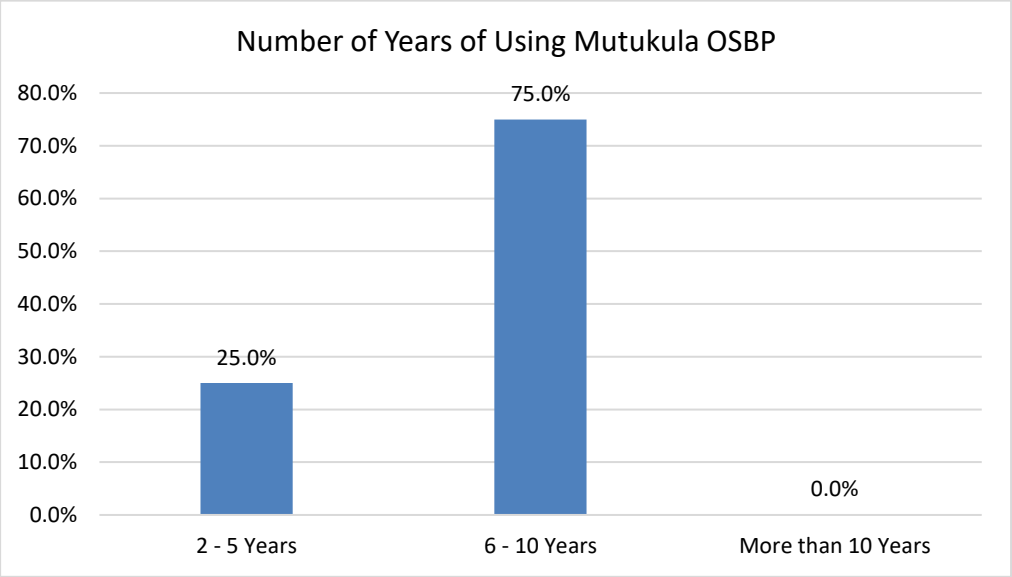


Fig. 6.1 – 2: Mutukula OSBP Traders Number of Years of Using the Border

Table: 6.1 – 2: Firm Structure and Ownership Disaggregated by Gender

Business Ownership Structure	Gender of the Firm Owner	Respondent	Percent
Owned by more than one person	Majority are Male	4	100.0%
Grand Total		**4**	**100.0%**

Traders' Sector of Business

The survey shows that, the traders interviewed engage in businesses of manufacturing and production subsectors which account for 75%, and 25% respectively (**Fig. 6.1 – 3**).

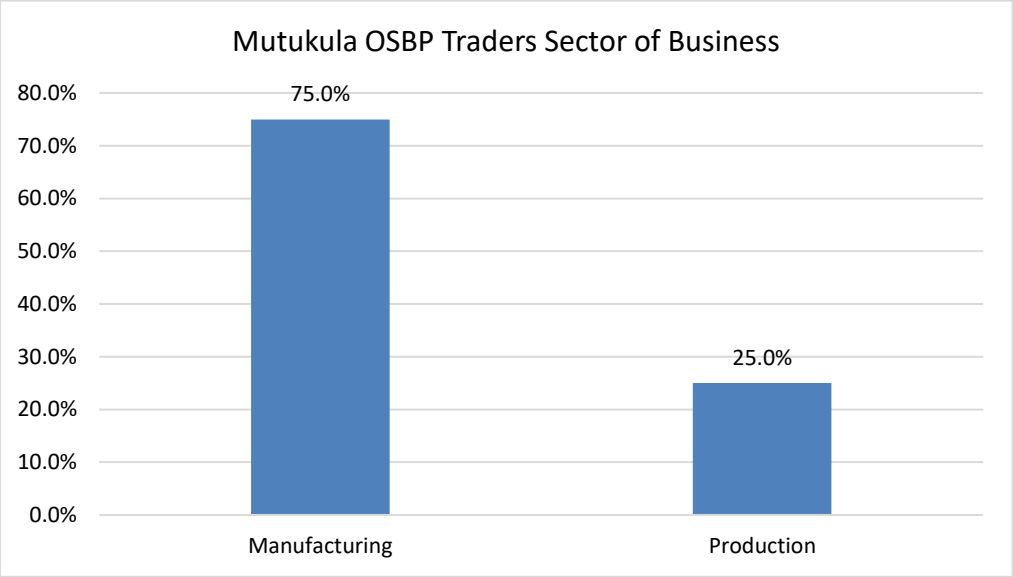


Fig. 6.1 – 3: Mutukula OSBP Traders Sector of Business

Traders Line of Business

The survey results indicate that, most of the Mutukula OSBP traders interviewed are in the line of business of exportation (33.3%). Importation ranks second at 25.0% followed by wholesale and manufacturing both at 16.7% and production at 8.3% (**Fig. 6.1 – 4**).

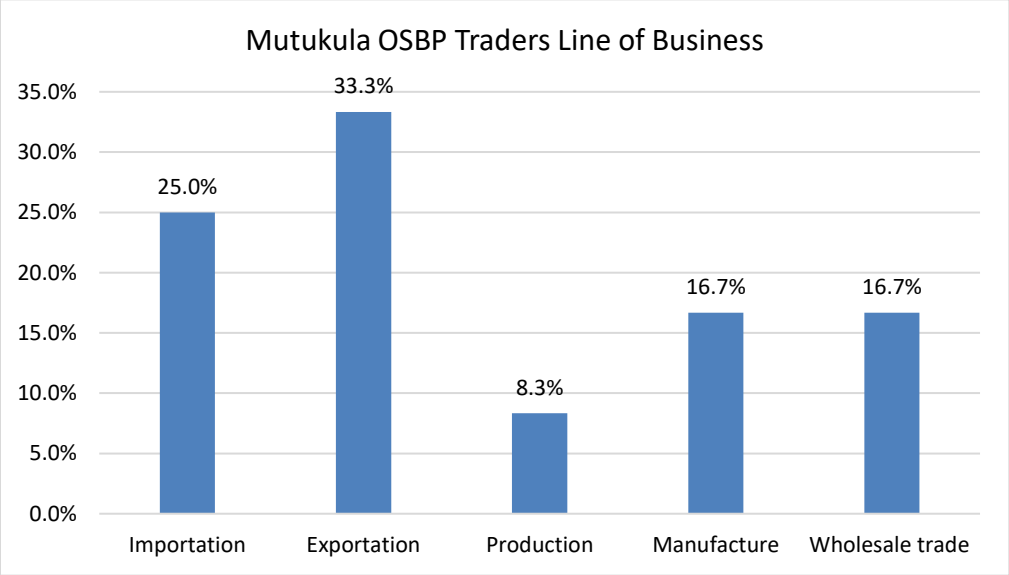


Fig. 6.2 – 2: Mutukula OSBP Traders Line of Business

6.1.2 Level of Satisfaction Following Construction of the OSBP

The survey indicates that, Mutukula OSBP traders are moderately satisfied (overall average satisfaction rate of 64.1%) with the OSBP facilities, clearance procedures and cost of using the facility. Neutral rating accounts for an average of 21.9% which indicate that traders have not seen a difference in border improvement. Dissatisfaction rating is also reported at an average of 14.1% signifying there are more improvements needed especially on parking facilities, separation of passengers and goods, warehouse facilities, disabled facilities, import/export procedures and documentary clearance for goods amongst others. During stakeholders' consultations it was reported that, documentation process is mostly impacted by system downtime thus creating unnecessary delays (**Table: 6.1 – 3**).

Table: 6.1 – 3: Level of Satisfaction with the Port Improvement Interventions

Satisfaction Criteria	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
Satisfaction with the time taken for documentary clearance for goods	50.0%	0.0%	25.0%	25.0%	0.0%
Satisfaction with the import/export procedures	25.0%	25.0%	25.0%	25.0%	0.0%
Satisfaction with the cost of using the border	0.0%	50.0%	50.0%	0.0%	0.0%
How satisfied are you with the facilities at the border	25.0%	75.0%	0.0%	0.0%	0.0%
Satisfaction with the joint examination	0.0%	50.0%	50.0%	0.0%	0.0%
Satisfaction with the decreased service time	50.0%	50.0%	0.0%	0.0%	0.0%
Satisfaction with the changes in security	50.0%	25.0%	25.0%	0.0%	0.0%
Satisfaction with the search by gender	75.0%	0.0%	25.0%	0.0%	0.0%
Satisfaction with the cleanliness	25.0%	50.0%	25.0%	0.0%	0.0%
Satisfaction with the toilets for males/females	25.0%	25.0%	50.0%	0.0%	0.0%
Satisfaction with the warehouse facilities	25.0%	50.0%	0.0%	25.0%	0.0%
Satisfaction with the signage	50.0%	0.0%	25.0%	25.0%	0.0%
Satisfaction with the parking facilities	25.0%	50.0%	0.0%	0.0%	25.0%
Satisfaction with the separation of passengers and goods	25.0%	25.0%	25.0%	0.0%	25.0%
Satisfaction with the HIV signs	25.0%	50.0%	0.0%	0.0%	25.0%
Satisfaction with the disabled facilities	0.0%	25.0%	25.0%	25.0%	25.0%
Overall level of satisfaction	**29.7%**	**34.4%**	**21.9%**	**7.8%**	**6.3%**

6.1.3 User Perceptions on the Business Competitiveness

The survey shows that, Mutukula OSBP traders moderately agree (overall average perception rate of 63.2%) that there is improved business competitiveness at firm level following construction of OSBP. The key business competitive elements reported here include amongst others improved transfer of technology, skills and knowledge, easy coordination of border agencies via the lead agency (TRA), increased transport turnaround time, increased trading volume, improved safety and security of goods and improved joint problem-solving collaborations amongst traders. Neutral rating accounts for an average of 33.8% which indicate that traders have not seen a difference in terms of improved business competitiveness following construction of OSBP. Disagreement rating were also reported at the rate of 3% indicating there are more improvements needed especially on reduction of

operation cost and simplified access to inputs. In view of the aforementioned, despite the disagreement on some elements of business competitiveness, business competitiveness has moderately improved following construction of Mutukula OSBP (**Table: 6.1 – 4**).

Table: 6.1 – 4: User Perceptions on the Improved Business Competitiveness

User Perception	Strongly Agree	Agree	Moderately Agree	Disagree	Strongly Disagree
There is easy coordination of border agencies	25.0%	50.0%	25.0%	0.0%	0.0%
There is an increased transport turnaround time	50.0%	50.0%	0.0%	0.0%	0.0%
Sales are more compared to previous (trading volumes have	50.0%	0.0%	50.0%	0.0%	0.0%
Trading are now simplified	75.0%	25.0%	0.0%	0.0%	0.0%
Business have improved	25.0%	50.0%	25.0%	0.0%	0.0%
Better profits margins are realized	25.0%	0.0%	75.0%	0.0%	0.0%
Business operation costs are reduced	25.0%	25.0%	25.0%	0.0%	25.0%
Simplified access to inputs is enjoyed	25.0%	25.0%	25.0%	25.0%	0.0%
Transfer of technology, knowledge and skills have improved	100.0%	0.0%	0.0%	0.0%	0.0%
There an increased price fairness	25.0%	25.0%	50.0%	0.0%	0.0%
There is reduced business risks	25.0%	25.0%	50.0%	0.0%	0.0%
There is improved ability to employ new workers	25.0%	25.0%	50.0%	0.0%	0.0%
There is improved safety and security of goods	25.0%	50.0%	25.0%	0.0%	0.0%
There is improved quality of products	50.0%	25.0%	25.0%	0.0%	0.0%
There is increased business experiences	50.0%	0.0%	50.0%	0.0%	0.0%
There is improved ability to access credits	25.0%	25.0%	50.0%	0.0%	0.0%
There is improved joint problem-solving collaboration among traders	25.0%	25.0%	50.0%	0.0%	0.0%
Overall Rating	**38.2%**	**25.0%**	**33.8%**	**1.5%**	**1.5%**

6.1.4 Perceived Impact on Women Enterprises Competitiveness

Construction of Mutukula OSBP is perceived to have moderate impact/outcome to women enterprises competitiveness than when there was no facility. Based on the survey findings, traders moderately agree (overall average perception rate of 50.0%) that construction of Mutukula OSBP has benefited more women enterprises. While none of the traders disagreed with this notion, neutral rating accounts for an average of 50% which indicate that, there have been no difference before and after construction of the OSBP on women enterprises competitiveness (**Table: 6.1 – 5**).

Table: 6.1 – 5: Perceived Impact of Mutukula OSBP on Women Enterprises

User Perception	Strongly Agree	Agree	Moderately Agree	Disagree	Strongly Disagree
Women have widened types of their cross-border business	50.0%	0.0%	50.0%	0.0%	0.0%
Women have increased access to vending spaces	0.0%	50.0%	50.0%	0.0%	0.0%
Women have improved their business confidence	25.0%	25.0%	50.0%	0.0%	0.0%
Women have improved their availability to operate businesses	25.0%	25.0%	50.0%	0.0%	0.0%
Women have enabled to timely reaching customers	50.0%	0.0%	50.0%	0.0%	0.0%
There are improved distribution channels of products by women	50.0%	0.0%	50.0%	0.0%	0.0%
Women have improved in export/import capacity	25.0%	25.0%	50.0%	0.0%	0.0%
Women are now having improved trading operations	25.0%	25.0%	50.0%	0.0%	0.0%
Women experiences on cross border business is improved	25.0%	25.0%	50.0%	0.0%	0.0%
Overall Rating	**30.6%**	**19.4%**	**50.0%**	**0.0%**	**0.0%**

6.2 Impact/Outcome Assessment

6.2.1 Impact/Outcome on Business Competitiveness

The impact/outcome of Mutukula OSBP in terms of business competitiveness is obvious in terms of reduced time of export/import as discussed in chapter three above following time and traffic surveys done in 2011 and 2016. The OSBP also contributed to reduced exports/import procedures and so reduced cost of exportation and importation due to pre-arrival declaration of which about 95% of trucks using the facility almost complete the documentation process prior to arrival at the border which reduces the waiting time at the border.

The joint verification reduced cargo double handling and unnecessary delays thus reduced cost of imports/exports. With Single Customs Territory (SCT), verification and clearance of cargo has improved further. Similarly, the bank operates 24hrs so it is easy for agents to make payments anytime. At firm level, the facility/OSBP has improved competitiveness to private sector due to reduced smuggling (on approved routes/on other unofficial routes) due to joint verification with about 19 institutions, presence of anti-smuggling teams which contributed to reduced corruption and presence of simplified clearance procedures for Small Medium Enterprises (SMEs) where by the clearance process do not require hiring of clearance agency. Stakeholders point out that, the facility also increased savings in time and expenditure to driver as SCT allows payment of tax for the cargo even prior to transportation (thus no delays at the border).

6.2.2 Impact/Outcome on Women Enterprises

Mutukula border is one of the second busiest borders in Tanzania after Tunduma. The border town for instance received an average of 500 guests/day being drivers, traders and transit passengers. The border therefore is very active in terms of SMEs trade in addition to import/export and transit business. Discussions with TRA officials, clearing agents and women traders themselves reveal that, women have significantly benefited from Mutukula OSBP. The simplified import/export procedures for SMEs whose consignment value is less or equal to USD 2,000 have encouraged more women to venture into cross border trade and those who were trading via smuggling to formalised use of the border as the cost of using the border is reduced coupled with increased transparency.

Border incentives such as zero import duty for goods from within East African Community (EAC) and zero import duty and VAT for fruits import/export within EAC have also encourages more women into cross border trade. On the other hand, women enterprises especially food venders on the Tanzania side have benefited a lot due to competitive advantage of Tanzanian shillings over

Ugandan shilling (Food in Tanzania is relatively cheaper than Uganda). It is reported further that, the number of women traders have increased due to improved security as the road to Uganda passes through the OSBP which is secure. Similarly, the increase in the number of women clearing agents have also improved business confidence amongst women and so the use of the facility.

6.2.3 Impact/Outcome on Auxiliary Benefits of the OSBP

Increased Government Revenue

Mutukula OSBP started operations on 20th June 2016. Although, revenue data couldn't be retrieved prior to year 2014, prior to construction of OSBP, the facility revenue fell from TZS 14,500.42 million recorded in 2014 to TZS 11,993.20 million recorded in 2015. After construction, the facility revenue rose steadily from TZS 11,973.49 million recorded in 2017 to TZS 30,262 million recorded in 2021 (**Fig. 5.2 – 1**).

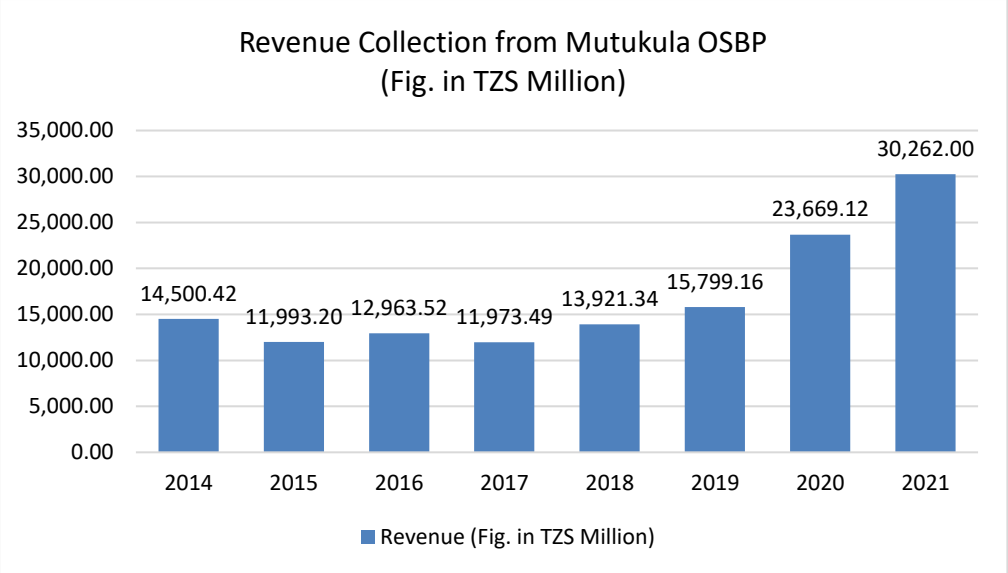


Fig. 6.2 – 1: Revenue Collection from Mutukula OSBP
Source: TRA & Consultant Evaluation, 2022

Job Creation, Products Price Changes and Improved Livelihood of the Surrounding Community

Stakeholders' consultations show that that the OSBP had wider impact to the community in Mutukula. The OSBP increased employment to various subsectors including, food venders, accommodation venders, and clearing agents amongst others. These impacts are direct proportion to the nature of businesses done at the border. The survey shows that, at Mutukula OSBP the typical business for the community around includes other businesses which account for 28.6% such as transport services operator (bodaboda),

shopkeeping, and confectionaries. Foodstuff business ranks second at 25.7% followed by business supplies at 20%. Other businesses include agricultural produce sales and textile and clothing which account for 14.3% and 5.7% respectively (**Fig. 5.2 – 2**).

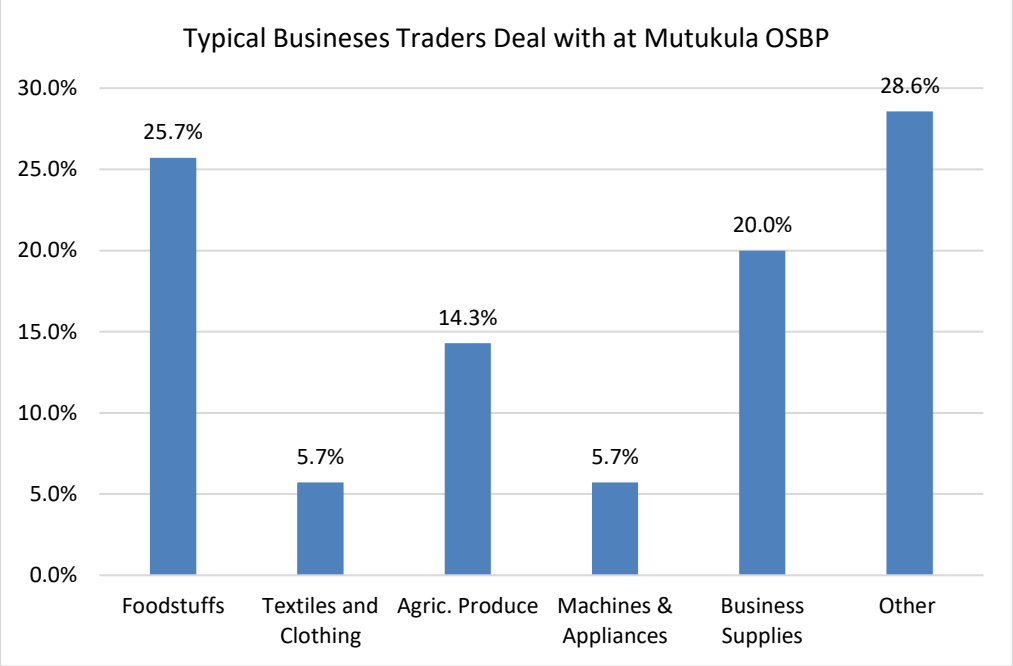


Fig. 5.2 – 2: Typical Businesses Traders Deal with at Mutukula OSBP

In terms of employment creation to Clearing Agents, stakeholders point out that, construction of OSBP in both Tanzania and Uganda side pushed away some Clearing Agents due to omission of double cargo handling as clearance is done at one side (i.e., importing country). Similarly, with simplified processes coupled with digitalisation, more qualified agents are now in business unlike when there were no OSBPs. Nevertheless, the number of Clearing Agents have increased from 4 companies each with 2-3 staff to 15 companies each with 7-8 staff.

the OSBP increased employment to various subsectors including, food venders, accommodation venders, and clearing agents amongst others. For the case of Clearing Agents, the number of agents increased from 300 to 470 agents. Although, there were no baseline data on product prices, the same fell due to increased number of suppliers (demand and supply issues) as well as reduced bureaucracy which reduced cost of import/export. Price of steel for instance, reduced from TZS 20,000 - 22,000 before the OSBP to TZS 15,000 – 17,000 after construction of the OSBP.

