



**END OF PROJECT EVALUATION OF TMEA FUNDED ICT  
FOR TRADE SYSTEMS IN RWANDA**

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## **ABBREVIATIONS AND ACRONYMS**

CAPI	Computer Assisted Personal Interviews
CLMS	Converged License Management System
COVID-19	Coronavirus disease 2019
CSPro	Census and Survey Processing System
DRC	Democratic Republic of Rwanda
EAC	East African Community
EU	European Union
GoR	Government of Rwanda
ICT	information and communication technologies
IBES	Rwanda Integrated business Enterprise survey
M&E	Monitoring and evaluation
MININFRA	Ministry of Infrastructure
MIS	Management Information System
NAEB	National Agriculture Export Development Board
NCTTCA	Northern Corridor Transit and Transport Coordination Authority
NES II	National Export Strategy 2021 – 2030
NICI	National Information and Communication Infrastructure
NST1	National Strategy for Transformation 2017 - 2024
NTB	Non-Tariff Barrier
OBR	Burundi Revenue Authority
OECD-	Organisation for Economic Co-operation and Development's Development
OSBP	One Stop Border Post
PAR	Project Appraisal Report
RCP	Rwanda Country Programme
ReSW	Rwanda electronic single window
RICA	Rwanda Institute for Conservation Agriculture
RRA	Rwanda Revenue Authority
RSB	Rwanda Standards Board
RURA	Rwanda Utilities Regulatory Agency
SPS	Sanitary & Phyto-sanitary
TFA	Trade Facilitation Agreement
TMEA	TradeMark East Africa
TOC	Theory of change
TPA	Tanzania Ports Authority
TradeMark	Trade and Markets
USA	United States of America
USAID	United States Agency for International Development
VfM	Value for money
WBES	World Bank Enterprise Survey
WTO	World Trade Organisation

## EXECUTIVE SUMMARY

The Government of Rwanda (GoR) has established the Rwanda Standards Bureau (RBS) to undertake all activities pertaining to the development of Standards, Conformity Assessment and Metrology services in the country; the National Agricultural Export Development Board (NAEB) with the mission to facilitate the growth of business to diversify agriculture and livestock commodity export revenues; and Rwanda Utilities Regulatory Authority (RURA) with the mission to regulate public utilities. In regulating public utilities, RURA: promotes free and fair competition; protects the rights of consumers and balances the interests of all stakeholders; promotes availability of affordable, quality services to all; and leads in the development of the public utilities sectors.

To support the GoR realise the above missions, TradeMark East Africa (TMEA) with financial support from the United States Agency for International Development (USAID) implemented the project "*TMEA Funded ICT For Trade Systems in Rwanda*". The project has supported in setting up online ICT platforms that enables electronic applications and issuance of trade regulatory documents issued by the above three institutions. Furthermore, TMEA, through this project has helped in the establishment of online ICT systems for the Central and Northern corridors. The project was implemented from 2018 through 2021. This end of project evaluation is required to establish the extent to which project's objectives were achieved.

The final evaluation has been conducted from January to April 2022 and it has used a multi-method consultative approach majorly based on qualitative techniques including in-depth interviews, literature review and field observations to gather necessary information. The theory - based evaluation then conducted its analysis and reporting based on the six evaluation criteria under which the key findings are summarised below.

**Relevance:** The project theory of change is rational with logical interlinkages between the outputs and project impact "improved acquisition of trading certificates and or licences". There is a shortcoming in project impact that is not an end in itself, it could be broadened to demonstrate results of improved online acquisitions of trading authorisations from different local institutions and corridors. There is strong alignment between project objectives and the mandates, and missions of NAEB, RBS, RURA, the Central and Northern Corridor Observatories. End beneficiaries needs fit well in project targets by getting familiar with the built ICT for trade systems by TMEA.

**Coherence:** The project is as a key contributor to realisation of Rwanda's vision 2050, National Strategy for Transformation 2017 - 2024 and the National Export Strategy 2021 – 2030. The project implemented anchor initiatives that provided upstream technical resources needed to guide strategic interventions at national level, while synergising with TMEA projects that provided financial resources needed for implementation.

**Effectiveness:** Almost all short-term outcomes were achieved. The project contributed to increased compliance of traders to trade facilitation measures of acquiring international required trading documents. Effectiveness of the Project was enhanced mostly by the project awareness creation and capacity building that contributed to achievement of the outcomes that relate to institutional and operational capacity, reporting and monitoring of ICT for trade systems. Partially achieved outcomes are mostly from interventions whose implementation was affected by COVID-19 restrictions such as regional cooperation activities and quantification of NTBs that remains challenging.

**Efficiency:** Project operations realised value for money through competitive procurement processes and leveraging human resources such as the technical assistance consultant and young professionals to support delivery at no additional cost. Project timelines were adhered to by adapting virtual tools for implementation during the COVID-19 pandemic. Equity and effectiveness were realised through outputs that are utilised by most stakeholders and contribute to consumer welfare. The project management and coordination arrangements were coherent with no redundancies or duplication.

**Impact:** Anecdotal change demonstrates project contribution to long-term change. The data from the sampled beneficiary respondents have shown that before automation it was very difficult to acquire the prerequisite documents for trading. For example, the average time of preparing an application for acquiring a certificate, licence or permit from RURA was 16 hours before automation and has become 2 hours after automation. The average cost to process a product certificate from RURA has reduced by 86 percent after the built ICT system was operationalized. The reduction in time and cost was observed also for RSB, RURA and the corridors' services.

**Sustainability:** Project implementation was embedded in existent public institutional structures with international obligations to the WTO that will continue in absence of project support. The main threat to sustainability is the substantial reliance on external funders to sustain management and maintenance of the systems.

### **Key recommendations**

1. There is a need to make all beneficiaries aware of the provided support in acquiring international trading documents;
2. The institutions that have benefited hosting the built systems are encouraged to domesticate the project outputs.

## **1: INTRODUCTION**

### **1.1 PROJECT DESCRIPTION**

TradeMark (Trade and Markets) East Africa (TMEA) is an aid-for-trade organisation that was established in 2010 with the aim of growing prosperity in East Africa through increased trade. It has its headquarters in Nairobi, Kenya and a presence in Burundi, Democratic Republic of Congo (DRC), Ethiopia, Malawi, Somaliland, Kenya, Rwanda, South Sudan, Tanzania, Uganda and Zambia.

TMEA operates on a not-for-profit basis and is funded by the development agencies of the following countries: Belgium, Canada, Denmark, Finland, France, EU, Ireland, the Netherlands, Norway, UK, and USA. TMEA works closely with East African Community (EAC) institutions, national government Ministries, Departments and Agencies, the private sector and civil society organisations to achieve its core objective of developing a sustainable and inclusive trade environment to improve total welfare of communities and households in Eastern Africa.

TMEA's Theory of Change (TOC) is anchored on two strategic outcomes: (i) Reduced Barriers to Trade; and (ii) Improved Business Competitiveness. TMEA is working with several trade agencies in the region to unlock informational and administrative barriers to trade through automation of various trade and business processes for government institutions as well as private sector entities directly involved in the facilitation of international trade.

In Rwanda, TMEA has supported different government regulatory agencies as far as the promotion of facilitating international trade is concerned. This has been done through the funding the ICT for Trade Systems Project.

#### **1.1.1 ICT for Trade System for the Rwanda Standard Board**

The Rwanda Standards Board (RSB) is a public National Standards Body whose mandate is to develop and publish National Standards, carry out research in the areas of standardisation, and to disseminate information on standards, technical regulations related to standards and conformity assessment, metrology for the setting up of measurement standards, among others. The Board was created from the old Rwanda Bureau of Standards (RBS) after decoupling regulatory and non-regulatory functions and upgrading of Units into Divisions. The intention was to have an institution that can respond to the changing business landscape in Rwanda and beyond. RSB is now a service provider while the standards enforcement functions, inspections, and legal metrology verifications, have moved to an independent department. The Organizational Structure of RSB therefore comprises four Divisions: National Standards Division, National Quality Testing Laboratories, National Metrology Services, and the National Certification Division.

In the pursuit of improving Rwanda Standards Board (RSB) service delivery and in line with the e-Government component of the National Information and Communication Infrastructure Policy (NICI Plan), RSB in collaboration with TMEA have developed and implemented a Management Information System (MIS), for the sole purpose of enhancing efficiency and capacity of the Board, especially in serving the trade community better in the areas of inspection and quality assurance of goods coming into and leaving Rwanda for the international market. With support from TMEA, RSB has automated

both internal and external processes and workflows, with an information portal accessible to importers and exporters. Implementation of the Information Portal enabled access to online services including Standards catalogue, application for Certification marks, stakeholder training calendar, general enquiries and feedback/complaints handling. Also, additional enhancements have been made to ensure to include the upgrade of the Laboratory Information Management System to support additional testing parameters for products as well as allow seamless communication between stakeholders and RSB regarding the results of their products.