Discussions with the community around show that, livelihood also improved significantly as can be manifested by increasing number of better houses, accommodation services and well branded shops. The OSBP increased property value in the area. Increased population increased informal sector

business like bodaboda, food venders, cleaners, gardening, banking services in which earlier banks were to be accessed in Kyaka at a distant from Mutukula. Other outcome includes increased number of hotels/guests, number of transporters, forex and shops, increased respect between traders and drivers as drivers can be assisted by customs in charge to claim their statutory from their employers (the OSBP is used as a point of mediation amongst stakeholders). Similarly, due to increased transparency level in clearance and verification, TRA, clearing agents and traders have now become business partners (friends) unlike earlier before the OSBP when they were really enemies (**Annex 6.2 – 1**).

6.3 Correlation between Improved Infrastructure and Import/Export Volumes

As discussed herein, Mutukula OSBP started operations on 20th June 2016. Similarly, to Tunduma OSBP, a trend analysis over time have been done whereby import/export volume before (i.e., 2014 – 2015) and after (i.e., 2017 – 2021) infrastructure improvement was plotted fitted with a trend line and an R-square to show how significant is the trend. The analysis shows that, prior to construction of OSBP both import/export volume data had a significant decreasing trend (i.e., $R^2 = 1$). However, after construction of OSBP, both import and exports had a moderate significant increasing trend (i.e., $R^2 = 0.42$ and $R^2 = 0.59$ respectively). In view of the aforementioned, it can be concluded that, correlation with time to gauge the effect due to change of infrastructure occurred over time (**Fig. 5.3 – 1 & 2**).

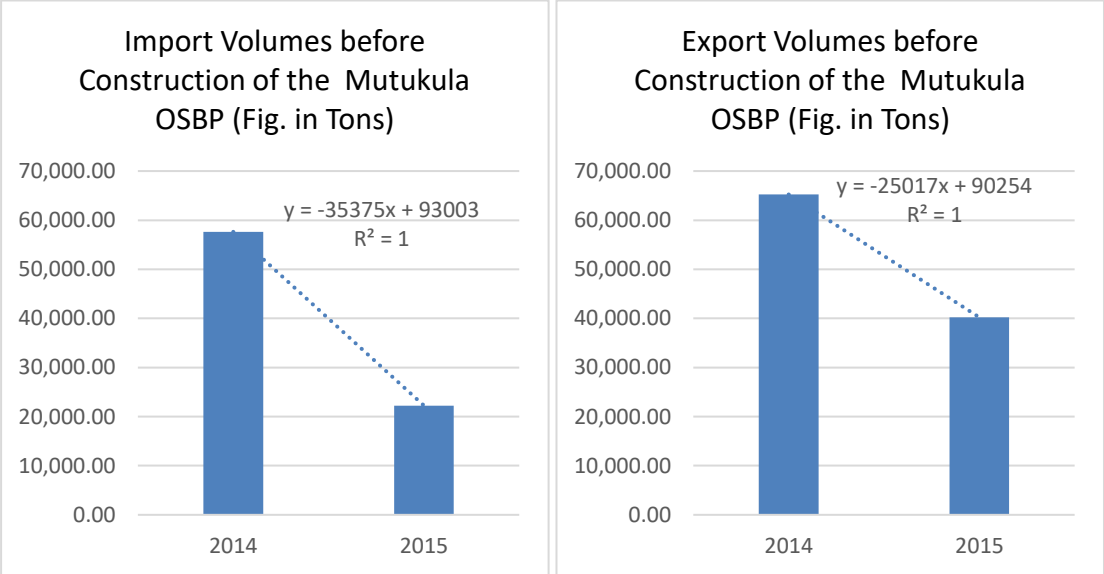


Fig. 6.3 – 1: Import and Export Volumes for Mutukula OSBP
Source: TRA & Consultant Evaluation, 2022

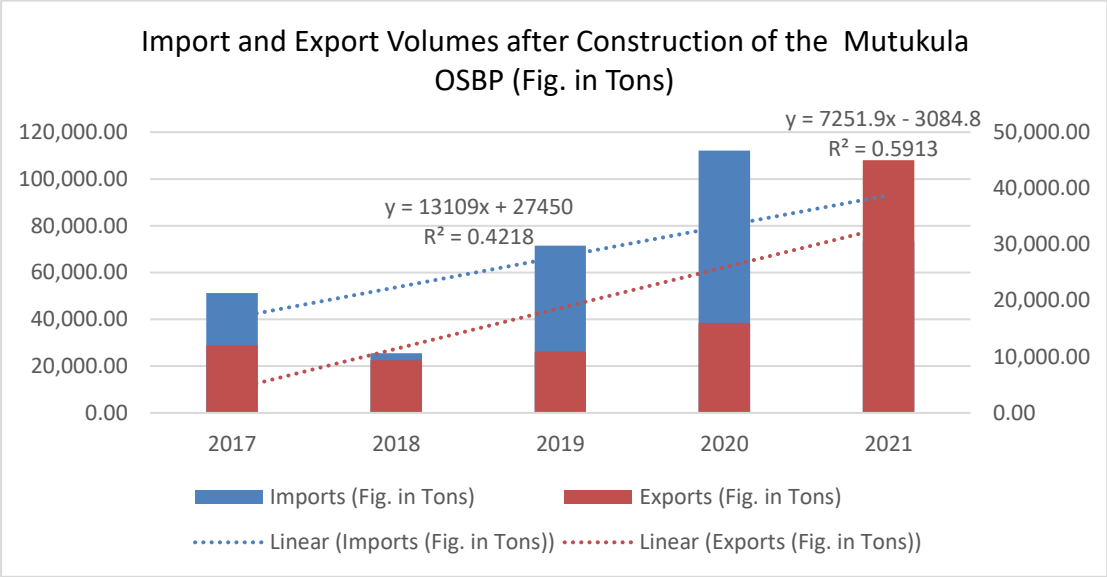


Fig. 6.3 – 1: Import and Export Volumes for Mutukula OSBP
Source: TRA & Consultant Evaluation, 2022

6.4 Key Challenges that Impact Border Operation Efficiencies and Way Forward

There are key challenges that impact border operations efficiency. Discussion with the lead agency (TRA - Mutukula) officials and key stakeholders recommended improvement/provision of the following facilities/equipment to improve efficiency:

i) Lack of off-loading equipment: Provide off-loading / stripping equipment i.e., forklift and heavy-duty cranes;
ii) Presence of several exit/feeder roads within control zone: By design, OSBP require one access road from entry to exit point. Provide capstone to train traffic to the border exit point;
iii) Limited operations from the offices at the entry and exit point on the Tanzania side due to absence of adequate space: Offices at the entry and exit point on Tanzania side were designed as guard house rather than offices as a result some operations ought to be done at the gate are done inside the main OSBP building. It is recommended to construct adequate offices at the entry and exit point for the target gate operations.
iv) Absence of scanners for quick verification of homogenous cargo and empty trucks: Construct and install modern scanner to speedup cargo verification especially for homogeneous cargo including empty trucks;
v) Delays due to system interface between TANCIS and ASCUDA ++: Fix the interfacing challenges to ensure all documents lodged in ASCUDA++ can fully be retrieved in TANCIS system to avoid delays;
vi) Absence of office for other key OSBP stakeholders: Provide office accommodation within the OSBP for other key stakeholders such as TAFFA, TCCIA and Drivers association; and
vii) Improper bond for cargo from Kenya to Tanzania via Uganda: All cargo under EAC are ought to be zero bond, however, for cargo from Kenya to Tanzania via

Uganda, URA bonds it. It is recommended the government of Tanzania through bilateral relations to ensure URA treats such cargo equally to other EAC cargo i.e., zero bond.

7.0 FINDINGS: KABANGA/KOBELO OSBP

7.1 Kabanga OSBP Traders Survey

7.1.1 Description of Respondents

Firm Size, Structure and Ownership Disaggregated by Gender

At Kabanga OSBP, 9 traders using the border were interviewed. Most of these traders have been in business for at least 10 years (66.7%) and have been using the border for more than 10 years (44.4%). This implies that, at least majority of traders have adequate experience in the sector. The survey shows that most of these businesses are medium size to large size (44.4%). All of these businesses operate as partnership and/or limited liability companies mostly run by men (77.8%) (**Table: 7.1 - 1 & 2 and Fig: 7.1 – 1 & 2).**

Table: 7.1 – 1: Firm Size Vs Year of Establishment

Year of Establishment	Firm Size	Respondent	Percent	Total Respondent	Establishment Proportion
3 - 5 Years	Small (5-19)	2	22.2%	2	22.2%
5 - 10 Years	Small (5-19)	1	11.1%	1	11.1%
> 10 Years	Medium (20-99)	4	44.4%	6	66.7%
	Large (>100)	2	22.2%		
Grand Total		**9**	**100.0%**	**9**	**100.0%**

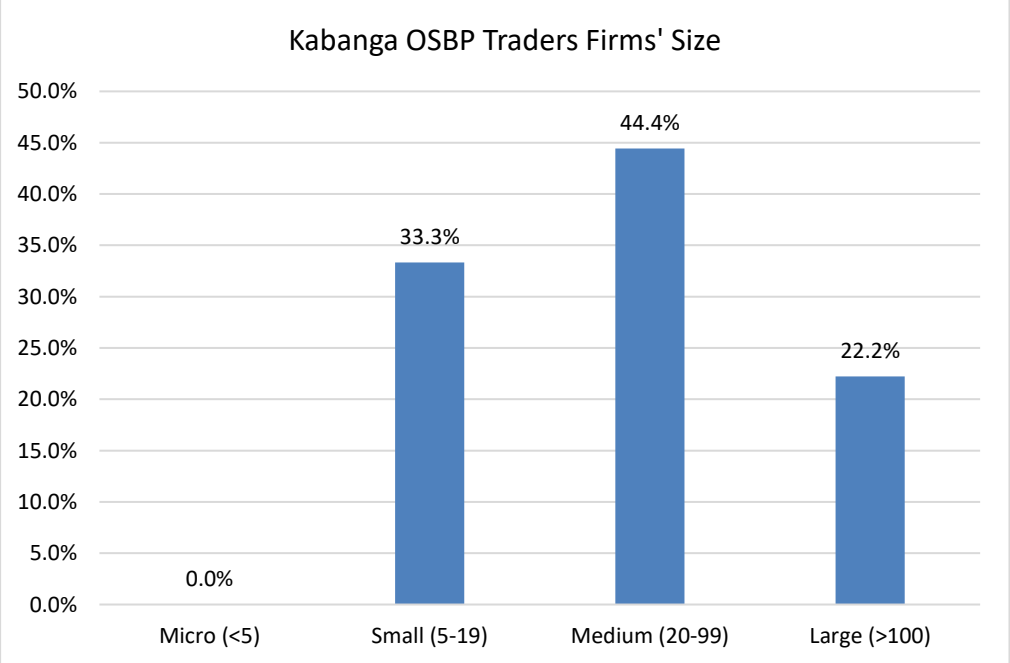


Fig. 7.1 – 1: Kabanga OSBP Traders Firm Size

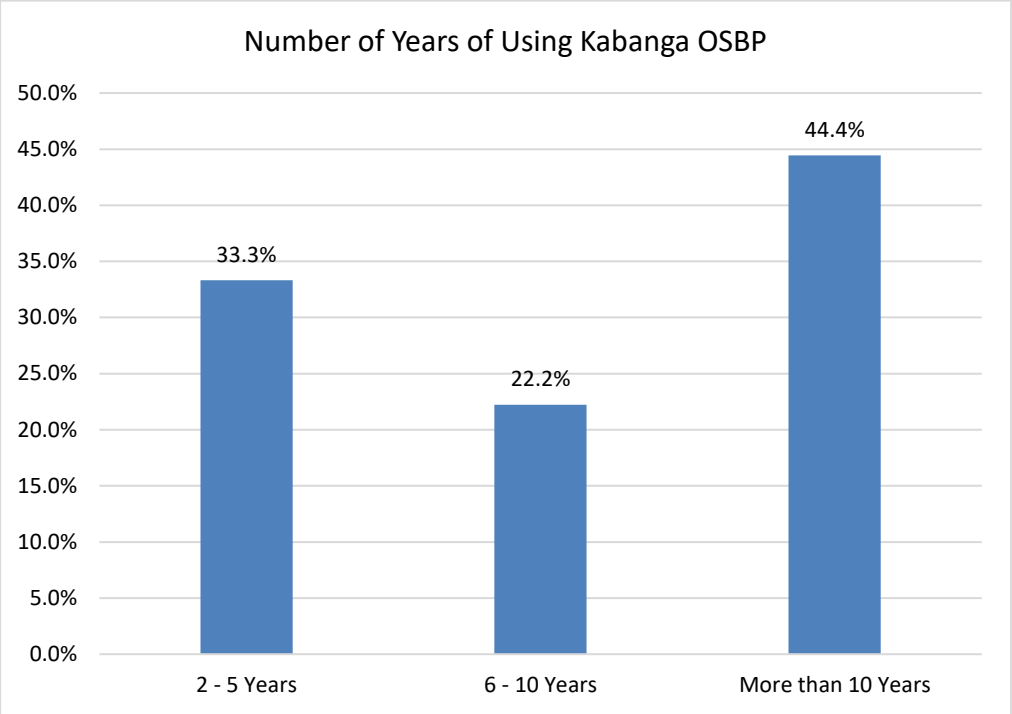


Fig. 7.1 – 2: Kabanga OSBP Traders Number of Years of Using the Border

Table: 7.1 – 2: Firm Structure and Ownership Disaggregated by Gender

Business Ownership Structure	Gender of the Firm Owner	Respondent	Percent
Owned by more than one person	Equal number of Female and Male	1	11.1%
	Majority are female	1	11.1%
	Majority are Male	7	77.8%
Grand Total		**9**	**100.0%**

Traders' Sector of Business

The survey shows that, most of the Kabanga OSBP traders interviewed engage in businesses of manufacturing subsectors which account for 44.4%. Other subsectors include agriculture and services both accounting for 22.2% and production which account for 11.1% of the market share (**Fig. 7.1 – 3**).

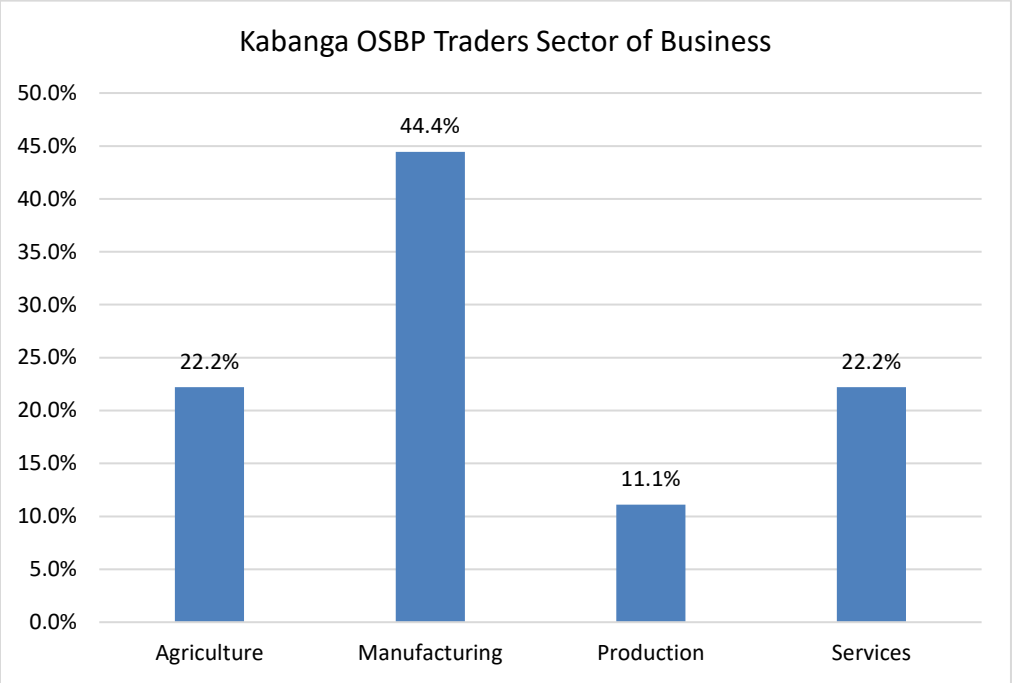


Fig. 7.1 – 3: Kabanga OSBP Traders Sector of Business

Traders Line of Business

The survey results show that, most of the Kabanga OSBP traders interviewed are in the line of business of exportation (36.0%). Importation ranks second at 28.0% followed by manufacturing and wholesale at 16.0% and 12.0% respectively (**Fig. 7.1 – 4**).

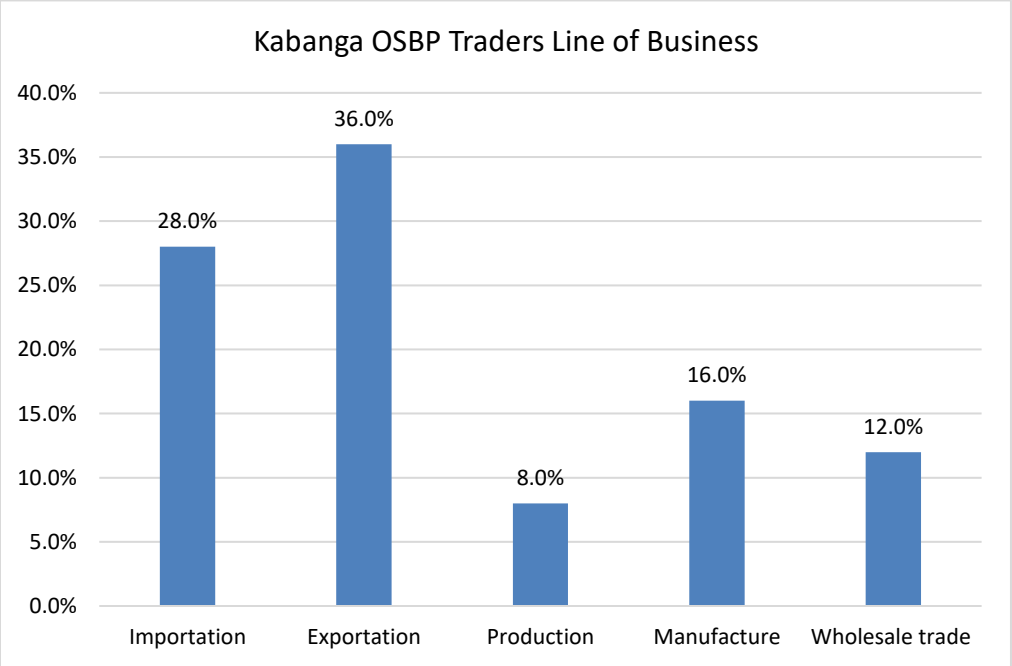


Fig. 7.2 – 2: Kabanga OSBP Traders Line of Business

7.1.2 Level of Satisfaction Following Construction of the OSBP

The survey indicates that, Kabanga OSBP traders are generally satisfied (overall average satisfaction rate of 81.3%) with the OSBP facilities, clearance procedures and cost of using the facility. Neutral rating accounts for an average of 13.2% which indicate that traders have not seen a difference in border improvement. Dissatisfaction rating is also reported at an average of 5.6% signifying there is more improvement needed especially on facilities at the border, parking facilities, joint examination, documentary clearance of goods, cost of using the border, service time and separation of passengers and goods amongst others. During stakeholders' consultations it was reported that, documentation process is mostly impacted by system downtime thus creating unnecessary delays (**Table: 7.1 – 3**).