### **1.1.2 ICT for Trade System for the National Agricultural Export Board**

National Agricultural Export Board (NAEB) is a department under the Ministry of Agriculture in Rwanda. The Board is charged with the responsibility of issuing Certificates of Quality as well as Certificates of Origin for individuals and companies exporting tea, coffee, and horticulture. NAEB's mandate includes testing and inspections of samples and consignments for agricultural export. Through support from TMEA, NAEB has developed an online platform that enables electronic applications and issuance of trade regulatory documents issued by the Board. The platform aims to ensure that tea, coffee and horticulture traders are able to save time and money during the acquisition of the necessary trade documents. The NAEB platform also aims at increasing transparency of transactions through exposing of information and process status to all the stakeholders involved in the supply chain.

### **1.1.3 ICT for Trade System for the Rwanda Utilities Regulatory Authority**

The Rwanda Utilities Regulatory Authority (RURA) was created with the mission to regulate key public utilities namely: telecommunications network and/or telecommunications services, electricity, water, removal of waste products from residential or business premises, extraction and distribution of gas and transport of goods and persons. RURA's vision is to be a leading global regulator of public utilities. To achieve this RURA is keen to: promote free and fair competition, protect the rights of consumers and balances the interests of all stakeholders, promote availability of affordable, quality services to all; and lead in the development of the public utilities sectors. Rwanda Utilities Regulatory Authority (RURA) is mandated to regulate certain public utilities, namely telecommunications, information technology, broadcasting and converging electronic technologies including the internet and any other audio-visual information and communication technology, postal services, renewable and non-renewable energy, industrial gases, pipelines, and storage facilities, water, sanitation, transport of persons and goods, radiation Protection; and other public utilities, if deemed necessary.

Through support from TMEA, RURA has implemented a Converged License Management System (CLMS), a system which will increase the regulator's productivity by enabling the agency to offer their regulatory service electronically, especially on licenses under the sectors above, for business and the Rwanda population at large.

### **1.1.4 ICT for Trade System for the Northern and Central Corridor Transport Observatories**

The ICT4Trade project has also helped in the establishment of the online platforms that help in easing the access to data related to the Northern and Central Transport Corridors. The Northern Corridor is a multimodal trade route linking the landlocked countries of the Great Lakes Region with the Kenyan maritime seaport of Mombasa. The Northern Corridor Transit and Transport Agreement



(NCTTA) is a treaty between the Member States of Burundi, Democratic Republic of Congo, Kenya, Rwanda, Uganda and South. The objectives of the agreement are based on 3 pillars of sustainable transport namely economic pillar aiming at promoting efficient and competitive transport; social pillar with the view to fostering an inclusive transport and the environmental pillar for a green freight transport.

The Central Corridor Transit Transport Facilitation Agency (CCTTFA) is a multilateral agency formed through an Agreement by the five Governments of the Republic of Burundi, the Democratic Republic of the Congo (DRC), the Republic of Rwanda, the United Republic of Tanzania and the Republic of Uganda. The Central Corridor is the integrated multimodal transport and logistics network that connects the Central Corridor Transit Transport Facilitation Agency (CCTTFA) Member States to the sea through the port of Dar es Salaam.

TMEA has supported both the Northern and Central Corridor Secretariats in developing corridor specific web-based observatories, which serve as the primary online repositories for access to information relating to corridor performance. In addition, and to ensure the Observatories remain relevant in providing accurate and timely information on key performance indicators, TMEA supports regular and continuous data collection from key corridor stakeholders, analysis of this data to make sense and meaning of it in line with corridor key performance indicators, and thereafter dissemination through the Observatories as well as digital and hard copy reports. This support includes engaging technical assistants who were attached to both corridors to support data collection, analysis, and dissemination. To complement support on software infrastructure and guarantee operationalization of the Observatories, TMEA has also funded establishment of ICT infrastructure that hosts the Observatories. With enhanced corridor performance data, it is expected that the Government of Rwanda would develop evidence-based policies to improve trade performance for the importation, transit, and export of goods into and out of Rwanda.

## **1.2 EVALUATION OBJECTIVES**

This study aimed at undertaking an end of project evaluation for the ICT systems for Rwanda Standards Board, National Agricultural Export Board, Rwanda Utilities Regulatory Authority, and the Rwanda-specific aspects of the Northern and Central Corridor Transport Observatories. The evaluations for RSB, NAEB and RURA are detailed in this report, however, a light touch review was planned for the Observatories, considering the implementation of the Observatories corridor specific interventions with all member states of the northern, as well as central corridor. The report for the Observatories has been integrated into this evaluation report to form one.

In fact, the objective of the evaluation was to examine the short term and longer-term results of the above projects as articulated in both TMEA's Theory of Change and project Monitoring Plans. The criteria to evaluate the project, at the very minimum, have been aligned with the OECD-DAC evaluation criteria to assess relevancy, efficiency, effectiveness, sustainability, coherence, and impact governance and inclusiveness of the projects. In addition, lessons learnt (what went well and what did not) were extracted and documented and best practices at each level of project implementation for the project and a range of knowledge products (e.g., guidelines, reports, case study) that will be useful for TMEA have been developed. Based on the identified lessons, recommendations have been provided for adaptive management and to guide future programming.

More specifically, this study aimed at answering the following evaluation questions:

- a. **Relevance:** Are we doing the right thing? How important or significant the interventions in relation to its intended and unintended target group, the Government of Rwanda and TMEA strategic requirements and priorities are?
- b. **Efficiency:** To what extent and how have the project interventions been effective and achieved good Value for Money (VfM)? This would require a comprehensive value for money analysis of the project's entire Project life Cycle from the point of making the decision to implement the system to the actual cost of implementing and maintaining the system.
- c. **Effectiveness:** The extent to which the project interventions have achieved targeted objectives as articulated in the projects Monitoring Plans.
- d. **Impact:** To what extent did the intervention contribute to reaching higher level Trade and Development objectives as articulated in TMEA's Theory of Change e.g., reduced trade costs, increased trade, reduced poverty, increased employment etc)? What is the impact or effect of the intervention in proportion to the overall situation of the target groups or those effected?
- e. **Coherence:** To what extent did this intervention support and/or undermine or was supported and/or undermined by other policy interventions within the implementing partner and the government of Rwanda at large.
- f. **Sustainability:** To what extent will the operation of the projects, as well as its benefits continue to hold post TMEA's support?
- g. **Theory of Change:** The extent to which the output/outcome/impact mapping and assumptions underlying the results logic for the projects are valid and/or comprehensive. The evaluators should rigorously assess the validity of the causal pathways defined in the theory of change for the projects and assess the appropriateness of project results indicators in testing the validity of the causal pathways defined in the project's results chains.
- h. **Governance and inclusiveness:**  
**Governance:** assess the set-up project management structures adopted and the extent to which these facilitated efficient delivery of project objectives and results. **Inclusiveness:** did the project adhere to diversity (including gender and different sizes of traders) in all its implementation phases?

### 1.3 UNDERSTANDING OF THE ASSIGNMENT

The overall objective of this assignment was to undertake the end of project evaluation of TMEA funded ICT for trade systems in Rwanda against the relevance, efficiency, effectiveness, coherence and sustainability of the project's fruits. The host agencies of the project concerned by this evaluation are RSB, NAEB, RURA, the Central and Northern Transport Observatories.

### 1.4 ANTICIPATED TASKS AND ACTIVITIES

For the institutions of which the baseline study has been carried out, the questionnaires and sample used in the baseline surveys have been adapted and updated in order to reflect the current reality. During the compilation of inception report, questionnaires for the endline evaluation and sampled project beneficiaries have been developed and discussed with TMEA Team for approval. The