Table: 7.1 – 3: Level of Satisfaction with the Port Improvement Interventions

Satisfaction Criterias	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
Satisfaction with the time taken for documentary clearance for goods	55.6%	33.3%	0.0%	11.1%	0.0%
Satisfaction with the import/export procedures	55.6%	33.3%	11.1%	0.0%	0.0%
Satisfaction with the cost of using the border	33.3%	33.3%	22.2%	11.1%	0.0%
How satisfied are you with the facilities at the border	33.3%	33.3%	11.1%	11.1%	11.1%
Satisfaction with the joint examination	66.7%	11.1%	11.1%	11.1%	0.0%
Satisfaction with the decreased service time	33.3%	44.4%	11.1%	11.1%	0.0%
Satisfaction with the changes in security	55.6%	33.3%	11.1%	0.0%	0.0%
Satisfaction with the search by gender	33.3%	55.6%	11.1%	0.0%	0.0%
Satisfaction with the cleanliness	22.2%	77.8%	0.0%	0.0%	0.0%
Satisfaction with the toilets for males/females	44.4%	44.4%	11.1%	0.0%	0.0%
Satisfaction with the warehouse facilities	77.8%	0.0%	22.2%	0.0%	0.0%
Satisfaction with the signage	44.4%	44.4%	11.1%	0.0%	0.0%
Satisfaction with the parking facilities	33.3%	55.6%	0.0%	11.1%	0.0%
Satisfaction with the separation of passengers and goods	66.7%	11.1%	11.1%	11.1%	0.0%
Satisfaction with the HIV signs	22.2%	33.3%	44.4%	0.0%	0.0%
Satisfaction with the disabled facilities	22.2%	55.6%	22.2%	0.0%	0.0%
Overall level of satisfaction	**43.8%**	**37.5%**	**13.2%**	**4.9%**	**0.7%**

7.1.3 User Perceptions on the Business Competitiveness

The survey shows that, Kabanga OSBP traders generally agree (overall average perception rate of 88.9%) that there is improved business competitiveness at firm level following construction of OSBP. The key business competitive elements reported here include amongst others easy coordination of border agencies via the lead agency (TRA), improved technology transfer, knowledge and skills, increased transport turnaround time, increased trading volume, improved safety and security of goods and improved joint problem-solving collaborations amongst traders. Neutral rating accounts for an average of 10.5% which indicate that traders have not seen a difference in terms of

improved business competitiveness following construction of OSBP. Disagreement rating were also reported at the rate of 0.7% indicating there are minor improvements needed especially on price fairness. This justifies that, despite the marginal neutral rating, traders agree that, business competitiveness have generally improved following construction of Kabanga OSBP (**Table: 7.1 – 4**).

Table: 7.1 – 4: User Perceptions on the Improved Business Competitiveness

User Perception	Strongly Agree	Agree	Moderately Agree	Disagree	Strongly Disagree
There is easy coordination of border agencies	44.4%	55.6%	0.0%	0.0%	0.0%
There is an increased transport turnaround time	33.3%	44.4%	22.2%	0.0%	0.0%
Sales are more compared to previous (trading volumes have increased)	44.4%	55.6%	0.0%	0.0%	0.0%
Trading are now simplified	33.3%	55.6%	11.1%	0.0%	0.0%
Business have improved	66.7%	11.1%	22.2%	0.0%	0.0%
Better profits margins are realized	33.3%	55.6%	11.1%	0.0%	0.0%
Business operation costs are reduced	22.2%	55.6%	22.2%	0.0%	0.0%
Simplified access to inputs is enjoyed	33.3%	66.7%	0.0%	0.0%	0.0%
Transfer of technology, knowledge and skills have improved	44.4%	44.4%	11.1%	0.0%	0.0%
There an increased price fairness	11.1%	66.7%	11.1%	11.1%	0.0%
There is reduced business risks	44.4%	55.6%	0.0%	0.0%	0.0%
There is improved ability to employ new workers	22.2%	66.7%	11.1%	0.0%	0.0%
There is improved safety and security of goods	66.7%	22.2%	11.1%	0.0%	0.0%
There is improved quality of products	66.7%	11.1%	22.2%	0.0%	0.0%
There is increased business experiences	44.4%	44.4%	11.1%	0.0%	0.0%
There is improved ability to access credits	11.1%	77.8%	11.1%	0.0%	0.0%
There is improved joint problem-solving collaboration among traders	66.7%	33.3%	0.0%	0.0%	0.0%
Overall Rating	**40.5%**	**48.4%**	**10.5%**	**0.7%**	**0.0%**

7.1.4 Perceived Impact on Women Enterprises Competitiveness

Construction of Kabanga OSBP is perceived to have more impact/outcome to women enterprises competitiveness than when there was no facility. Based on the survey findings, traders generally agree (overall average perception rate of 88.9%) that construction of Kabanga OSBP has benefited more women enterprises. While none of the traders disagreed with this notion, neutral rating accounts for an average of 11.1% which indicate that, there have been no difference before and after construction of the OSBP on women enterprises competitiveness (**Table: 7.1 – 5**).

Table: 7.1 – 5: Perceived Impact of Kabanga OSBP on Women Enterprises

User Perception	Strongly Agree	Agree	Moderately Agree	Disagree	Strongly Disagree
Women have widened types of their cross-border business	55.6%	44.4%	0.0%	0.0%	0.0%
Women have increased access to vending spaces	66.7%	11.1%	22.2%	0.0%	0.0%
Women have improved their business confidence	77.8%	22.2%	0.0%	0.0%	0.0%
Women have improved their availability to operate businesses	55.6%	33.3%	11.1%	0.0%	0.0%
Women have enabled to timely reaching customers	55.6%	33.3%	11.1%	0.0%	0.0%
There are improved distribution channels of products by women	33.3%	44.4%	22.2%	0.0%	0.0%
Women have improved in export/import capacity	33.3%	55.6%	11.1%	0.0%	0.0%
Women are now having improved trading operations	77.8%	11.1%	11.1%	0.0%	0.0%
Women experiences on cross border business is improved	66.7%	22.2%	11.1%	0.0%	0.0%
Overall Rating	**58.0%**	**30.9%**	**11.1%**	**0.0%**	**0.0%**

7.2 Impact/Outcome Assessment

7.2.1 Impact/Outcome on Business Competitiveness

The impact/outcome of Kabanga OSBP in terms of business competitiveness is obvious in terms of reduced time of export/import as discussed in chapter three above following time and traffic surveys done in 2011 and 2016. The OSBP also contributed to reduced exports/import procedures and so reduced cost of exportation and importation due to pre-arrival declaration of which about 95% of trucks using the facility almost complete the documentation process prior to arrival at the border which reduces the waiting time at the border. Likewise, with OSBP, documentation is only done at destination country so exporting country only retrieves information from destination country unlike without OSBP documentation were done at both exporting and importing country so creating unnecessary delays and increased clearing costs.

The joint verification reduces cargo double handling and unnecessary delays thus reduced cost of imports/exports and improved work relationship between the two countries (Tanzania and Burundi). With Single Customs Territory (SCT), verification and clearance of cargo has improved further. Users pointed out that, the joint verification, also improved transparency in documentation and clearance procedures. However, the bank does not operate 24hrs for easy of agents to make payments anytime. At firm level, the facility/OSBP has improved competitiveness to private sector due to reduced smuggling (on approved routes/on other unofficial routes) due to joint verification with about 19 institutions, presence of anti-smuggling teams which contributed to reduced corruption and presence of simplified clearance procedures for Small Medium Enterprises (SMEs) where by the clearance process do not require hiring of clearance agency. Stakeholders point out that, the facility also increased savings in time and expenditure to driver as the SCT, allows payment of tax for the cargo even prior to transportation (thus no delays at the border).

7.2.2 Impact/Outcome on Women Enterprises

Women traders in Kabanga benefit from traders from Burundi who came to shop in Tanzania and retail in Burundi (shop products and domestic goods). Women traders from Tanzania on the other hand, purchases avocados (fruits) in Burundi to sale in Tanzania. At the border, due to OSBP incentives, they only pay for phytosanitary fee which is about TZS 18,000/ton (No import duty, no VAT). Construction of the Kabanga OSBP therefore has benefited significantly women enterprises in Kabanga and Bobelo townships.

The simplified import/export procedures for SMEs whose consignment value is less or equal to USD 2,000 have encouraged more women to venture into cross border trade and those who were trading via smuggling to formalised use of the border as the cost of using the border is reduced coupled with increased transparency. Stakeholders, consultations in Kabanga/Tanzania and Kobelo/Burundi also show that, women enterprises have benefited a lot on food vending businesses border users especially truck drivers.

7.2.3 Impact/Outcome on Auxiliary Benefits of the OSBP

Increased Government Revenue

Kabanga OSBP started operations on 31st August 2016. Although, revenue data couldn't be retrieved prior to year 2014, prior to construction of OSBP, the facility revenue increased from TZS 195.13 million recorded in 2014 to TZS 400.20 million recorded in 2015. After construction, the facility revenue rose steadily from TZS 222.54 million recorded in 2017 to TZS 636.51 million recorded in 2021 (**Fig. 7.2 – 1**).

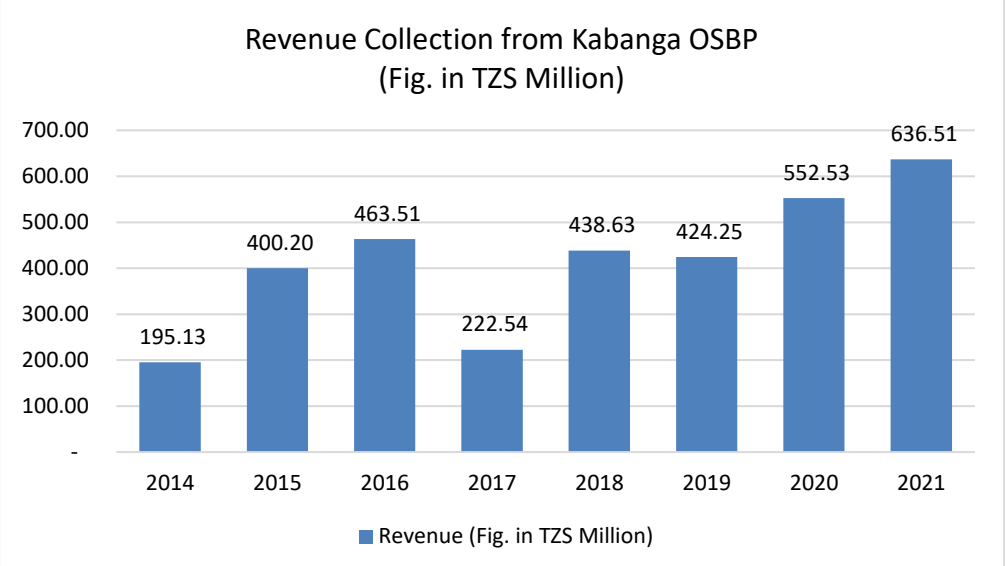


Fig. 7.2 – 1: Revenue Collection from Kabanga OSBP
Source: TRA & Consultant Evaluation, 2022

Job Creation, Products Price Changes and Improved Livelihood of the Surrounding Community

Similarly, to other OSBP, Kabanga OSBP have wider impact to the community in Kabanga/Tanzania and Kobelo/Burundi. Consultations with stakeholders show that that the OSBP increased employment to various subsectors including, food venders, accommodation venders, and clearing agents amongst others. These impacts are direct proportion to the nature of businesses done at the border. The survey indicates that, at Kabanga OSBP the typical business for the community around includes other businesses which accounts for 56.3% i.e., bodaboda, loading and offloading of cargo, food venders, etc. Foodstuffs ranks second at 18.8% followed by textile and clothing at 12.5%. Other businesses include agricultural produce and machines and appliances both at 6.5% respectively (**Fig. 7.2 – 2**).

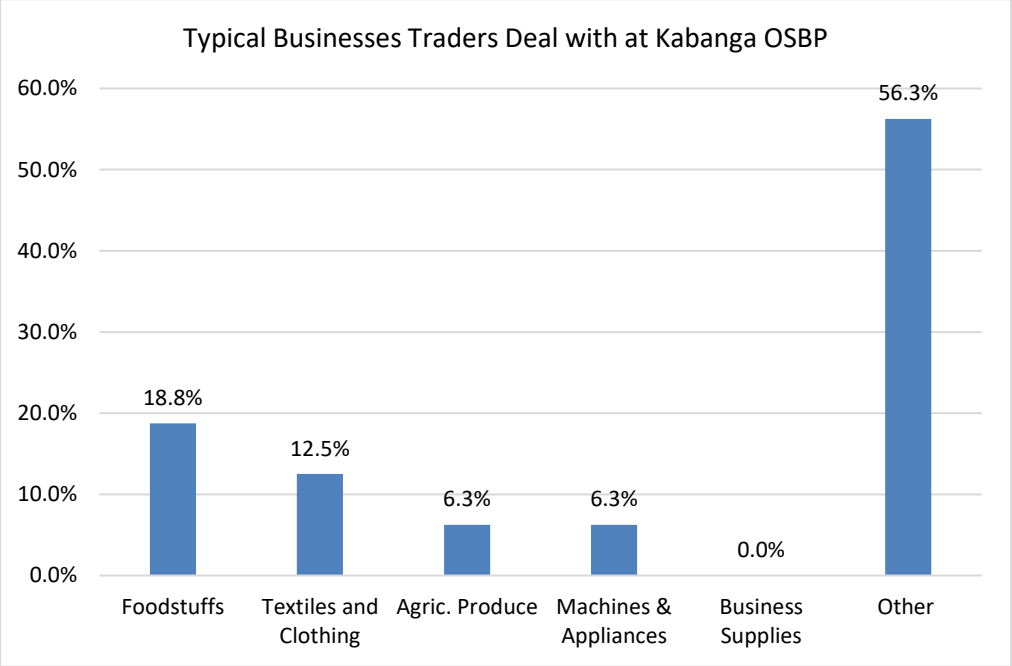


Fig. 7.2 – 2: Typical Businesses Traders Deal with at Kabanga OSBP

On the government sector, the OSBP increased employment as all government staff that are placed at Kabanga are also required to be placed at Kobelo for joint clearance and verification process. To Clearing Agents, stakeholders point out that, construction of OSBP increased the number of Clearing Agents from 4 - 5 to 10 - 12 Agents.

On product prices, the OSBP has contributed to reduced prices due to some incentives i.e., simplified clearance procedures especially on women which reduced cost of import/exports, increased number of suppliers (demand and supply issues) as well as reduced bureaucracy which reduced cost of import/export. As a result, the price for soap bar for instance, reduced from TZS 9,500 – 10,500/carton to TZS 8,000 – 8,500/carton after construction of

OSBP. Similarly, availability of these soaps in the market increased after operationalisation of the OSBP.

Discussions with the community around show that, livelihood also improved significantly as can be manifested by increasing number of better houses, accommodation services and use of iron sheets instead of grass thatched houses. The OSBP increased property value in the area due to increased population and increased informal sector business like bodaboda, food venders, cleaners, gardening, and banking services. Other outcome includes increased number of hotels/guests, number of transporters, forex and shops, increased respect between traders and drivers as drivers can be assisted by customs in charge to claim their statutory from their employers (the OSBP is used as a point of mediation amongst stakeholders) (**Annex 7.2 – 1**).

7.3 Correlation between Improved Infrastructure and Import/Export Volumes

As discussed herein, Kabanga OSBP started operations on 31st August 2016. Similar to other OSBPs, a trend analysis over time have been done whereby import/export volume before (i.e., 2014 – 2015) and after (i.e., 2017 – 2021) infrastructure improvement was plotted/fitted with a trend line and an R-square to show how significant is the trend. The analysis shows that, prior to construction of OSBP imports volume data had a significant increasing trend while exports had a significant decreasing trend (i.e., $R^2 = 1$). However, after construction of OSBP, both import and exports had an increasing trend of which exports had a significant increasing trend while imports not (i.e., $R^2 = 0.87$ and $R^2 = 0.13$ respectively). In view of the aforementioned, it can be concluded that, correlation with time to gauge the effect due to change of infrastructure occurred over time especially with exports volume (**Fig. 5.3 – 1 & 2**).

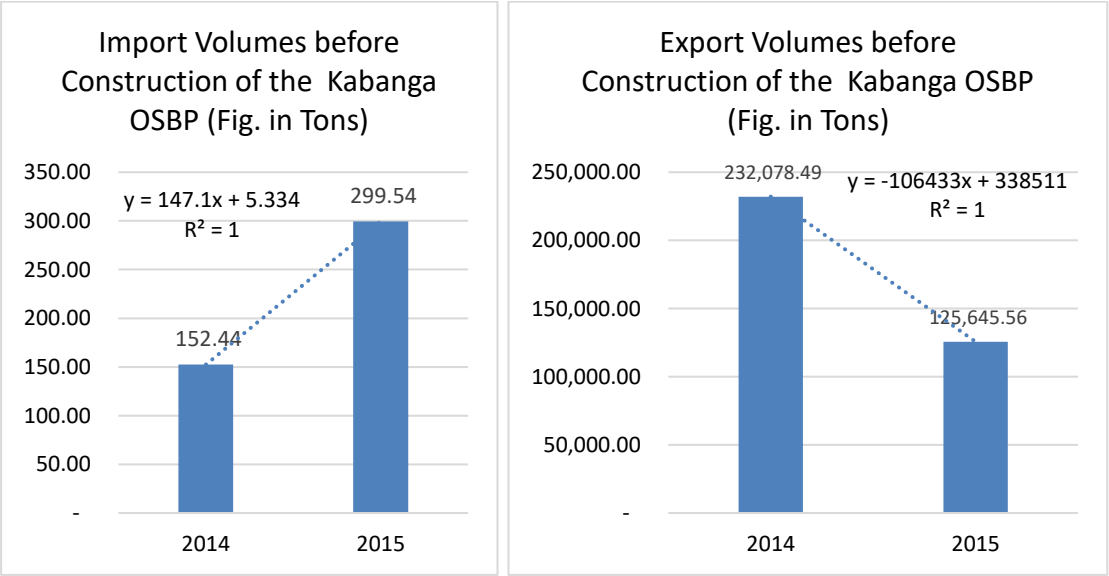


Fig. 7.3 – 1: Import and Export Volumes for Kabanga OSBP
Source: TRA & Consultant Evaluation, 2022

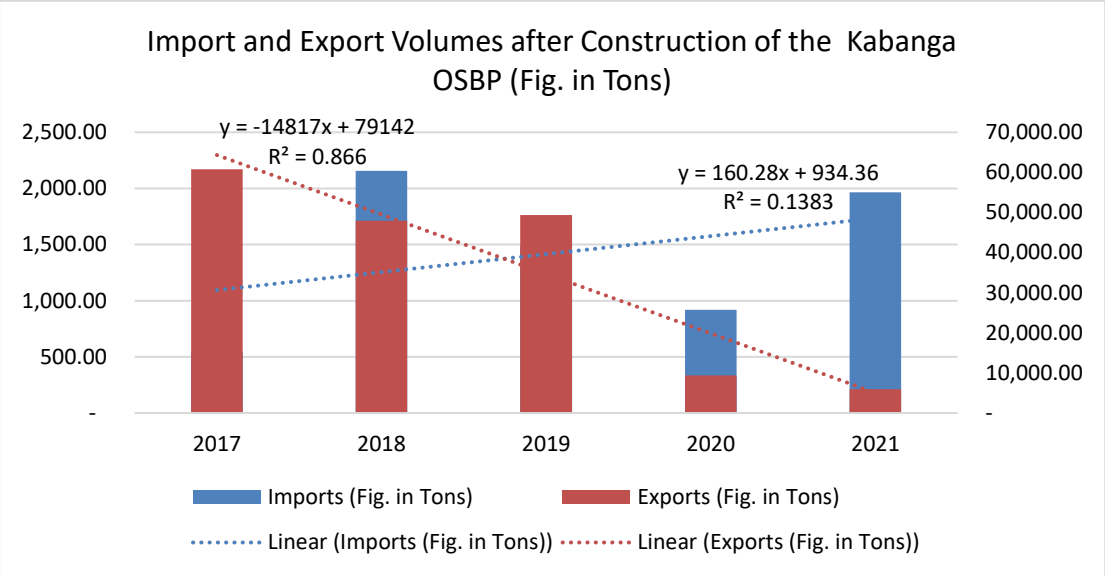


Fig. 7.3 – 2: Import and Export Volumes for Kabanga OSBP
Source: TRA & Consultant Evaluation, 2022

7.4 Key Challenges that Impact Border Operation Efficiencies and Way Forward

There are key challenges that impact border operations efficiency. Discussion with the lead agency (TRA – Kabanga OSBP) officials and key stakeholders recommended improvement/provision of the following facilities/equipment to improve efficiency:

i) Lack of off-loading equipment: Provide off-loading equipment i.e., forklift and heavy-duty cranes for the needy at cost;

ii) Absence of reliable water supply and frequent power interruption disrupts office operations: The government should invest in water supply infrastructure at Kabanga area rather than relying on unreliable private entrepreneur. Similarly, the government through TANESCO should strengthen power supply in Kabanga area from the ongoing Rusumo hydro power project;

iii) Narrow road coupled with limited truck parking yard creates longer queues in Kobelo side: The government of Tanzania through bilateral relations should advocacy for Burundi government to expand the truck parking yard and the approach road towards Kobelo OSBP to at least three (3) lanes from the existing one (1) lane to allow overtaking to improve traffic flow;

iv) Absence of scanners for quick verification of homogenous cargo and empty trucks: Construct and install of modern scanner to speedup cargo verification especially for homogeneous cargo including empty trucks;

v) Limited operations from the offices at the entry and exit point on the Tanzania side due to absence of adequate space: Offices at the entry and exit point on Tanzania and Burundi/Kobelo side were designed as guard house rather than offices as a result all operations ought to be done at the entry gate on the Tanzania side are done inside the main OSBP building. At the exit gate and in

Kobelo, officers are squeezed in the guard house. It is recommended to construct adequate offices at the entry and exit point for the target gate operations;

vi) Absence of office for other key OSBP stakeholders: Provide office accommodation within the OSBP for other key stakeholders such as TAFFA, TCCIA and Drivers association to reduce delays in documentation;

vii) Absence of Laboratory for some key agencies i.e., Ministry of Agriculture and Tanzania Bureau of Standards (TBS) leads to doubtful cargo verification: Construct modern laboratory for the key agencies to ensure efficiency cargo verification; and

viii) Absence of 24hour service for the Bank: Ensure the Bank operates 24hrs similar to the OSBP operation schedule.

Stakeholders, are of the opinion that, the mobile heavy-duty crane is crucial for offloading containers in case of conflicts between transporters and cargo owners. Similarly, the crane can be used for rescuing situation in case of accidents which creates jam at the OSBP.

8.0 FINDINGS: HOLILI/TAVETA OSBP

8.1 Holili/Taveta OSBP Traders Survey

8.1.1 Description of Respondents

Firm Size, Structure and Ownership Disaggregated by Gender

At Holili/Taveta OSBP, 12 traders using the border were interviewed. Most of these traders have been in business for at least 10 years (66.7%) and have been using the border for at least 6 - 10 years (41.7%). This implies that, at least majority of traders have adequate experience in the sector. The survey shows that most of these businesses are small to large size (66.7%). All of these businesses operate as partnership and/or limited liability companies mostly run by men (75.0%) (**Table: 8.1 - 1 & 2 and Fig: 8.1 – 1 & 2).**

Table: 8.1 – 1: Firm Size Vs Year of Establishment

Year of Establishment	Firm Size	Respondent	Percent	Total Respondent	Establishment Proportion
3 - 5 Years	Small (5-19)	1	8.3%	1	8.3%
5 - 10 Years	Small (5-19)	3	25.0%	3	25.0%
> 10 Years	Small (5-19)	4	33.3%	8	66.7%
	Medium (20-99)	2	16.7%		
	Large (>100)	2	16.7%		
Grand Total		**12**	**100.0%**	**12**	**100%**

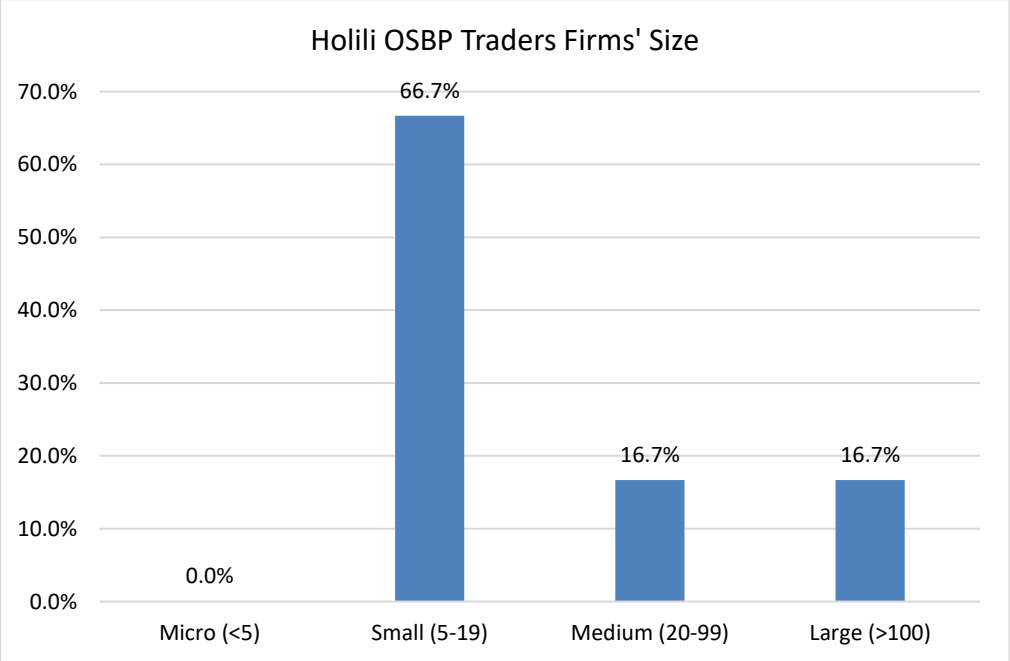


Fig. 8.1 – 1: Holili/Taveta OSBP Traders Firm Size

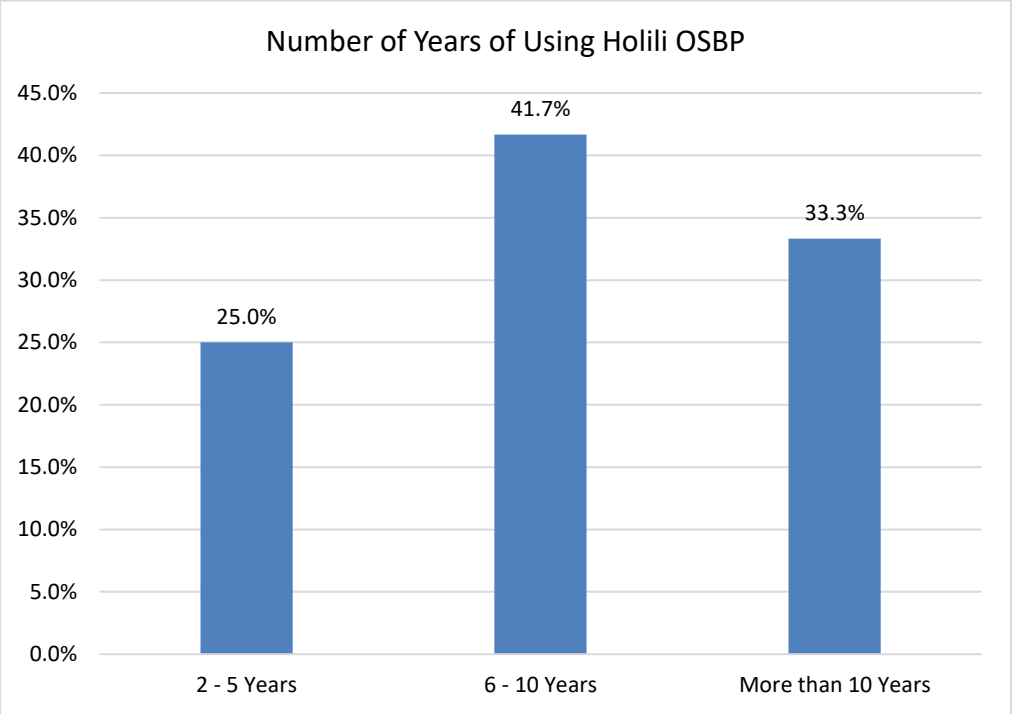


Fig. 8.1 – 2: Holili/Taveta OSBP Traders Number of Years of Using the Border

Table: 8.1 – 2: Firm Structure and Ownership Disaggregated by Gender

Business Ownership Structure	Gender of the Firm Owner	Respondent	Percent
Owned by more than one person	Equal number of Female and Male	1	8.3%
	Majority are female	2	16.7%
	Majority are Male	9	75.0%
Grand Total		**12**	**100.0%**

Traders' Sector of Business

The survey shows that, most of Holili/Taveta OSBP traders interviewed engage in businesses of agriculture subsectors which account for 58.3%. Other subsectors include manufacturing and services both at 16.7% and others i.e., processing (**Fig. 8.1 – 3**).

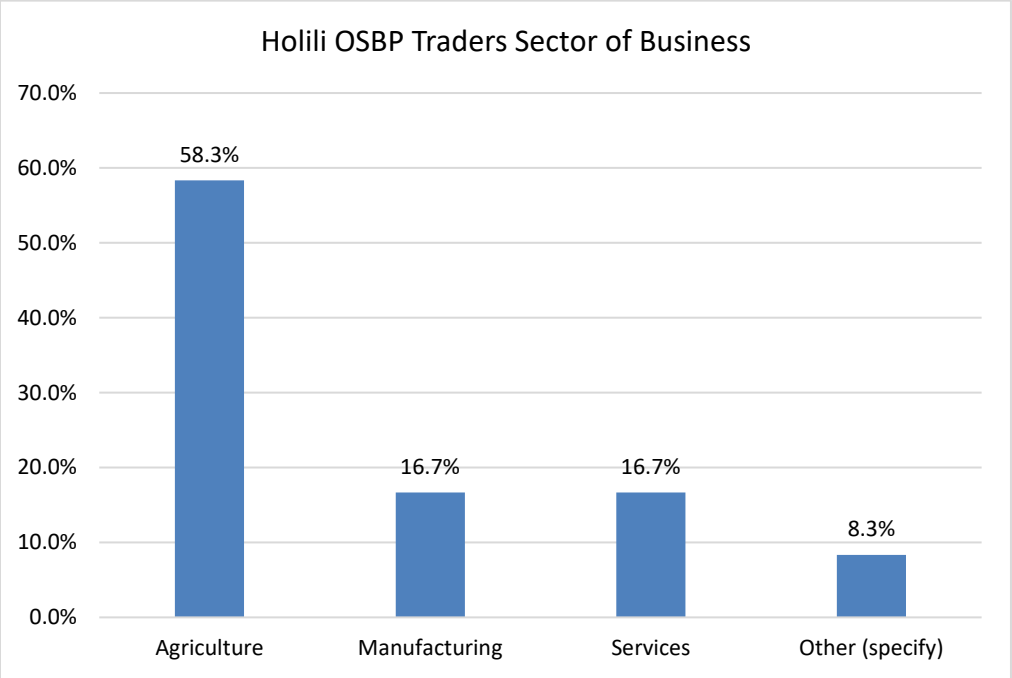


Fig. 8.1 – 3: Holili/Taveta OSBP Traders Sector of Business

Traders Line of Business

The survey results show that, most of Holili/Taveta OSBP traders interviewed are in the line of business of exportation (43.3%). Wholesale ranks second at 19.2% followed by importation at 15.4%. Manufacturing and production accounts for 11.5% (**Fig. 8.1 – 4**).

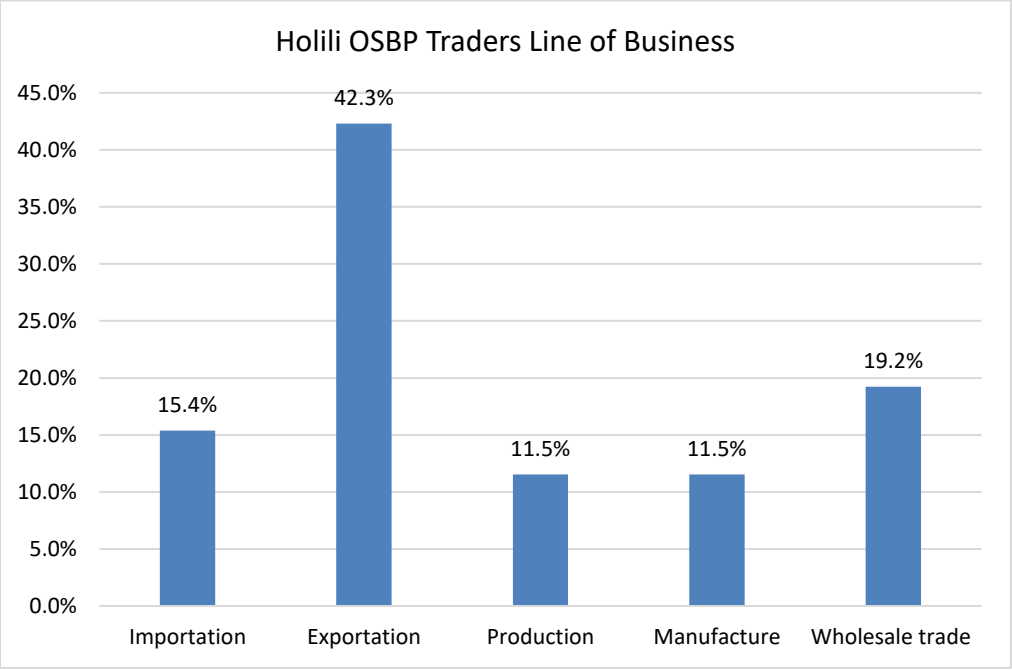


Fig. 8.2 – 2: Holili/Taveta OSBP Traders Line of Business

8.1.2 Level of Satisfaction Following Construction of the OSBP

The survey indicates that, Holili/Taveta OSBP traders are generally satisfied (overall average satisfaction rate of 80.2%) with the OSBP facilities, clearance procedures and cost of using the facility. Neutral rating accounts for an average of 18.8% which indicate that traders have not seen a difference in border improvement. Dissatisfaction rating is also marginally reported at an average of 0.1% signifying there are minor improvement needed especially on separation of passengers and goods, and search by gender amongst others (**Table: 8.1 – 3**).

Table: 8.1 – 3: Level of Satisfaction with the Port Improvement Interventions

Satisfaction Criterias	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
Satisfaction with the time taken for documentary clearance for goods	33.3%	58.3%	8.3%	0.0%	0.0%
Satisfaction with the import/export procedures	50.0%	33.3%	16.7%	0.0%	0.0%
Satisfaction with the cost of using the border	16.7%	83.3%	0.0%	0.0%	0.0%
How satisfied are you with the facilities at the border	8.3%	50.0%	41.7%	0.0%	0.0%
Satisfaction with the joint examination	16.7%	58.3%	25.0%	0.0%	0.0%
Satisfaction with the decreased service time	25.0%	58.3%	16.7%	0.0%	0.0%
Satisfaction with the changes in security	41.7%	41.7%	16.7%	0.0%	0.0%
Satisfaction with the search by gender	58.3%	25.0%	8.3%	8.3%	0.0%
Satisfaction with the cleanliness	50.0%	41.7%	8.3%	0.0%	0.0%
Satisfaction with the toilets for males/females	33.3%	50.0%	16.7%	0.0%	0.0%
Satisfaction with the warehouse facilities	33.3%	16.7%	50.0%	0.0%	0.0%
Satisfaction with the signage	58.3%	25.0%	16.7%	0.0%	0.0%
Satisfaction with the parking facilities	58.3%	33.3%	8.3%	0.0%	0.0%
Satisfaction with the separation of passengers and goods	33.3%	50.0%	8.3%	8.3%	0.0%
Satisfaction with the HIV signs	16.7%	50.0%	33.3%	0.0%	0.0%
Satisfaction with the disabled facilities	33.3%	41.7%	25.0%	0.0%	0.0%
Overall level of satisfaction	**35.4%**	**44.8%**	**18.8%**	**1.0%**	**0.0%**

8.1.3 User Perceptions on the Business Competitiveness

The survey shows that, Holili/Taveta OSBP traders generally agree (overall average perception rate of 83.8%) that there is improved business competitiveness at firm level following construction of OSBP. The key business competitive elements reported here include amongst others easy coordination of border agencies via the lead agency (TRA), increased transport turnaround time, increased trading volume, improved technology transfer, knowledge and skills, improved safety and security of goods and improved joint problem-solving collaborations amongst traders. Neutral rating accounts for an average of 15.7% which indicate that traders have not seen a difference in terms of improved business competitiveness following construction of OSBP. Disagreement rating were also reported at the rate of 0.5% indicating there are minor improvements needed especially on better profit margins realisation. This justifies that, despite the marginal neutral rating, traders

agree that, business competitiveness have generally improved following construction of Holili/Taveta OSBP (**Table: 8.1 – 4**).

Table: 8.1 – 4: User Perceptions on the Improved Business Competitiveness

User Perception	Strongly Agree	Agree	Moderately Agree	Disagree	Strongly Disagree
There is easy coordination of border agencies	50.0%	50.0%	0.0%	0.0%	0.0%
There is an increased transport turnaround time	25.0%	75.0%	0.0%	0.0%	0.0%
Sales are more compared to previous (trading volumes have increased)	33.3%	33.3%	33.3%	0.0%	0.0%
Trading are now simplified	41.7%	41.7%	16.7%	0.0%	0.0%
Business have improved	41.7%	41.7%	16.7%	0.0%	0.0%
Better profits margins are realized	33.3%	50.0%	8.3%	8.3%	0.0%
Business operation costs are reduced	25.0%	58.3%	16.7%	0.0%	0.0%
Simplified access to inputs is enjoyed	33.3%	50.0%	16.7%	0.0%	0.0%
Transfer of technology, knowledge and skills have improved	91.7%	8.3%	0.0%	0.0%	0.0%
There an increased price fairness	33.3%	33.3%	33.3%	0.0%	0.0%
There is reduced business risks	33.3%	41.7%	25.0%	0.0%	0.0%
There is improved ability to employ new workers	25.0%	41.7%	33.3%	0.0%	0.0%
There is improved safety and security of goods	50.0%	50.0%	0.0%	0.0%	0.0%
There is improved quality of products	50.0%	25.0%	25.0%	0.0%	0.0%
There is increased business experiences	50.0%	41.7%	8.3%	0.0%	0.0%
There is improved ability to access credits	33.3%	41.7%	25.0%	0.0%	0.0%
There is improved joint problem-solving collaboration among traders	33.3%	58.3%	8.3%	0.0%	0.0%
Overall Rating	**40.2%**	**43.6%**	**15.7%**	**0.5%**	**0.0%**

8.1.4 Perceived Impact on Women Enterprises Competitiveness

Construction of Holili/Taveta OSBP is perceived to have more impact/outcome to women enterprises competitiveness than when there was no facility. Based on the survey findings, traders moderately agree (overall average perception rate of 67.6%) that construction of Holili/Taveta OSBP has benefited more women enterprises. While marginal rating on disagreement is report at 1.9% mainly on timely reaching to customers and improved distribution channels of products by women, neutral rating accounts for an average of 30.6% which indicate that, there have been no difference before and after construction of the OSBP on women enterprises competitiveness (**Table: 8.1 – 5**).

Table: 8.1 – 5: Perceived Impact of Holili/Taveta OSBP on Women Enterprises

User Perception	Strongly Agree	Agree	Moderately Agree	Disagree	Strongly Disagree
Women have widened types of their cross-border business	33.3%	41.7%	25.0%	0.0%	0.0%
Women have increased access to vending spaces	33.3%	41.7%	25.0%	0.0%	0.0%
Women have improved their business confidence	33.3%	41.7%	25.0%	0.0%	0.0%
Women have improved their availability to operate businesses	41.7%	16.7%	41.7%	0.0%	0.0%
Women have enabled to timely reaching customers	50.0%	8.3%	33.3%	8.3%	0.0%
There are improved distribution channels of products by women	25.0%	41.7%	25.0%	8.3%	0.0%
Women have improved in export/import capacity	25.0%	41.7%	33.3%	0.0%	0.0%
Women are now having improved trading operations	25.0%	33.3%	41.7%	0.0%	0.0%
Women experiences on cross border business is improved	41.7%	33.3%	25.0%	0.0%	0.0%
Overall Rating	**34.3%**	**33.3%**	**30.6%**	**1.9%**	**0.0%**

8.2 Impact/Outcome Assessment

8.2.1 Impact/Outcome on Business Competitiveness

The impact/outcome of Holili OSBP in terms of business competitiveness is obvious in terms of reduced time of export/import as discussed in chapter three above following time and traffic surveys done in 2011 and 2015. The OSBP also contributed to reduced exports/import procedures and so reduced cost of exportation and importation due to pre-arrival declaration of which about 95% of trucks using the facility almost complete the documentation process prior to arrival at the border which reduces the waiting time at the border. Likewise, with OSBP, documentation is only done at destination country so exporting country only retrieves information from destination country unlike without OSBP documentation were done at both exporting and importing country so creating unnecessary delays and increased clearing costs.

The joint verification reduces cargo double handling and unnecessary delays thus reduced cost of imports/exports and improved work relationship between the two countries (Tanzania and Kenya). With Single Customs Territory (SCT), verification and clearance of cargo has improved further. Users pointed out that, the joint verification, also improved transparency in documentation and clearance procedures thus reducing corruption. However, despite that the OSBP operates 24hrs, the bank does not operate 24hrs for easy of agents to make payments anytime. At firm level, the facility/OSBP has improved competitiveness to private sector due to reduced smuggling (on approved routes/on other unofficial routes) due to joint verification with about 19 institutions, presence of anti-smuggling teams which contributed to reduced corruption and presence of simplified clearance procedures for Small Medium Enterprises (SMEs) where by the clearance process do not require hiring of clearance agency. Stakeholders point out that, the facility also increased savings in time and expenditure to driver as the SCT, allows payment of tax for the cargo even prior to transportation (thus no delays at the border).