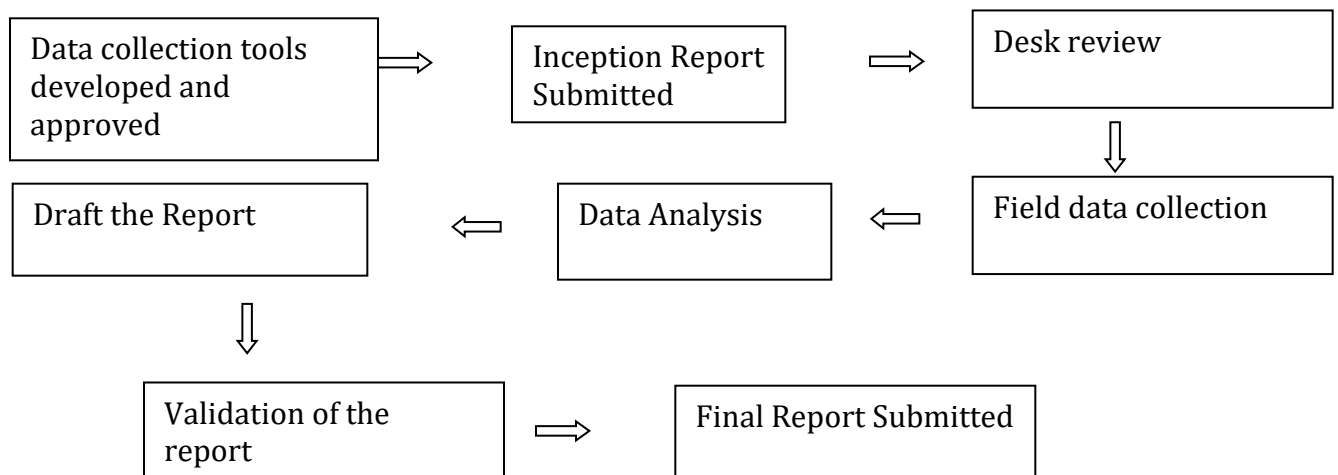
Computer Assisted Personal Interviews (CAPI) application has been developed after the questionnaires were approved.

## 2: EVALUATION APPROACH AND METHODOLOGY

### 2.1 PLANNING AND DESIGN OF THE ASSIGNMENT

This assignment was executed in the spirit of consultation and collaboration, drawing upon the insights and priorities of TMEA. The participatory approach has ensured that we were asking the right types of questions and we had the right sample that ultimately led to valuable data for decision-making and the ability to develop a sound report.

The methodological approach has followed the sequence below:



#### 2.1.1 Sample Frame and Sample Design for Service Beneficiaries

For the service beneficiaries, the endline evaluation study was done through the process of the probability surveys based on complete coverage of the firm level, and as a better way of collecting monitoring and evaluation data and finding better precise survey estimates. TMEA endline survey has used a multi-stage sampling methodology by which, the first stratification was on the level of TMEA partners (NAEB, RSB and RURA), then a level of geographical and economic activity stratification has been added.

Therefore, the sample design to be used became a multi-stage stratified design according to which at the first stage of sampling, a stratified sample of a combination of the 4 TMEA partners, economic activity and geographical locations of beneficiaries is drawn with probabilities proportional to size measured in terms of the number of companies in each constructed stratum, and at the second stage of sampling, sampled companies are randomly selected within each sample stratum.

### 2.1.2 Sample size for the service beneficiaries

The sample size determination in most business-based surveys with multi-stage stratified design is based on the principle of first calculating the required sample size assuming a simple random sample design and no non-response. The results are then extended to allow for non-response and deviation from simple random sampling.

The application of this principle with the choice of parameters described below has led to the sample size of 168 companies. To construct the sample size the following formula and parameters have been used:

$$n = \frac{\frac{Z^2 * p(1 - p)}{e^2}}{1 + \left(\frac{Z^2 * p(1 - p)}{e^2 N}\right)}$$

Where:

- Z:** Z score
- p:** population proportion
- e:** Margin of Error
- N:** population size

In our calculations we have opted to have **a confidence interval of 95%** which is the most common used in social and economic surveys. Our population proportion (**p**) which is the variable of interest was built using a proxy as we did not have prior or historical information to our population frame. We did a research on business and enterprise surveys in Rwanda and looked for indicators that can fit with the area of intervention of TMEA, thus we found two surveys i.e. the World Bank Enterprise Survey 2011 (WBES 2011) and the Rwanda Integrated business Enterprise Survey 2017 (IBES 2017). From these surveys we estimated an indicator which was considered as our (**p**). On one hand with WBES 2011, we considered three indicators and took the percentage of companies that reported the highest number of days to deal with regulations. The table below shows the results:

Table 2.1: The percentage of companies that reported the highest number of days to deal with regulations

<b>% of companies with highest number of days</b>	<b>%</b>
To clear exported goods through customs	3.7%
To clear imported goods through customs	2.3%
To obtain import license	2.8%

Source: NISR, IBES 2017

On the other hand, with (IBES 2017), we considered an estimate of factors that are affecting companies in Rwanda especially in areas of “Regulatory environment”. Therefore, we tabulated the percentage of companies that reported to have serious and very serious problems with regulatory environment.