Focus group discussions with Holili border users argue further that, despite the success story, still there are relatively longer queues in Kenya side due to system delays in document processing. The average truck dwell time in Kenya is between 1 – 3days while in Tanzania it is hardly 1day except for transit to Rwanda and Burudi which takes between 1 – 3 days. The reason for such delays is pointed out to be the issue of route permit via Arusha, Singida, Tabora to Rusumo. But Via Segera, Chalinze, Morogoro, Dodoma is open in TANCIS system. Stakeholders perceive this as Non Tarif Barrier (NTB) on Tanzanian side (discourages use of Mombasa port as opposed to Dar Port).

8.2.2 Impact/Outcome on Women Enterprises

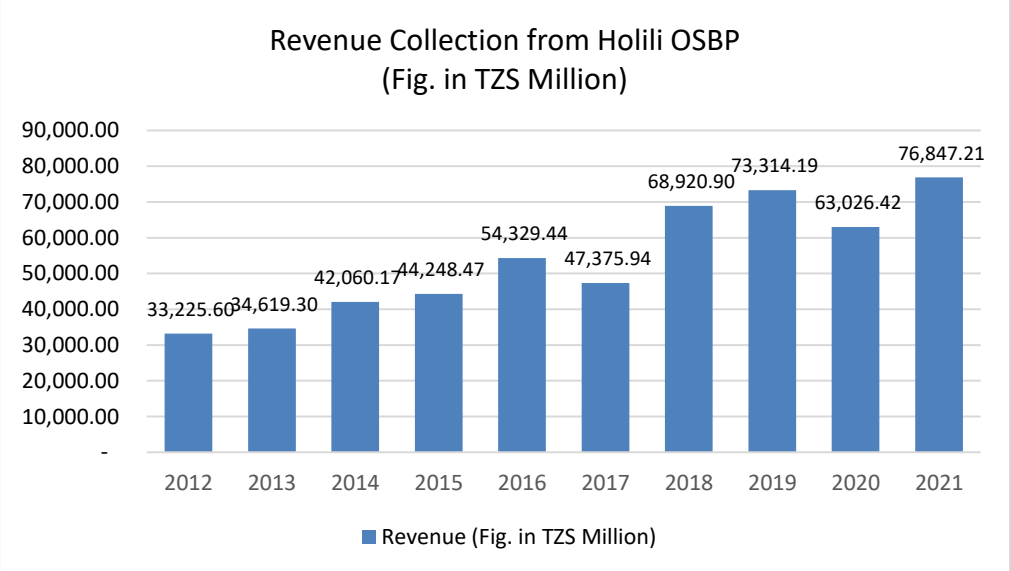
Similarly, to other OSBPs, Holili OSBP has huge impact on women enterprises. Discussions with TRA officials, clearing agents and women traders themselves reveal that, women have significantly benefited from Holili OSBP. The simplified import/export procedures under CPS have encouraged more women to venture into cross border trade and those who were trading via smuggling to formalised use of the border as the cost of using the border is reduced coupled with increased transparency.

Border incentives such as zero import duty for goods from within East African Community (EAC) and zero import duty and VAT for fruits import/export within EAC have also encourages more women into cross border trade. On the other hand, women enterprises especially food venders have benefited a lot from customers using the border especially the truck drivers. It is reported further that, the number of women traders have increased due to improved security as the road to Kenya passes through the OSBP which is secure. Similarly, the increase in the number of women clearing agents have also improved business confidence amongst women and so the use of the facility.

8.2.3 Impact/Outcome on Auxiliary Benefits from the OSBP

Increased Government Revenue

Holili OSBP is the first OSBP in Tanzania. It started operations on 30th April 2015. Prior to construction of OSBP, the facility revenue increased from TZS 33,225.60 million recorded in 2012 to TZS 42,060.17 million recorded in 2014. After construction, the facility revenue rose from TZS 54,329.44 million recorded in 2016 to TZS 76,847.21 million recorded in 2021 (**Fig. 7.2 – 1**).



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Similarly, to other OSBP, Holili OSBP have wider impact to the community in Holili/Tanzania and Taveta/Kenya. Consultations with stakeholders show that that the OSBP increased employment to various subsectors including, food venders, accommodation venders, and clearing agents amongst others. These impacts are direct proportion to the nature of businesses done at the border. The survey shows that, at Holili OSBP the typical business for the community around includes foodstuffs which account for 23.8% business supplies which account for 33.3% followed other businesses which account for 25% i.e., bodaboda, loading and unloading of cargo, food venders, etc. Agricultural produce account for 13.9% while business supplies 11.1%. Other businesses include textile and clothing, and machines and appliances both at 8.3% respectively (**Fig. 8.2 – 2**).

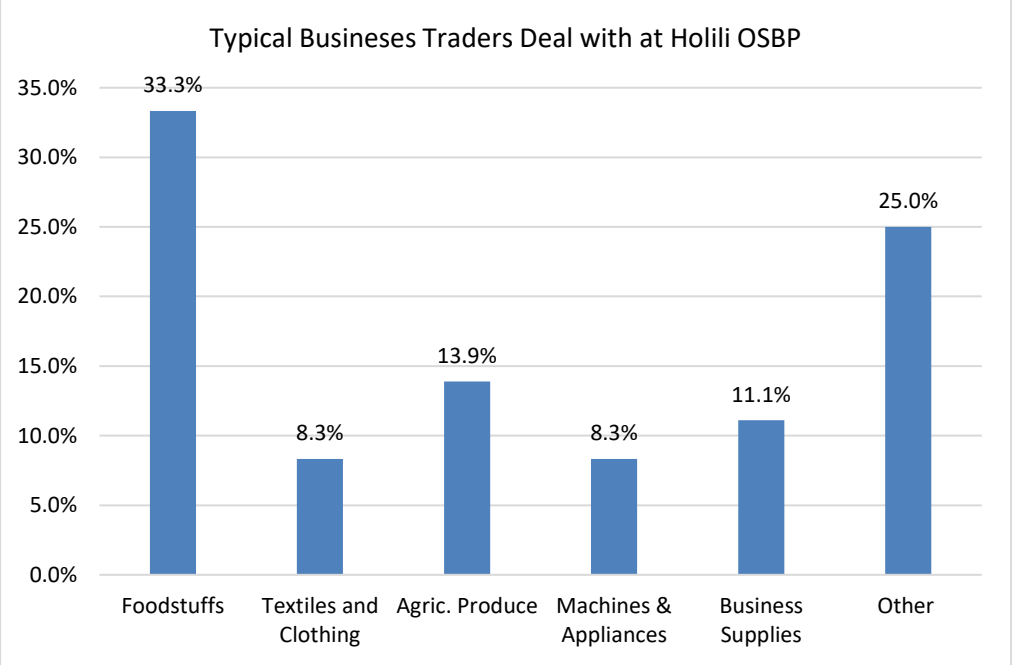

Fig. 8.2 – 2: Typical Businesses Traders Deal with at Tunduma OSBP

On the government sector, the OSBP increased employment as all government staff that are placed at Holili are also placed at Taveta for joint clearance and verification processes as per the OSBP requirements. To Clearing Agents, stakeholders point out that, construction of OSBP increased the number of Clearing Agents from 20 to 70 Agents before and after operationalization of OSBP respectively.

On product prices, the OSBP has contributed to reduced prices due to some incentives i.e., simplified clearance procedures especially on women which reduced cost of import/exports, increased number of suppliers (demand and supply issues) as well as reduced bureaucracy which reduced cost of import/export. As a result, the price for soap bar for instance, reduced from TZS 2,500/pc to TZS 2,000/pc before and after operationalisation of OSBP respectively.

Discussions with the community around show that, livelihood also improved due to increased income from food venders, guest houses, bars, and transport services i.e., boda-bodas. Similarly, increase in cross border businesses especially maize, horticultural and banana also increased income for the community around the OSBP from both Tanzania and Kenya. Other outcome includes increased number of hotels/guests, number of transporters, forex and shops, increased respect between traders and drivers as drivers can be assisted by customs in charge to claim their statutory from their employers (the OSBP is used as a point of mediation amongst stakeholders) (**Annex 8.2 – 1**).

8.3 Correlation between Improved Infrastructure and Import/Export Volumes

As discussed herein, Holili/Taveta OSBP started operations on 30th April 2015. Similar to other OSBPs, a trend analysis over time have been done whereby import/export volume before (i.e., 2012 – 2014) and after (i.e., 2016 – 2021) infrastructure improvement was plotted fitted with a trend line and an R-square to show how significant is the trend. The analysis shows that, prior to construction of OSBP both imports and exports volume had an increasing trend however, exports had a significant increasing trend (i.e., R^2 = 81 and R^2 = 37 for exports and imports respectively). Similarly, after construction of OSBP, both import and exports had an increasing trend of which exports had a significant increasing trend while imports not (i.e., R^2 = 0.87 and R^2 = 0.00 for respectively). In view of the aforementioned, it can be concluded that, correlation with time to gauge the effect due to change of infrastructure occurred over time especially with exports volume (**Fig. 5.3 – 1 & 2**).

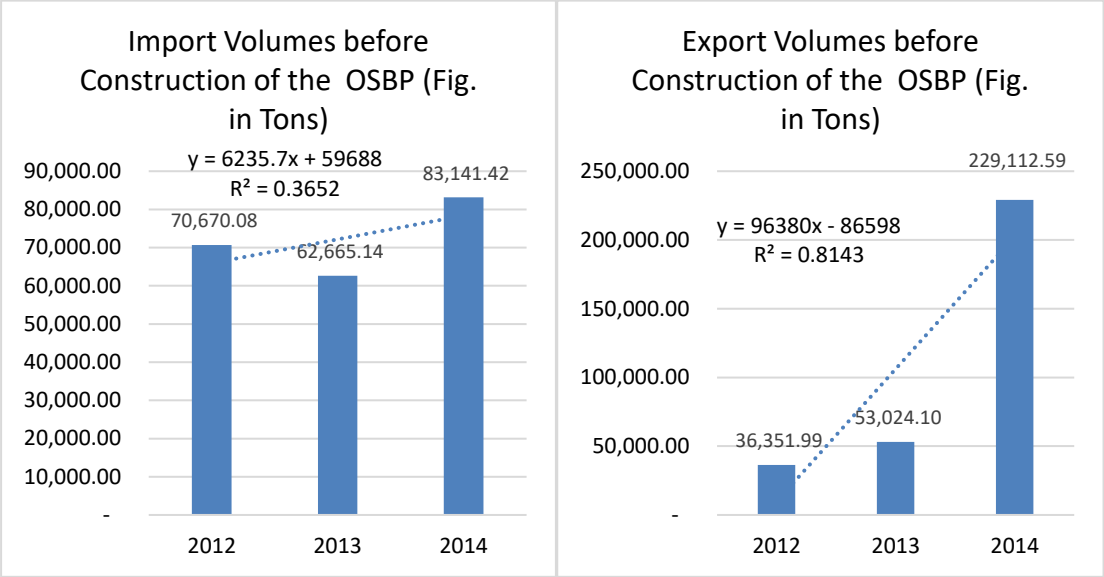

Fig. 8.3 – 1: Import and Export Volume before Construction of OSBP
Source: TRA & Consultant Evaluation, 2022

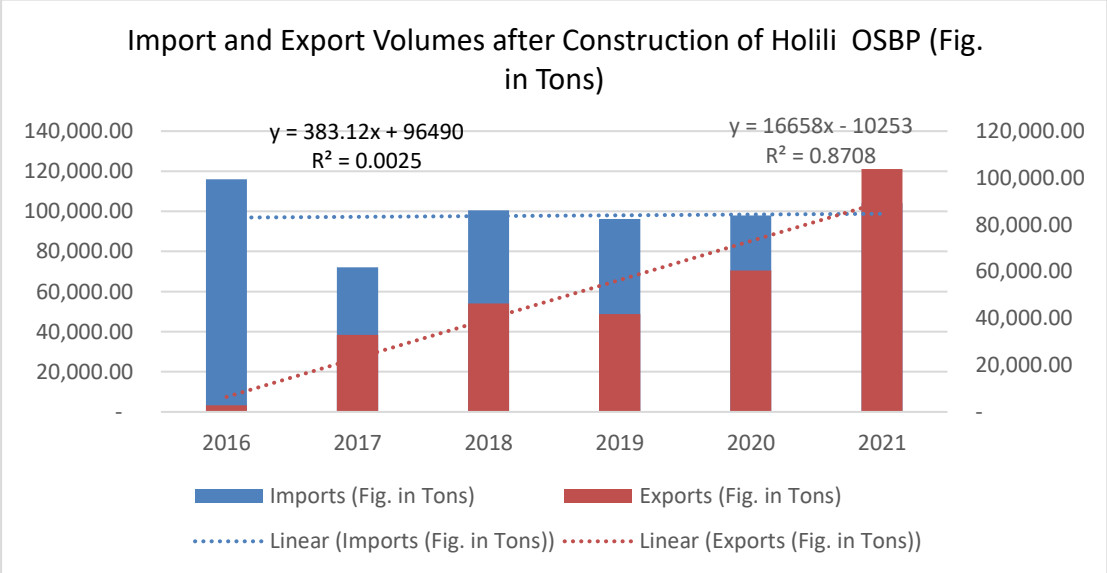

Fig. 8.3 – 2: Import and Export Volume after Construction of OSBP
Source: TRA & Consultant Evaluation, 2022

8.4 Key Challenges that Impact Border Operation Efficiencies and Way Forward

There are key challenges that impact border operations efficiency. Discussion with the lead agency (TRA – Holili OSBP) officials and key stakeholders recommended improvement/provision of the following facilities/equipment to improve efficiency:

i) Lack of off-loading equipment: Provide off-loading equipment i.e., forklift and heavy-duty cranes;

ii) Absence of scanners for quick verification of homogenous cargo and empty trucks: Construct and install of modern scanner to speedup cargo verification especially for homogeneous cargo including empty trucks;

iii) Longer queues on both countries due to frequent system down time: Single Customs Territory (SCT) system has been frequently going down thus creating longer queues, increases storage charge especially in Mombasa and so encouraging corruption. It is recommended the two countries to evaluation the cause of frequent system down time and fix it;

iv) Absence of office to accommodate office incharge for Kenya and other key OSBP stakeholders: Provide office accommodation within the OSBP for office incharge for Kenya and other key stakeholders such as TAFFA, TCCIA and Drivers association to reduce delays in documentation;

v) Parking yard is inadequate: Extend the truck holding yard as per the demand. All trucks should be accommodated at the OSBP to avoid smuggling);

vi) Absence of animal holding yard disrupts verification process: Construct animal holding yard for easy verification of animals being reared towards Tanzania side for sale;

vii) Absence of 24hour service for the Bank: Ensure the Bank operates 24hrs similar to the OSBP operation schedule.

Stakeholders, are of the opinion that, the mobile heavy-duty crane is crucial for offloading containers in case of conflicts between transporters and cargo owners. Similarly, the crane can be used for rescuing situation in case of accidents which creates jam at the OSBP.

9.0 CONCLUSION AND RECOMMENDATIONS

9.1 Conclusion

This survey, was undertaken from a sample of 100 traders randomly selected from a list of about 300 traders based in Dar es Salaam, that were focussed to bring about the study results for the Port of Dar es Salaam, whereas at least 200 traders each of the four-border post namely Tunduma, Kabanga, Mutukula and Holili were involved. However, during interview sessions, a total of 139 respondents (139%) were successfully interviewed. In terms of infrastructure disaggregation, the team, managed to interview 105% (21 out of 20) of the target sample size for the port of Dar es Salaam, 195% (39 out of 20) for Holili/Taveta OSBP, 115% (23 out of 20) for Kabanga/Kobelo OSBP, 125% (25 out of 20) for Mutukula OSBP and 155% (31 out of 20) for Tunduma OSBP. The total questionnaires therefore administered for regional traders' survey were 37 while that of community traders survey were 81 making the total interviews conducted to 139. Data entry exercise during data collection were done through CSPro software using Computer Assisted Telephone Interview (CATI). Therefore, the study analysis of data used the STATA 15 software applying frequencies and percentages modes. Where appropriate, data presentation is displayed using different charts, like in other studies. This baseline study has the following limitations:

- Despite the challenges of locating some of the earmarked traders as from the sample provided and the fact that there were no response to some, after initiatives to contact them from a wider provided sample, the Consultant was however able to consult with traders who responded accordingly.
- Due to limitations of time, it was difficult for some traders to provide quantitative data such as imports/exports volume and revenue data prior and after infrastructure improvement, the team used such data available and retrieved from Customs Data Base (TRA).
- Baseline data for some indicators i.e., commodity prices, population, number of traders, etc., were not collected for tracking progress/outcome after infrastructure improvement, the team used perceived responses from traders who have been in business prior and after the infrastructure interventions.
- Unavailability of imports/exports volumes and revenue data for at least 5 years prior to infrastructure interventions; limits proper correlation analysis of the interventions against imports/exports volume, as well as impact on revenue to the government.
- Correlation analysis between improved infrastructure and imports/exports volume could not be done due to availability of only imports/exports data and not other variables for improved infrastructure.

Based on the survey findings, improvement in infrastructure at the port of Dar es Salaam and the subsequent constructions of OSBPs at Tunduma, Mutukula, Kabanga and Holili border are crucial interventions to improve port productivity and border efficiencies respectively. Success of these interventions can be seen through amongst

others reduced time and cost associated with the logistical processes of exporting and importing of goods, increased satisfaction levels with trade supply chain integrity, increased level of compliance and enforcement of import/export processes and regulation, reduced levels of documentary fraud amongst importers/exporters, increased transparency levels by traders, and increased accountability among key border agencies.

However, the impact/outcome of port improvement in terms of business competitiveness could not be assessed. This was due to the fact that, out of 51 recommendations to improve the port productivity, only 20 recommendations are fully implemented so far (i.e., about 40%) due to lack of funding following expiry of MoU between TMEA and TPA. Similarly, assessment of correlation between improved infrastructure and import/export volume for the port of Dar es Salaam, is also premature as the key recommendations implemented are still in progress i.e., the dredging work.

Impact/outcome assessment therefore could fairly be analysed on the OSBPs as they were in place between 2015 – 2018. Holili/Taveta OSBP for instance was the first OSBP in Tanzania. It started operations on 30th April 2015 followed by Mutukula and Kabanga OSBP which started operations on 20th June 2016 and 31st August 2016 respectively. Tunduma OSBP started operations on 30th July 2018. These facilities had huge impact/outcome to the business competitiveness as well as community around them. In terms of the satisfaction with the facility, traders are generally satisfied (overall average satisfaction rate of 82.1%, 64.1%, 81.3% and 80.2%) with the OSBP facilities, clearance procedures and cost of using the facility for Tunduma, Mutukula, Kabanga and Holili respectively. Traders generally agree that there is improved business competitiveness at firm level following construction of OSBP (overall average perception rate of 83.8%, 63.2%, 88.9% and 83.8% for Tunduma, Mutukula, Kabanga and Holili respectively). The key business competitive elements reported here include amongst others easy coordination of border agencies via the lead agency (TRA), increased transport turnaround time, increased trading volume, improved safety and security of goods and improved joint problem-solving collaborations amongst traders. It is also reported that, these facilities have more impact/outcome to women enterprises competitiveness than when there was no facility. Traders generally agree that construction of OSBPs have benefited more women enterprises (overall average perception rate of 75.0%, 50%. 88.9% and 67.6% for Tunduma, Mutukula, Kabanga and Holili respectively). Using trend analysis for imports/exports volumes before and after improvement of infrastructure, it can be concluded that, correlation with time to gauge the effect due to change of infrastructure occurred over time.

9.2 Recommendations

There are key challenges that impact port productivity and/or border operations efficiency. A set of recommendations are herein provided to improve port productivity and/or border operations efficiency:

a) The Port of Dar es Salaam

i) Limited number of Container berths: Relocate KOJ from Kurasini to Mbwamaji so that berth number 12 – 15 can be constructed;
ii) Low efficiency in port operations due to low level of independence: Introduce business units for all terminals;
iii) Port congestions due to limited space at the port: Reinstate ICDs as extension to the port for container storage as well as for Motor Vehicles imported to reduce port congestion;
iv) Dedicate the Kwala Dry Port to handle Transit Containers, hence provide more room in the Port;
v) Ensure both TAZARA and TRC rail functioning and connected to the Port Rail Mounted Gantry Crane at TICTS; and
vi) Absence of cruise ship terminal: Construct a dedicated cruise ship terminal to avoid sharing with cargo berth/terminals.

b) Tunduma OSBP

i) Due to traffic incidental challenges at Tunduma – Nakonde border, a 60 Tons Crane availability is recommended, to offer services on two folds;
   - When there occur differences between Shipper and Carrier to deliver the cargo to final destination for whatever reasons at cost.
   - When a carrying truck is involved in an accident or to any of the border challenges, to allow delivery of cargo onto a different truck.

ii) Need for border provision of a Forklift: in the event of a need for cargo verification;
iii) Absence of friendly verification bay with higher steps for viewing on top of tankers especially for women: Construct a modern and gender friendly verification bay for inspection of tankers;
iv) Narrow road to Zambia: Expand the approach road to at least three (3) lanes from the existing one (1) lane to allow overtaking;
v) Narrow and congested Tunduma road especially from Mpemba to the OSBP: Expand the Tunduma highway at least from the Weighbridge (Mpemba) to the OSBP from the existing two (2) lanes to at least four (4) lanes to improve traffic flow;
vi) Parking yard is inadequate: Procure extra space and extend the truck holding yard as per the demand. All tracks should be accommodated at the OSBP to avoid smuggling);
vii) Absence of scanners for quick verification of homogenous cargo and empty trucks: Expedite construction and installation of modern scanner to speedup cargo verification especially for homogeneous cargo including empty trucks;
viii) Absence of office for other key OSBP stakeholders: Provide office accommodation within the OSBP for other key stakeholders such as TAFFA, TCCIA and Drivers association;

ix) As Tunduma being a terminal border township, existing adjacent TAZARA Railway Station lacks an interface link to / or from the main road. This denies traders the use of Tazara railway for carrying their goods; and,

x) Absence of 24hour service for the Bank: Ensure the Bank operates 24hrs similar to the OSBP operation schedule.

c) Kabanga/Kobelo OSBP

i) Lack of off-loading equipment: Provide off-loading equipment i.e., forklift and heavy-duty cranes; in the event of a need for cargo verification.

ii) Absence of reliable water supply and frequent power interruption disrupts office operations: The government should invest in water supply infrastructure at Kabanga area rather than dependence on unreliable private entrepreneur. Similarly, the government through TANESCO should strengthen power supply in Kabanga area from the ongoing Rusumo hydro power project;

iii) Narrow road coupled with limited truck parking yard creates longer queues in Kobelo side: The government of Tanzania through bilateral relations should advocacy for Burundi government to expand the truck parking yard and the approach road towards Kobelo OSBP to at least three (3) lanes from the existing one (1) lane to allow overtaking to improve traffic flow;

iv) Absence of scanners for quick verification of homogenous cargo and empty trucks: Construct and install of modern scanner to speedup cargo verification especially for homogeneous cargo including empty trucks;

v) Limited operations from the offices at the entry and exit point on the Tanzania side due to absence of adequate space: Offices at the entry and exit point on Tanzania and Burundi/Kobelo side were designed as guard house rather than offices as a result all operations ought to be done at the entry gate on the Tanzania side are done inside the main OSBP building. At the exit gate and in Kobelo, officers are squeezed in the guard house. It is recommended to construct adequate offices at the entry and exit point for the target gate operations;

vi) Absence of office for other key OSBP stakeholders: Provide office accommodation within the OSBP for other key stakeholders such as TAFFA, TCCIA and Drivers association to reduce delays in documentation;

vii) Absence of Laboratory for some key agencies i.e., Ministry of Agriculture and Tanzania Bureau of Standards (TBS) when doubtful on cargo verification: Construct modern laboratory for the key agencies to ensure efficiency cargo verification; and

viii) Absence of 24hour service for the Bank: Ensure the Bank operates 24hrs similar to the OSBP operation schedule.

d) Mutukula OSBP

i) Lack of off-loading equipment: Provide off-loading equipment i.e., forklift and heavy-duty cranes; in the event of a need for verification of cargo;
ii) Presence of several exit/feeder roads within control zone: By design, OSBP require one access road from entry to exit point. Provide capstone to train traffic to the border exit point;
iii) Limited operations from the offices at the entry and exit point on the Tanzania side due to absence of adequate space: Offices at the entry and exit point on Tanzania side were designed as guard house rather than offices as a result some operations ought to be done at the gate are done inside the main OSBP building. It is recommended to construct adequate offices at the entry and exit point for the target gate operations.
iv) Absence of scanners for quick verification of homogenous cargo and empty trucks: Construct and install modern scanner to speedup cargo verification especially for homogeneous cargo including empty trucks;
v) Delays due to system interface between TANCIS and ASCUDA ++: Fix the interfacing challenges to ensure all documents lodged in ASCUDA++ can fully be retrieved in TANCIS system to avoid delays;
vi) Absence of office for other key OSBP stakeholders: Provide office accommodation within the OSBP for other key stakeholders such as TAFFA, TCCIA and Drivers association; and
vii) Improper bond for cargo from Kenya to Tanzania via Uganda: All cargo under EAC are ought to be zero bond, however, for cargo from Kenya to Tanzania via Uganda, URA bonds it. It is recommended the government of Tanzania through bilateral relations to ensure URA treats such cargo equally to other EAC cargo i.e., zero bond.

e) Holili/Taveta OSBP

i) Lack of off-loading equipment: Provide off-loading equipment i.e., forklift and heavy-duty cranes; in the event of a need for cargo verification;
ii) Absence of scanners for quick verification of homogenous cargo and empty trucks: Construct and install of modern scanner to speedup cargo verification especially for homogeneous cargo including empty trucks;
iii) Longer queues on both countries due to frequent system down time: Single Customs Territory (SCT) system has been frequently going down thus creating longer queues, increases storage charge especially in Mombasa and so encouraging corruption. It is recommended the two countries to evaluation the cause of frequent system down time and fix it;

iv) Absence of office to accommodate office incharge for Kenya and other key OSBP stakeholders: Provide office accommodation within the OSBP for office incharge for Kenya and other key stakeholders such as TAFFA, TCCIA and Drivers association to reduce delays in documentation;

v) Parking yard is inadequate: Extend the truck holding yard as per the demand. All trucks should be accommodated at the OSBP to avoid smuggling);

vi) Absence of animal holding yard disrupts verification process: Construct animal holding yard for easy verification of animals being reared towards Tanzania side for sale; and

vii) Absence of 24hour service for the Bank: Ensure the Bank operates 24hrs similar to the OSBP operation schedule.

ANNEXES

Annex 2.6 - 1: Documents Reviewed

a) Port of Dar es Salaam Documents

i) Consultancy Services for Productivity Improvement Programme Study at the Port of Dar es Salaam, HPC Humburg Port Consulting GmbH and Intro Lackner se, February 2017;
ii) Green Port Policy and Implementation Plan, Final Report, Haskoning DHV Netherlands B.V, April 2018;
iii) Consultancy Services for Preparation of a gate and Traffic Management Plan for the Port of Dar es Salaam, Final Report, HPC Humburg Port Consulting GmbH and Intro Lackner se, September 2017;
iv) Dar es Salaam Maritime Gateway Program (DMGP) Quarterly Progress Report No. 7/July – September 2017 (1st Quarter of financial Year 2017/18), Sellhorn Ingenieurgesellschaft mbH, September 2017;
v) Modernisation of Berth 1 – 7 Part B – Improvement of Cargo handling and Port Layout Phase I, Final Report, Intros Lackner Ag in association with Gauff Ingenieure, July 2013; and
vi) Modernisation of Berth 1 – 7 Part A – Deepening and Strengthening, Final Report, Intros Lackner Ag in association with Gauff Ingenieure, July 2013.

b) One Stope Border Post (OSBPs) Documents

i) Baseline Time and Traffic Survey at Tunduma – Nakonde Border, Final Report, Nick Porée and Associates (Pty) Ltd, July 2018;
ii) Time and Traffic Survey at Nakonde/Tunduma Border Post, Final Report, Poess Limited in JV with IVX Company Limited, April 2021;
iii) Time and Traffic Surveys at OSBPs in EAC, Final Survey Report Mutukula Border Post Uganda – Tanzania, Nick Porée and Associates (Pty) Ltd, July 2016;
iv) Time and Traffic Surveys at OSBPs in EAC, Final Survey Report Kobero/Kabanga Border Post Burundi/Tanzania, Nick Porée and Associates (Pty) Ltd, December 2016;
v) Time and Traffic Surveys at OSBPs in EAC, Final Survey Report Holili - Taveta Border Post, Nick Porée and Associates (Pty) Ltd, October 2015; and
vi) Addendum to Time and Traffic Survey Reports Mutukula, Taveta/Holili, Busia and Mirama Kagitumba Borders, Lilian Muhebwa, May 2014.

Annex 3.2 – 1: Key Stakeholders Identified for the Survey

Facility	Stakeholder	Name and Title	Contact Number	Email Address
Client	TMEA	Mr. Elibariki Shammy	+255767477205	elibariki.shammy@trademarkea.com
		Ms. Lilian Masalu	+255762179689	lilian.masalu@trademarkea.com
		Mr. Solomon Mrema		solomon.mrema@trademarkea.com
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		Mrisho H. Kakoyola - Senior Operations Officer (Dry Bulk Terminal)	+255787322544	mrisho.kakoyola@ports.go.tz
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		Mr. Plasduce Mbossa		plasduce.mbossa@port.go.tz
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	Tanzania Shipping Agents Association (TASAA)	Mr. Abel E. Uronu	+255 713 210 424	executiveses@tasaa.co.tz
	Tanzania Shippers Council (TSC)	Mr. Ashraf Khan	+255 784 188 483	59khanashraf@gmail.com
		Mr. Salum Kashoro	+255 715 360 023	
	TAHA Fresh	Mr. Amani Temu	+255 769 958 887	gm@tahafresh.co.tz
	CMA /CMG – Tanzania	Mr. Kevin Luande	+255 782 617 341	dar.kluande@cma-cmg.com
	Tanzania Exporters Association (TEA)	Mr. Peter Lanya	+255 713 564 955	

Facility	Stakeholder	Name and Title	Contact Number	Email Address
OSBPs	TRA Headquarter	Mr. Edwin Changwe	+255 754 275 636	Edwin.Changwe@tra.go.tz
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	Tunduma/Nakonde	Mr. Dickson Qamara	+255 784 206 904	dqamara@tra.go.tz
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		Mr. Kanese Haruna - C&F Chairman (TAFFA - Kabanga)	+255 754 204 432	ngasanase@gmail.com
	Holili/Taveta	Mr. Masawa Masawa - TRA	+255 754 455 317	

Facility	Stakeholder	Name and Title	Contact Number	Email Address
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Annex 4.2 - 1: Status of Implementation of Key Recommendations to Improve Port Productivity

	Improvement Recommendations - Marine Services				
No.	***Improvement Recommendation***	***Area***	***Description***	***Dependencies***	***Remarks/Outcome/Impact/Challenges***
1	*Computerized recording of vessels' movements*	*Marine Operations*	*Computerized recording of vessels' movements in port from arrival until departure. The system should be interlinked with other TAP departments to ensure correspondence of data. This includes procurement of additional hardware and development (or procurement) of corresponding software.*	*TPA Marine Department Policies*	*Done under DMGP but not yet in use pending training*
2	*Speeding up of repairs*	*Marine Engineering*	*Speeding up of ongoing and pending repairs, including required drydocking of tugs*	*Budget Constraints*	*Not yet done. Issue funding* *Issue not done in Tanzania but in Kenya*
3	*Electronic workshop and spare part management system*	*Marine Engineering*	*Procurement of an electronic workshop management system including spare part management. Such system would monitor the performance of all equipment units, related maintenance and repairs and would suggest the replacement of units when their foreseen costs for maintenance and repair exceed the anticipated costs of a new machine. The spare part management part keeps records on the consumption of spare parts and indicates the need for renewal of stocks under consideration of common lead times to be considered for tendering and procurement.*	*TPA budget constraints*	*Not yet done. Issue funding*
4	*Preventive maintenance*	*Marine Engineering*	*Execution of preventive maintenance more stringently to avoid further breakdowns of Marine Equipment*		*Preventive maintenance is done but not timely*

	Improvement Recommendations - Marine Services				
No.	***Improvement Recommendation***	***Area***	***Description***	***Dependencies***	***Remarks/Outcome/Impact/Challenges***
5	*Training of personnel*	*Marine Engineering*	*Training of the concerned personnel including mechanics to expedite repairs and improve the quality of works.*	*TPA budget constraints*	*Done under DMGP* *Outcome* *i) Capacity improved* *ii) Work moral increased*
6	*Pilots' attendance*	*Marine Operations*	*Payment of overtimes for pilots, if work is executed beyond shift hours.*	*TPA Wage Structures*	*Not done.* *Senior officers and above do not qualify for overtime but extra duty allowance paid per day at TZS 30,000 for all TPA staff with salary scale of TPGS7 and above*
7	*Dredging of berths*	*Port Management*	*Dredging of berths to design water depth to allow larger vessels at berths and to avoid shifting*	*Master Plan*	*Done under DMGP as part of port modernization of berth 1 – 7* *Outcome:* *i) Initially there were only 1 berth with draft of 11m (i.e., berth No. 7). Following dredging now all berth 1 – 7 have draft of 14.5m* *ii) No shifting of vessels.* *iii) Savings in costs associated with shifting of vessels (i.e., for pilots) and demurrage charges which were borne to TPA* *iv) Heavy vessels can dock* *v) Reduction in time at berth i.e., from at least 10 days to a maximum of 7days for general cargo vessels*

Source: HPC

	Improvement Recommendations Containers -TPA				
No.	***Improvement Recommendation***	***Area***	***Description***	***Dependencies***	***Remarks/Outcome/Impact/Challenges***
1	*Procurement new TTUs*	*TPA Container Department*	*Procure new TTUs, so that minimum 4 TTUs can be assigned to 1 MHC,plus minimum 2 spare TTUs which can be added in case MHC productivity is high. Plus, minimum 3 TTUs for internal transfer between different terminal yard areas or for inspection transfer. Add 2 extra trailers in case a container should remain on chassis. Total requirement 5 tractors and 7 trailers.*	*Will enable to avoid using RS at Quayside and avoid temporary stacks near berth.*	*Done under TPA* *Outcome:* *i) Container congestion reduced* *ii) RoRo yard was also used for containers now only cars*
2	*Replace MHC Import Yard 1 by RS*	*TPA Container Department*	*Replace MHC in Import Yard 1 by Reach Stacker. To use MHC for stacking in or stacking out containers in yard is uneconomic because MHC has much higher operation and maintenance costs than RS.*	*It should not be necessary to procure additional RS when no RS are used at berth anymore.*	*In progress* *TPA ordered 2 SSG and 6 RTG expected to arrive in March and October 2023 respectively*
3	*Paint markings for stacks in Container Yard areas*	*TPA Container Department*	*Install paint markings for Twenty-Foot-Ground slots in all permanent container yard areas with matrix marking so that yard management can be done by using TOS.*	*Will enable proper stacking and real time processing for container yard.*	*Done under DMGP* *Outcome:* *i) Easy to manage traffic flow and parking.* *ii) Operations improved and accidents reduced.* *iii) Reduced time for tracing containers*
4	*Procure TOS for Container Terminal*	*TPA Container Department*	*Procure a TOS, at least for the container operation.*	*Requires yard areas to be marked and fitted with numbered TGS.*	*Not done.* *Issue/Challenge: Contractual implementation issues. Planned to be retendered under DMGP*

No.	Improvement Recommendation	Area	Description	Dependencies	Remarks/Outcome/Impact/Challenges
	Improvement Recommendations Containers -TPA				
5	*Upgrade RDT System*	*TPA Container Department*	*Upgrade the existing RDT system, so that wireless data transmission is possible in all container yard areas. Procure sufficient handheld RDTs and install mobile data terminals in all major container handling equipment (MHC, RS, RTG, ECH).*	*Needs to be interfaced with TOS.*	*Not done* *Issue/Challenges: TOS not there*
6	*Replace existing RTGs and install new RTGs as well in Import Yard 1*	*TPA Container Department*	*Replace existing RTGs in Import yard 2 and convert import yard 1 to RTG stacks as well. Will require to procure a total of about 8 RTGs (4 units in each import yard).*	*Requires yard areas to be marked and fitted with numbered TGS, as well as levelled and even ground surfaces.*	*Under procurement*
7	*Demolish waterside sheds along berths 5 - 7*	*TPA Container Department*	*Demolish waterside sheds along berths Nos. 5 - 7 and level the surfaces to create additional container stacking space.*	*Requires checking that subject sheds are not needed as covered storage areas for containerized goods.*	*Done* *Outcome:* *i) Adequate space for containers stacking for Berth 5 – 7 obtained* *ii) Reduction days of operations from up to 10 cays due to double handling to 1 – 2 days due to increased space*
8	*Complete reconstruction of Gate 5 as soon as possible*	*TPA Container Department*	*Complete the reconstruction of Gate No. 5 soonest possible to enable a more efficient container traffic processing and gate operation.*	*Requires to coordinate with other stakeholders to ensure the gate meets their requirements.*	*Done* *Outcome:* *i) Reduced congestion for trucks at the gate.* *ii) Improved traffic flow due to separation of gate for trucks entering and those exiting the port.*

Source: HPC

	Improvement Recommendations Container Operation TICTS				
No.	***Improvement Recommendation***	***Area***	***Description***	***Dependencies***	***Remarks/Outcome/Impact/Challenges***
1	*Reorganize TICTS traffic management scheme. This will render improvements to decongest the TICTS approaches and exits.*	*TICTS*	*Implement new road truck traffic pattern for scanner areas and enable trucks to leave from TICTS terminal, instead of blocking the TICTS terminal out-gate by waiting trucks.*	*TPA/TICTS joint planning exercises*	*Done* *Outcome:* *i) Reduced congestion for trucks to TICTS* *ii) Improved traffic flow for trucks to be scanned by introduction of gate 4A instead of gate 5 only* *iii) Entrance of trucks through gate 4B became possible after widening.* *iv) Interfacing of weighbridge made it possible for trucks to enter and exit through different gates (i.e., enter through gate 4A and exit through gate 3 or 5)*
2	*Extension of the container terminal quay wall to the South.*	*TICTS*	*The current dimensions of TICTS will not match near future capacity requirements. Therefore, it will be necessary to increase the TICTS container terminal area.*	*Budget Constraints*	*Not done* *Planned under DMGP currently under design* *Issue/Challenges: TICTS have to be relocated to berth 5 – 7 so as to improve berth 8 - 11*
3	*Authorize TICTS to create more ICDs*	*TICTS*	*Will require to obtain additional storage area for TICTS import container outside the terminal, for example an additional ICD (operated by TICTS).*	*TPA Authorization*	*Not done.* *Planned to be done under TPA. Consultant to be procured to advice on operational processes*
4	*Depose of defunct 3 STS at Berth 8*	*TICTS*	*Consultants are rating the importance of the removal of the defunct STS as a top priority subject.*	*No info*	*Not done* *Issue/Challenge: Internal disposal processes and bureaucracy*

Source: HPC

	Improvement Recommendations General Cargo and RoRo				
No.	***Improvement Recommendation***	***Area***	***Description***	***Dependencies***	***Remarks/Outcome/Impact/Challenges***
1	*Reduction of operational delays at berths*	*Port Management*	*Change of vessels' clearance procedures, granting of 'Free Pratique' before vessel's arrival and outward clearance before completion of cargo operations.*	*Approval of Customs, Immigration, Ministry of Health and other authorities*	*Done.* *Outcome:* *i) No operational delays at berths* *ii) Increased vessels turnaround time*
2	*Procurement of triple mast forklift trucks and pallets for handling and storage of bagged cargoes*	*Port Sections A & B*	*Procurement of 10 units electric triple-mast forklift trucks together with loading stations and 3,000 pallets to handle and store bagged cargoes more effectively.*	*Budget Constraints*	*Done* *Outcome:* *i) No operational delays at berths* *ii) Handling capacity and storage of bagged cargoes has increased. Up to 7 clients can be attended at per while initially maximum 2 clients at a time were able to be attended*
3	*Training of personnel*	*Port Operations*	*Training on Port Operations and Cargo Handling to concerned personnel (supervisory level).*	*Budget Constraints*	*Done through DMGP* *Outcome* *i) Capacity improved* *ii) Work moral increased*
4	*Allocation of additional storage areas for vehicles (RoRo)*	*Port Sections A & B*	*Allocation of additional areas for the storage of vehicles ex RoRo vessels, as otherwise many vehicles would be temporarily parked in traffic areas and hamper traffic flows.*	*Budget Constraints*	*Done under DMGP* *Outcome:* *i) Improved traffic flow at the berth operational area* *ii) No delays for clearance, accidents and damage.* *iii) Increased efficiency in car offloading from 55 cars/hour to 66-67 cars/hour*
5	*Levelling of open storage surfaces*	*Port Sections A & B*	*Levelling and surfacing open storage areas after removal of remaining shed remnants to increase storage capacities and improve traffic flows.*	*Budget Constraints*	*Not done* *Issue/Challenge: It is planned to have a conveyor belt system. So, this will be part of the conveyor belt system*

6	*Dredging of berths*	*Port Management*	*Dredging of berths to design water depth to allow larger vessels at berths and to avoid shifting*	*Budget Constraints*	*Done* *Outcome:* *i) Initially there were only 1 berth with draft of 11m (i.e., berth No. 7). Following dredging now all berths 1 – 7 have draft of 14.5m* *ii) No shifting of vessels.* *iii) Savings in costs associated with shifting of vessels (i.e., for pilots) and demurrage charges which were borne to TPA* *iv) Heavy vessels can dock* *v) Reduction in time at berth i.e., from at least 10 days to a maximum of 7days for general cargo vessels*