Table 2.2: Percentage of companies that reported to have serious and very serious problems with regulatory environment

<b>Average number of firms with:</b>	<b>Serious problem</b>	<b>Very serious problem</b>	<b>Total</b>
Regulatory environment	3.5%	0.6%	4.1%

Source: NISR, IBES 2017

This estimate has shown that around 4% of companies in Rwanda have either serious or very serious problems with regulatory environment. Thereafter, as IBES 2017 proxy was almost the same when compared to WBES 2011 proxy we opted to use the IBES 2017 proxy as it was the one near in time with TMEA baseline survey reference period. Thus, our variable of interest (*p*) was **0.04**.

The **margin error (e)** was set to be **0.03** according to the best practices used by most business surveys, and in order to maximize the sample size.

When using the above formula, we arrived to a sample size of 159 companies that represented 3,086 companies as done in the baseline survey. Therefore, in the first stage we divided our frame in 65 strata according to TMEA partner institutions, economic activity and geographical locations of TMEA beneficiaries.

### 2.1.3 Design of Survey Tools

The CAPI application for tracing questionnaire for sampled participants has been designed. The questionnaire captured information related to:

- Service delivery through the built ICT system for NAEB;
- Service delivery through the built ICT system for Rwanda Standards Board (RSB);
- Service delivery through the built ICT system for Rwanda Utility Regulatory Authority (RURA), and;
- Service delivery through the built ICT system for the Northern and Central Corridor Transport Observatories

The questionnaire has been reviewed and adjustments made with the involvement of TMEA. The final survey data collection tools were then designed in the Census and Survey Processing System (CSPro) through its CS Entry Smartphone version, for efficiency and enable interviews to be carried out using android smartphones or tablets. CSPro is designed to be as user-friendly as possible, yet powerful enough to handle the most complex applications. It can be used by a wide range of people, from non-technical staff assistants to senior demographers and programmers. CSPro supports data collection on android devices (phones and tablets).

### **2.1.4 Training of Enumerators on Survey Tools**

A two-day training has been organized for enumerators to be familiar with the final evaluation tools, troubleshoot issues with the questionnaire and principles of data quality control. Furthermore, the enumerators have been trained on completing the questionnaires using smart phones. It has been an opportunity to explain the safety and ethical protocols. This training was followed by a pilot survey for testing the questionnaire knowledge of enumerator on survey tools in general.

## **2.2 DATA COLLECTION PROCESS AND FIELDWORK**

### **2.2.1 Field organization**

The data collection has been done by 10 enumerators for a period of 10 working days and covered a sample size of 159 companies from a frame of 3,086 companies. The target companies were from the previously sampled project beneficiaries during the baseline study for the longitudinal tracking, in order to know how the project is relevant, efficient, effective, impactful, coherent, and sustainable.

### **2.2.2 Data preparation and analysis**

The raw data collected using smart phones have been directly stored in a prepared folder for further reference. A copy has been edited for errors and omissions, using Stata packages. After exporting data into .dta STATA data file, it has then been possible to produce a complete dataset and extract relevant tables, bar and pie charts related to objectives and indicators of the evaluation for deeper data analysis and interpretation.

### **2.2.3 Report structure**

At the end of the exercise, this compiled report to be validated and approved by TMEA comprises:

- The introductory section one, describing the project background and objectives;
- Section two describing the methodology used for data collection;
- Section three, showing findings from the described data summarized by tables, charts; and,
- A concluding section four.

In addition, a soft copy of raw data and edited data from the field have been provided in STATA and Excel formats.

### 3. PRESENTATION OF THE EVALUATION RESULTS

This section presents the findings of the evaluation that has targeted TMEA's ICT4T project beneficiaries (companies), Central and Northern Corridors as well as local public institutions. The public institution referred to in this report are: NAEB, RSB and RURA.

As stated in section two, TMEA has provided a list and contacts of institutions and companies of all target beneficiaries from which a sample has been randomly selected for tracing so that a longitudinal study can be carried out. The sample was revisited to assess its representativity. Therefore, the representativity of the sample from all the interventions areas where the project is being implemented has been considered.