Source: HPC

	Performance Improvements Liquid Bulk				
No.	***Improvement Recommendation***	***Area***	***Description***	***Dependencies***	***Remarks/Outcome/Impact/Challenges***
1	*Reduce berthing idle times*	*TPA - Liquid Bulk*	*Reduce berthing idle times for tanker vessels while alongside berth, particularly for SPM and KOJ 1, but even for KOJ 2 this measure should be applied. This includes that step need to be taken to ensure that boarding parties, including officials from Customs and TBS board vessels timely on arrival.*	*Requires coordination between TPA oil terminal, cargo receiver or shipper, vessel and agent*	*Done* *Outcome* *i) No idle time as a result vessel waiting time reduced from 99hrs in 2016 to 19hrs in 2020* *ii) Vessel turnaround time reduced from 127hrs in 2016 to 106hrs in 2020* *iii) Berth occupancy rate increased from 72% in 2016 to 75% in 2020*
2	*Increase Productivity at Liquid Bulk facilities*	*TPA - Liquid Bulk*	*Increasing the hourly pumping rate more towards the actual capacity of the TPA- and other pipelines. This means improving the productivity as much as possible.*	*Requires coordination between TPA oil terminal, cargo receiver or shipper, vessel and agent*	*Done* *Outcome:* *i) Flow meters increased from 5 to 12 and modernized* *ii) Each product has its own meter with spare so in case of maintenance operation can still continue* *iii) Accuracy has increased so conflicts on measurement discrepancies has been reduced.*
3	*Monitor and record manifest processing for tanker calls*	*TPA - Liquid Bulk*	*Monitor and record the dates / times of manifest submission and acceptance for each tanker call, excluding those domestic tanker calls being exempted from Customs permits.*	*Requires coordination between TPA oil terminal management and Customs*	*Done through Result framework system under DMGP* *Outcome* *i) Port productivity indicator can be calculated due to availability of key data*
4	*Create a digital central data base for vessel call related dates & times*	*TPA - General*	*Create a digital central data base where amongst other records, all arrival OA, POB, Berthing, Vessel Shifting Berth (in case applicable), POB for departure Unberthing, Pilot away and departure OA for each vessel are recorded and can be accessed by all authorized TPA departments.*	*Requires installation of suitable hardware and software to implement and operate the data base.*	*Done through Result framework system under DMGP* *Impact/Outcome* *i) Proper record with more accuracy is now available unlike manual record earlier used. Incase of mistake, the system can prompt someone to correct it i.e., recording of one ship on two berths, the system will not accept that but with manual record it will go through.*

Source: HPC

	Improvement Recommendations Dry Bulk (Berth 4)				
No.	***Improvement Recommendation***	***Area***	***Description***	***Dependencies***	***Remarks/Outcome/Impact/Challenges***
1	*Grain conveyor system from Midport to Silos*	*Dry Bulk Grain*	*Truck unloading station at Midport area, weighing tower, automatic sample taking, 1200t/h conveyor to distribution tower north of the TPA Silos, 1200t/h TPA Silo feeding, dust collection, electric control system and emergency power, interface for private Silo operators to connect their conveyor system*		*Not yet* *Progress todate:* *i) Concept design done* *ii) Waiting detailed design under TPA* *iii) Works to be implemented by either PPP or under TPA*
2	*Mobile conveyors from hoppers to stationary conveyor system*	*Dry Bulk Grain*	*Mobile conveyor system to connect hoppers with the stationary conveyor system, stationary interface for the mobile conveyors, dust collection system. Once advanced grain unloaders have been implemented the system can be used for fertilizer*	*Needs stationary conveyor system, full benefit only after deepening of berth 4*	*Not yet* *Progress todate:* *i) Concept design done* *ii) Waiting detailed design under TPA* *iii) Works to be implemented by either PPP or under TPA*
3	*Fertilizer conveyor system from Back Port to external Storage*	*Dry Bulk Fertilizer*	*Truck unloading station at backport area, weighing tower, automatic sample taking, 1200t/h conveyor to the silo of Dar es Salaam corridor, dust collection, electric control system and emergency power*	*The location of the truck unloading system could conflict with a potential TRL and Standard gauge container railhead. Suitable for PPP*	*Not yet* *Progress todate:* *i) Concept design done* *ii) Waiting detailed design under TPA* *iii) Works to be implemented by either PPP or under TPA*
4	*Improved gate pass system*	*Dry Bulk Gate 4*	*When a fertilizer or grain truck passes the scale/gate all harbour dues and custom duties are paid. (As far as we know there are no custom duties on fertilizer.) After registering the truck on the scale there is no need for stamps, signatures etc.*	*Agreement from Customs and port security*	*Not done* *Issue/Challenge* *i) Fertilizer will be treated under conveyor belt system* *ii) However, the gate pass system generally has been improved and it is controlled by cargo system*

5	*Procedure for excess cargo, import licenses to permit 2% excess cargo*	*Dry Bulk Gate 4*	*Bulk quantities in a ship are never totally exact as all scales involved have a tolerance. Presently a new import application must be applied for. This can take 6 weeks. Trucks with excess cargo were parked at the silo for such time. Importers should have the chance to provide an extra bank guarantee.*	*Agreement from Customs and port security*	*Not done* *Issue/Challenge* *So far, the excess cargo allowable as per the law in bulk is +- 0.5%, above that, must be paid*

Source: HPC

	Improvement Recommendations Mobile Cargo Handling Equipment				
No.	***Improvement Recommendation***	***Area***	***Description***	***Dependencies***	***Remarks/Outcome/Impact/Challenges***
1	*Procurement of 3 Rubber Tired Gantry Cranes (RTG) replacing existing ones to improve operations*	*TPA Container stacking area 2*	*In order to improve the performance of the operation at the stacking area 2 it is highly recommended to procure three new RTG's to replace the existing ones which are in a very poor state. Out of the three RMG's one is scrap and the other two have a very high down time*	*TPA Budget*	*In progress* *TPA ordered 6 RTG expected to arrive in October 2023*
2	*Procurement of 2 Rubber Tired Gantry Cranes (RTG) replacing existing Mobile Harbour Crane (MHC) to improve operations*	*TPA Container stacking area 1*	*The MHC presently occupied with operating on the southern container stacking area should be withdrawn and transferred to quay side operations. It is recommended to replace the MHC for the time being by two RTG's which can handle container stacks much more efficient. Should the volume of container turnover increase in future it would be feasible to add one or two RTG's*	*N/A*	*In progress* *TPA ordered 6 RTG expected to arrive in October 2023*
3	*Withdraw Mobile Harbour Crane and transfer to quay side for operations*	*TPA Container stacking area 1*	*HPC is of the opinion, that the MHC presently operating at the southern container stacking area can be deployed more effectively in the quay side operations. Please also see No. 2*	*N/A*	*Not yet.* *Issue/Challenge:* *To be done after arrival of SSG and RTG*
4	*Removal from quay side of obsolete Rail mounted Harbour cranes and replacement by one small Mobile Harbour Crane (MHC)*	*TPA Southern quay side in front of grain and fertilizer warehouse*	*It is recommended to remove and srcap the old quay cranes located at the southern part of TPA's quayside. which occupy a considerable amount of space. In order to handle fertilizer and grain bags it is recommended to replace the old cranes supplied by the Canadian Commercial Corporation in 1975 by a small mobile harbour crane with a capacity of around 40 tons. This crane could also be used for the loading and unloading of small vessels.*	*N/A*	*Done* *Outcome:* *i) Reduced accident and cost* *ii) More space for operation is now available* *iii) Clear vision to pilot*

5	*Removal of equipment to be scrapped from Central Workshop area*	*TPA Central Workshop*	*Around 60% to 70% of the Central Workshop area is covered with equipment that no longer is in use and which needs to be scrapped. HPC highly recommend to remove all this equipment as quickly as possible as it hampers the day-to-day operations.*	*N/A*	*Not yet* *Issue/Challenge: Internal disposal processes and bureaucracy*
6	*Refurbishment and upgrading of Central Workshop*	*Central Workshop*	*During HPC's visit to the Central Workshop it was observed that the existing work shop equipment is in a poor state and needs to be improved considerably. HPC recommend to conduct a survey to establish the present status and based on that prepare a conclusion in respect of improvement and upgrade. In this context it is also recommend to investigate and gather all mandatory data for the maintenance and repair activities, operational requirements and regular communication between Operation and M&R.*	*N/A*	*Not yet* *Issue/Challenges: Design of railway terminal calls for demolition of central workshop and so it is to be relocated*

Source: HPC

Clearance & Documentation

No.	Improvement Recommendation	Area	Description	Dependencies	Remarks/Outcome/Impact/Challenges
1	Reduce manifest process time	Manifest Process	Through computer system integration (Single W indow System) with TRA, TPA, Shipping Line and Shipping Agents. Proper training and guidelines to stakeholders. This will make it possible for Customs to approve manifests online and fast enough to improve the time of allowing discharge of cargo to commence immediately.	TRA/TPA/Shipping Line & Agents	Not done Issue/Challenge: Single Window System not in Place
2	Reduce time of discharging cargo	TPA / TICTS	Acquiring modern equipment for discharging cargo faster.	TPA/TRA/Shipping & Customs Agents	In progress
3	Enhance scanning of containers	TPA / TICTS	Invest in more scanners and scanner system should be linked to TANCIS for ease of analyzing scanned reports. This will minimize the number of containers number of containers to be verified physically and scanned reports made available in the shortest time to be analyzed by Customs, many scanners will also reduce the time of scanning.	TPA/TRA/C&F Agents	Done: Increased number of scanners from 3 to 5 but availability is still questionable due to frequent downtime
4	Quick verification of containers by TRA	ICTS/IC Ds	TRA to introduce Risk Management assessment and AEOs. Deploy more verification officers and the verification areas to be expanded. When the officers are many and the verification area is big enough then many containers can be verified within a short time	TRA/TPA/C&F Agents	Not done Issue/Challenge: The ongoing construction works limit expansion of the verification area
5	Enhancing TPA payment system	TPA / TICTS	TPA to integrate computer systems at the port. Introduce Single Window System and integrate its platform with the payment system. This will reduce time wasted waiting for confirmation from the commercial banks to confirm payments to TPA.	TPA/C&F Agents	Not done Issue/Challenge: Contractual implementation Challenges
6	Reduce time of issuing certificate of conformity	TPA & TBS	Training importers and creating awareness on the need to comply with the TBS regulations. Integrate systems of TRA & TBS for intime submission of CoC. TRA and TBS should exchange information directly instead of allowing importers to intervene	TBS/TRA/Importers	Not done

7	TRA to improve on dispute settlement	TPA / TICTS	Application of ACV as per EACCMA in handling disputes. TRA should allow Bank Guarantees/Bonds instead of cash deposits to allow release of cargo. Stakeholders need regular training.	TRA/Importers/C&F Agents	Done Outcome No more disputes
8	Improve treatment of exports	TPA / TICTS	Provision of express entry of export containers and clearance process. They should have a separate gate to enter the port. This will make exports more competitive and earn more income.	TRA/TPA/Shipping & Customs Agents	Not done However, exports are channeled through gate 4A while imports through gate no. 3 and 5 Issue/Challenge: Space unavailability
9	Reduction on downtime of systems	TPA / TICTS	Introduction of systems with adequate capacity and integrated with the key stakeholders' systems. The same will assist to reduce the systems failure that drag the operations.	All Stakeholders	Not done: Issue: TRA
10	Adoption of integrated system	TRA / TPA / TBS	Introduction of integrated system in all port operations. The use of EDI- Interface will enable all approvals by Customs to be in time and stakeholders saved from carrying pfiles from office to office. This will reduce or do away of human interface at all levels of clearing cargo within TRA/TPA/TPA offices.	All Stakeholders	Not done Issue/Challenge: Single window system not in place
11	Fully implementation of Single Customs Territory)	TRA	TZ should embrace and implement SCT fully. This was the main reason for EAC Custom Union which aimed to reduce the cost of doing business and enhances competitiveness in the region. This can be achieved if the systems are integrated with other Partner States and business to be conducted as per SCT without bottlenecks.	All Stakeholders	Not yet Issue/Challenge: Contractual implementation challenges
12	Adoption of One Stop Center (OSC)	TPA / TICTS	Operationalize the OSC to reduce costs and improve competitiveness. This will able the C& F Agents to perform all the services required for the clearance of cargo at one point.	All Stakeholders	Done Outcome: i) Reduced bureaucracy in documentation processing ii) Reduced documents processing delays iii)Increased security of cash to clients/customers

Source: HPC

	Improvement Recommendations Electronic Data Interchange				
No.	***Improvement Recommendation***	***Area***	***Description***	***Dependencies***	***Remarks/Outcome/Impact/Challenges***
1	*Introduction of TOS*	*All*	*Purchase, customizing and **introduction of an adequate TOS solution** for all cargo types. The TOS introduction must take place in all fields of terminal operations like container, general cargo, dry bulk, RoRo, liquid and others. Approved advantages of TOS usage are the increase of efficiency, accelerated terminal operations, improved utilization of resource occupation and decrease of operational costs.*	*All areas of operations at TPA*	*Not yet* *Issue/Challenge: Contractual issues*
2	*Establishing mobile radio data devices*	*All*	*Use of **mobile radio devices** for checking tasks at the berth, job steering and control in the terminal handling equipment as well as checking of containers and other cargo at the gates and on the yard. The use of mobile devices in operations allows comprehensive tracking and control functionality of terminal operations in real-time. As a precondition for the use of mobile devices the full **radio data coverage** with WLAN on all terminal areas is required.*	*All areas of operations at TPA*	*Done* *Outcome:* *i) Easy/improved communication* *ii) Efficiency in terms of time and no manual walking* *iii) Operations improvement*
3	*Establishing a port community system*	*All*	***Establishing a port community system** for the entire port region in Dar Es Salaam to ease publishing of vessel call schedule, announcement of truck arrivals, tracking of operation processes, information about cargo state, and exchange of documentation. A successful port community system must allow participation of all stakeholder of the cargo handling processes like terminal operators, shippers, consignees, truckers, and customs.*	*All areas of operations at TPA and all participated stakeholders*	*Not yet* *Issue/challenge: Contractual issues*

Source: HPC

Annex 4.4 - 1: Selected Photos for the Port of Dar es Salaam

Typical Port of Dar es Salaam showing berth zero (RoRo) to berth 11 at TICTS

The Cruise Ship Terminal to be Redeveloped

Dredging works in progress

Annex 5.4 - 1: Selected Photos for Tunduma/Nakonde OSBP

Typical Truck holding yard at Tunduma OSBP

Truck verification bay with no platform for easy verification. The bay has inadequate clearing height for trucks

Truck Scanning area at Nakonde OSBP

Congested approach road from Zambia side at Nakonde to Tanzania due to absence of lane separation between outgoing vehicles and incoming vehicles from Zambia at Nakonde

Annex 6.4 - 1: Selected Photos for Mutukula OSBP

Truck verification yard at Mtukula OSBP on Tanzanian side

Feeder and/or access roads on the main road to Mutukula OSBP within the control zone on the Tanzanian side

Truck scanner on the Uganda side

Long queues on the Tanzania side for Trucks entering Uganda

Annex 7.4 - 1: Selected Photos for Kabanga/Kobelo OSBP

Truck verification yard at Kabanga OSBP

Typical guard house used by several border officers for control of exit protocols at Kabanga OSBP

Long queues for trucks entering Kobelo OSBP from Tanzania

Trucks verification yard at Kobelo OSBP

Annex 8.4 - 1: Selected Photos for Holili/Taveta OSBP

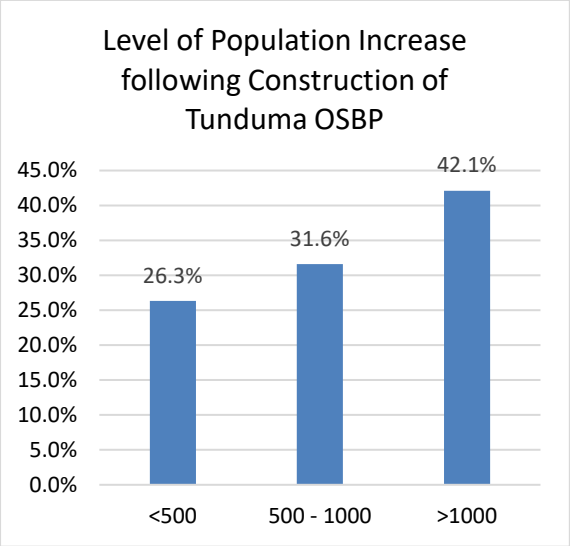
Trucks verification bay at Holili OSBP

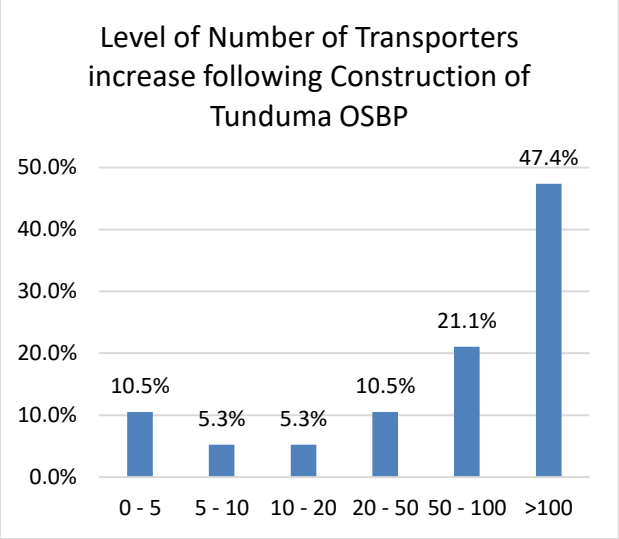
Truck parking yard at Holili OSBP

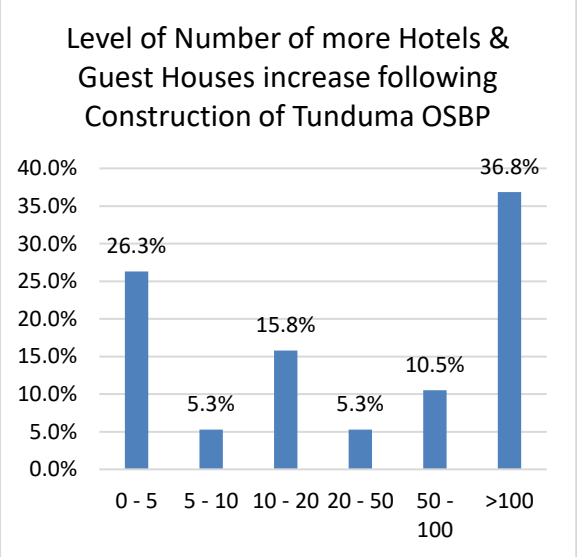
Trucks parking outside the designated parking yard due to inadequate parking space during peak time at Holili OSBP

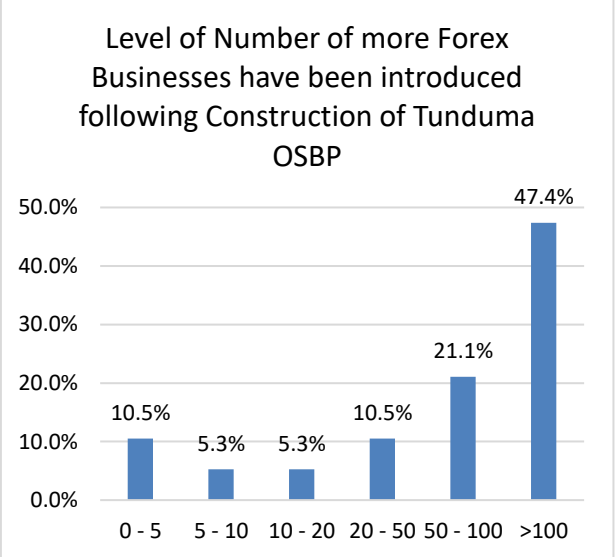
Trucks verification bay at Taveta OSBP

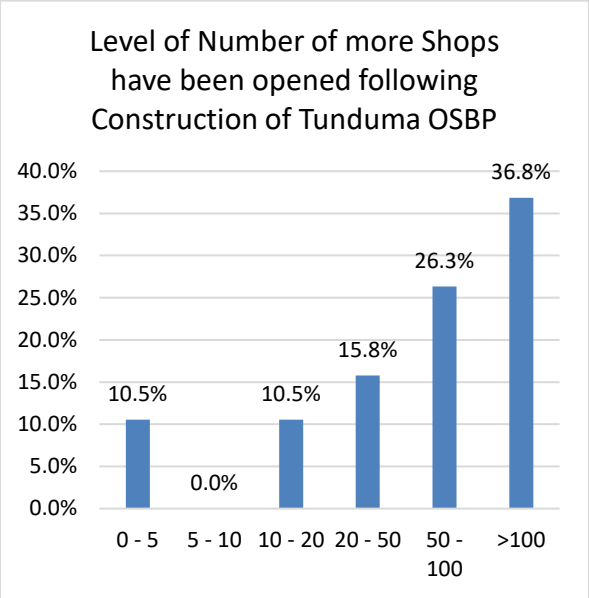
Annex 5.2 - 1: Other Benefits to Community following Construction of Tunduma OSBP







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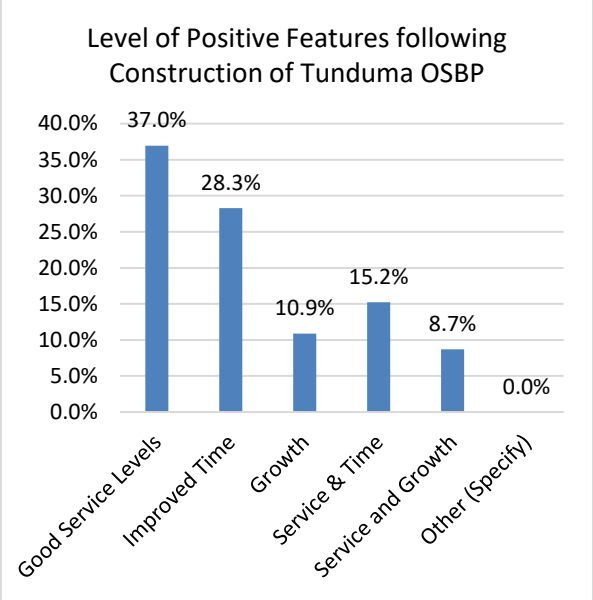
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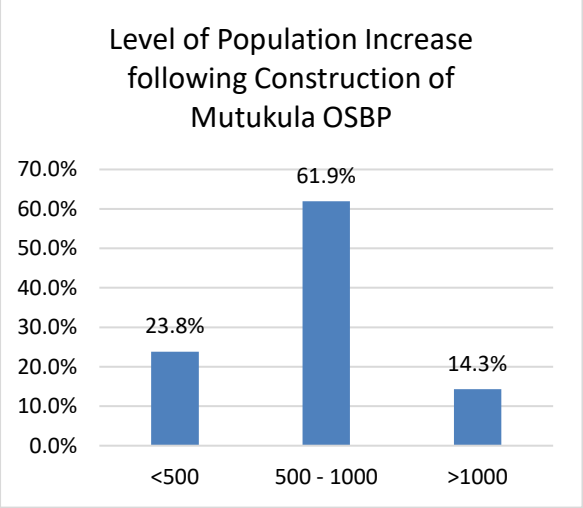
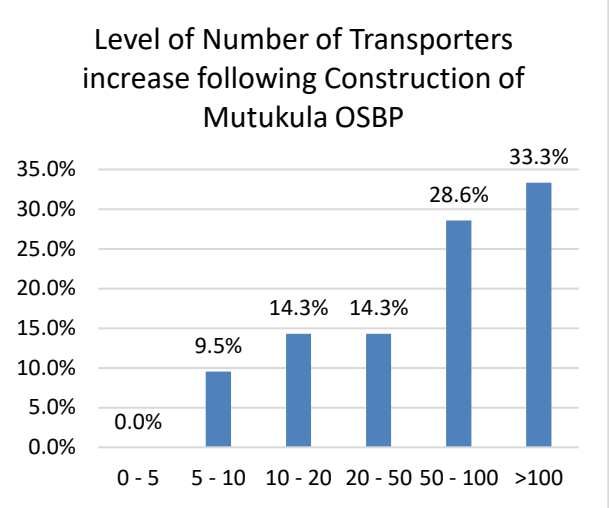
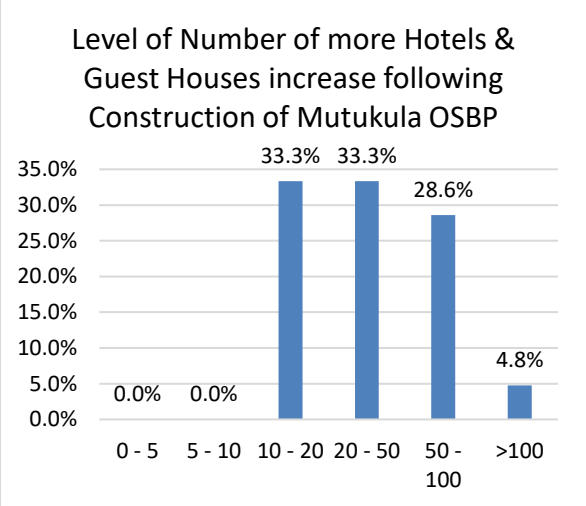
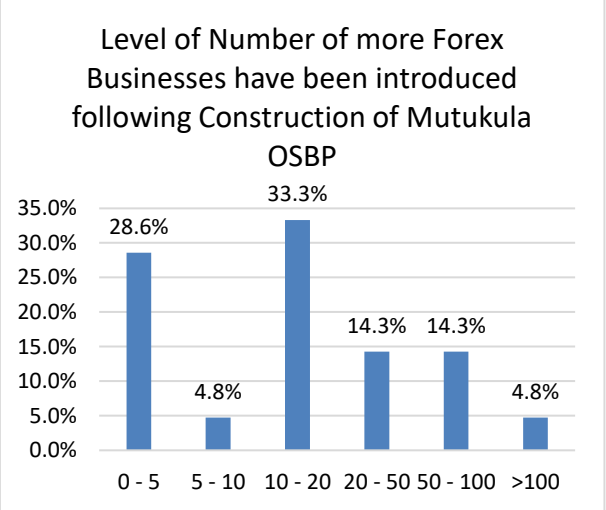
Good Service Levels
Improved Time
Growth
Service & Time
Service and Growth
Other (Specify)

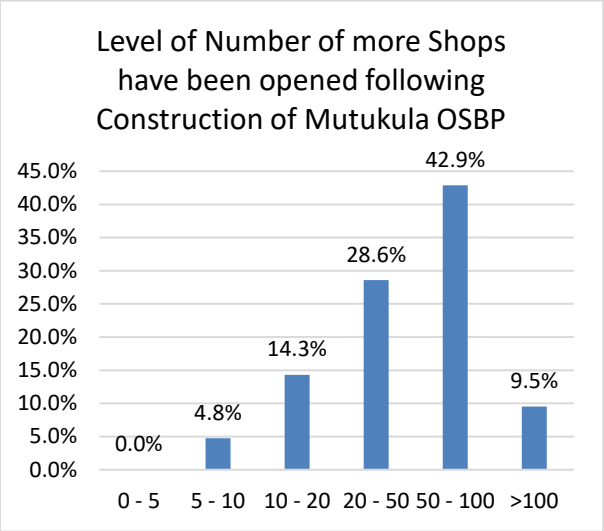
Annex 6.2 - 1: Other Benefits to Community following Construction of Mutukula OSBP










Level of Number of more Shops have been opened following Construction of Mutukula OSBP
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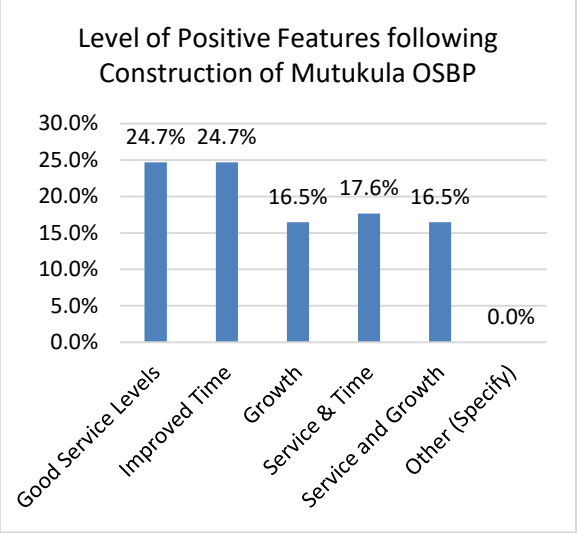
Level of Positive Features following Construction of Mutukula OSBP
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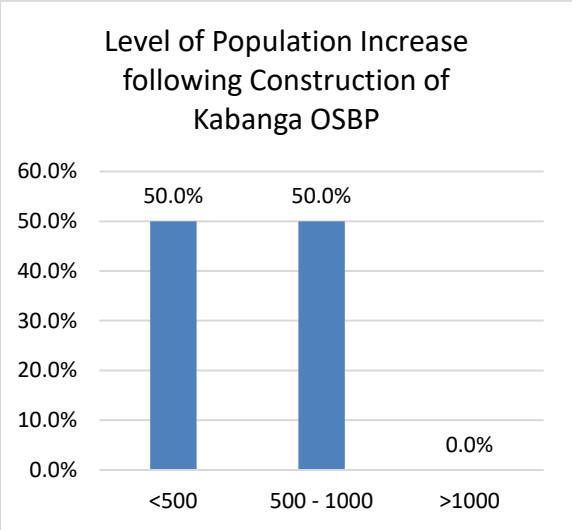
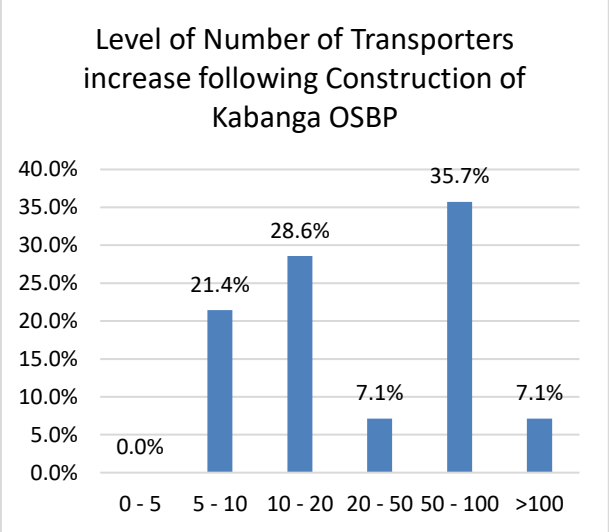
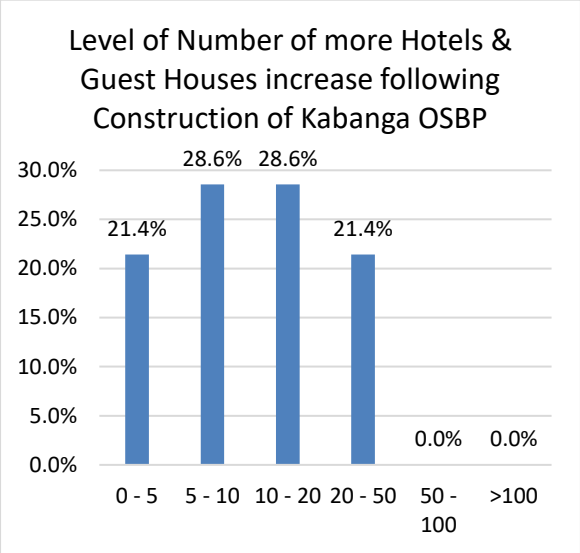
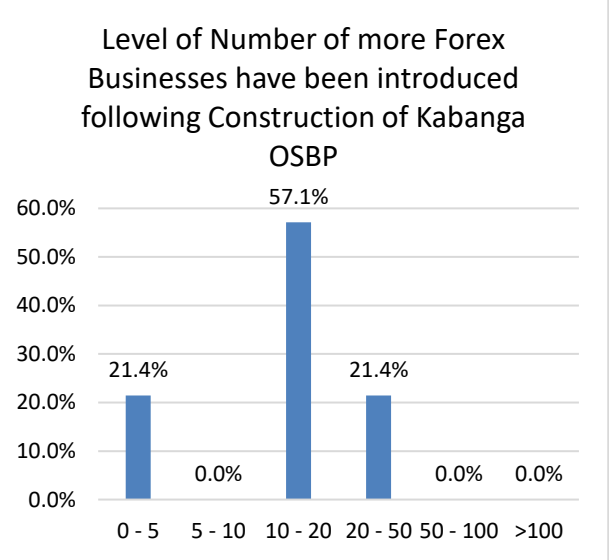
Good Service Levels
Improved Time
Growth
Service & Time
Service and Growth
Other (Specify)

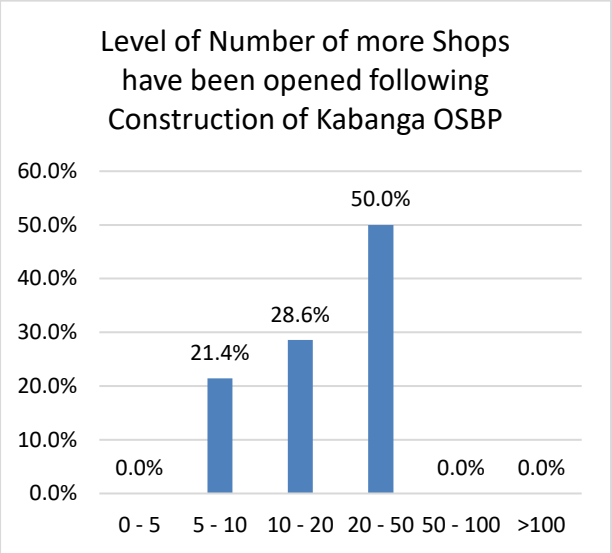
Annex 7.2 - 1: Other Benefits to Community following Construction of Kabanga OSBP







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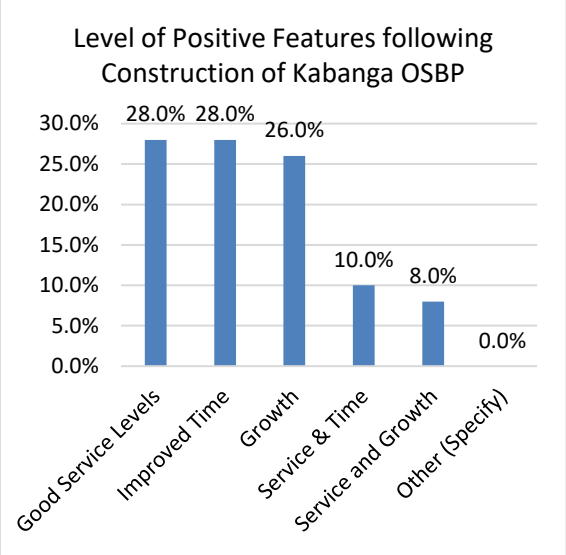
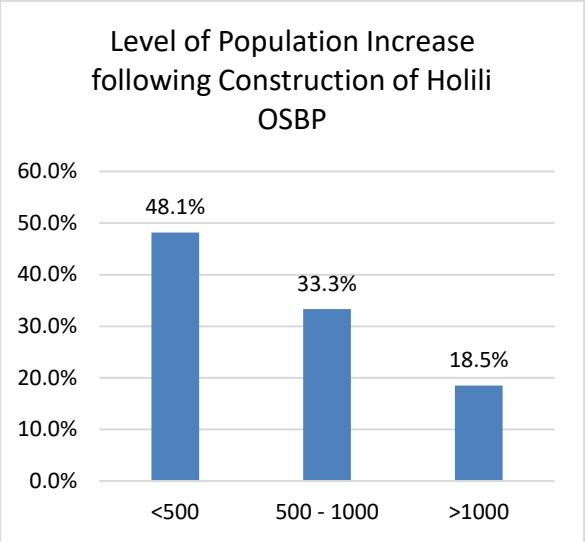
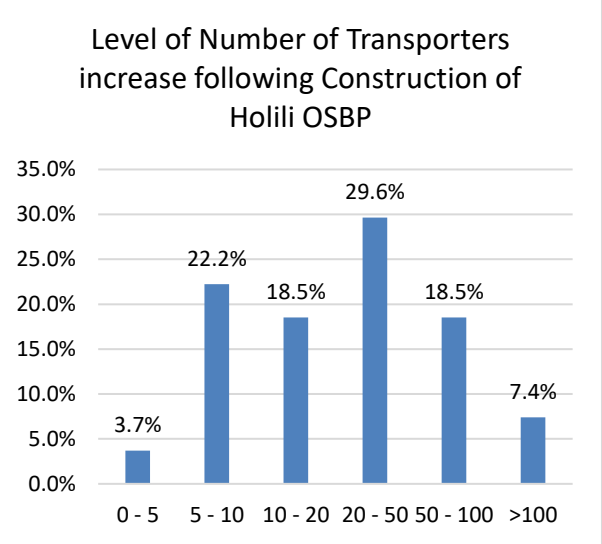
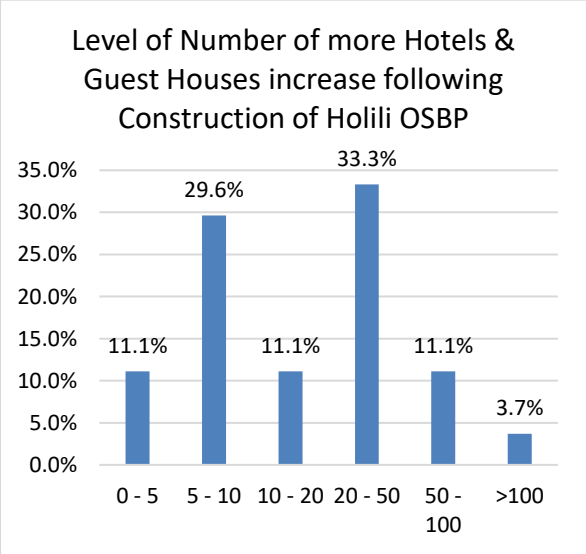
50 - 100
>100

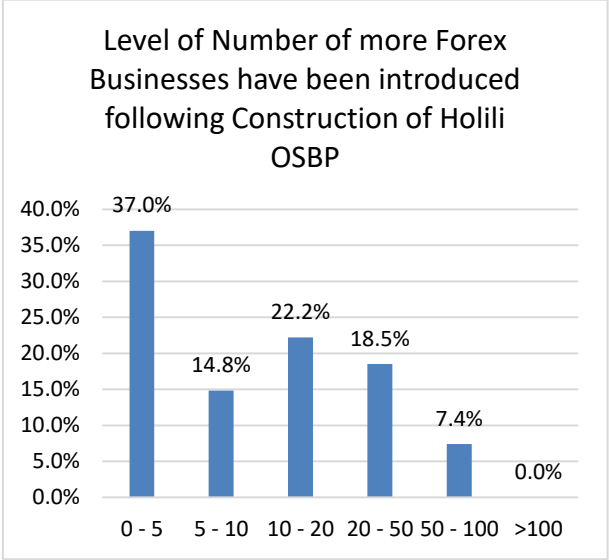

Level of Positive Features following Construction of Kabanga OSBP
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
28.0%
28.0%
26.0%
10.0%
8.0%
0.0%
Good Service Levels
Improved Time
Growth
Service & Time
Service and Growth
Other (Specify)

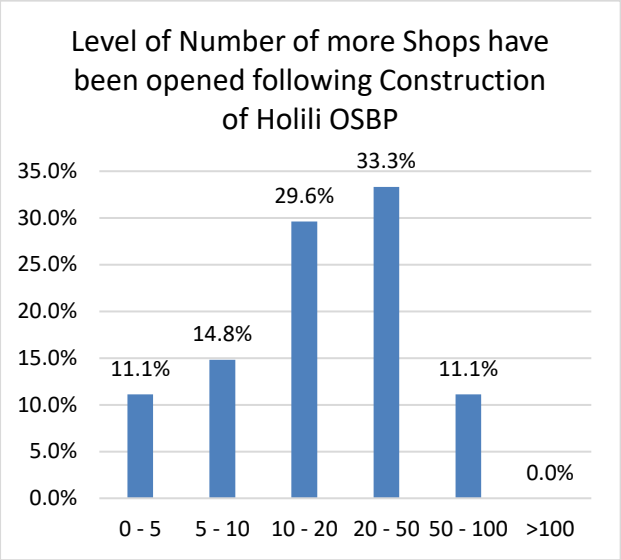
Annex 8.2 - 1: Other Benefits to Community following Construction of Holili OSBP

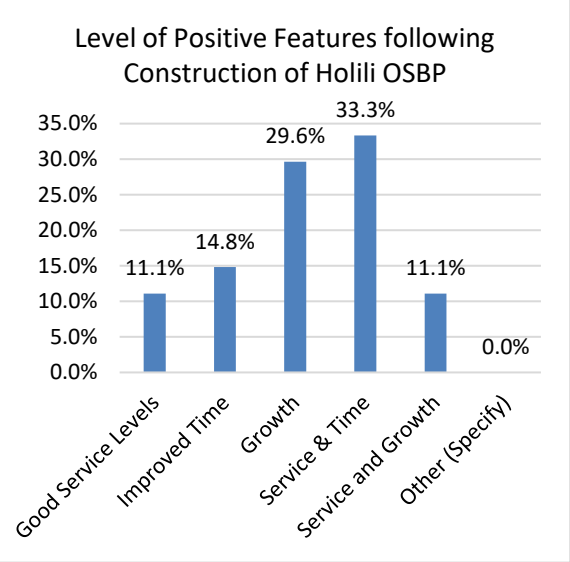









Level of Number of more Shops have been opened following Construction of Holili OSBP
35.0%
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
11.1%
14.8%
29.6%
33.3%
11.1%
0.0%
0 - 5
5 - 10
10 - 20
20 - 50
50 - 100
>100


Level of Positive Features following Construction of Holili OSBP
35.0%
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
11.1%
14.8%
29.6%
33.3%
11.1%
0.0%
Good Service Levels
Improved Time
Growth
Service & Time
Service and Growth
Other (Specify)