#### 3.1 RELEVANCE

Key Evaluation Questions:

- Are we doing the right thing?
- How important or significant is this intervention in relation to its intended and unintended target group, the Government of Rwanda and TMEA strategic requirements and priorities?

Relevance of the ICT4Trade Systems Project is assessed from two-fold. First the review of the rationale of the project's theory of change is carried out and secondly the analysis of the extent to which the project was responsive to the implementing partner institutions and target beneficiaries' needs and priorities.

The ICT4Trade Systems Project's rationale is the impact of "improving the facilitation of applying for trade licences and certificates from local public institutions and accessing timely needed information from the Central and Northern Corridors" will be realized through the following seven intermediate outcomes:

- Improved efficiency and effectiveness in the management of RSB Trade Systems and Procedures.
- Improved governance in the administration of the RSB Trade Systems and Procedures.
- Improved efficiency and effectiveness in the management of NAEB Trade Systems and Procedures.
- Improved governance in the administration of the NAEB Trade Systems and Procedures.
- Improved efficiency and effectiveness in the management of licensing operators and importers of various utilities services and goods in Rwanda.
- Improved governance in the licensing of goods and services in the utilities sector in Rwanda
- Eastern Africa Corridor actors improve capacity of resolving corridor challenges through the use of trade and transport observatory evidence.

Therefore, the linkage between the project impact and intermediate outcomes is assessed as coherent and rational and largely in line with the expectations of the World Trade Organization (WTO) Trade Facilitation Agreement (TFA). The WTO TFA contribute to the improvement of trade efficiency



worldwide, encouraging economic growth by cutting red tape at borders, increasing transparency and taking advantage of new technologies including ICT facilitating innovations. The TFA has entered into force and is binding on all WTO members.

To realize the intermediate outcomes, the ICT4Trade Systems Project has nineteen short-term outcomes, of which fifteen are for RSB, NAEB and RURA with five each; while the other remaining 4 are for corridors. The nineteen short-term outcomes are all linked to the six intermediates outcomes and they are outlined below:

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>- Improved access and use of the RSB trade regulatory services.</li> <li>- Improved capability of the RSB to network and connect with other trade actors.</li> <li>- Improved competency in Accessing and using the enhanced RSB system.</li> <li>- Improved coordination and cooperation between the RSB and other trade actors.</li> <li>- Improved compliance and enforcement of RSB trade regulations.</li> <li>- Improved access and use of NAEB trade regulatory services.</li> <li>- Improved capability of NAEB to network and connect with other trade actors.</li> <li>- Improved competency in accessing and using the new NAEB MIS.</li> <li>- Improved coordination and cooperation between the NAEB and other trade actors.</li> <li>- Improved Compliance and Enforcement of NAEB trade regulations.</li> <li>- Improved access and use of RURA regulatory services.</li> </ul> | <ul style="list-style-type: none"> <li>- Improved capability of RURA to network and connect with other trade actors and or agencies.</li> <li>- Improved competency in accessing and using RURA licensing framework.</li> <li>- Improved coordination between RURA and other trade actors.</li> <li>- Improved compliance to and enforcement of utilities' licensing regulations.</li> <li>- Northern Corridor actors have increased access to trade and transport observatory information and data.</li> <li>- Northern Corridor agencies improve the monitoring of corridor growth and performance.</li> <li>- Northern Corridor actors have increased awareness and knowledge of corridor challenges through the trade and transport observatory.</li> <li>- Northern Corridor agencies enhance coordination and collaboration among corridor stakeholders.</li> </ul> |
|---|---|

Regarding the ICT4Trade Systems Project's fitness for purpose in relation to the ICT4Trade Systems beneficiaries, there is clear alignment between the aims of the project, reflected in the project results chain, and the mandates and missions of almost all the public organisations that host the systems, as well as the needs of the targeted traders. To demonstrate this relevant linkage, in the table below, the evaluation reviewed the mission statements of the target institutions to confirm how aligned they are with the support project's work. All the organisations reviewed, to varying extents, focus on enhancing business competitiveness, growth and trade promotion, all of which are reflected in the ICT4Trade Systems Project results chain. Hence the project is assessed as fit for purpose as its main objectives align and facilitate its target beneficiaries' missions and mandates.

**Table 3.2: Relevance of ICT4Trade Systems Project to the target institutions**

Organisation	Mission Statement
RSB	To provide standards-based solutions for Consumer Protection and Trade promotion for socio-economic growth in a safe and stable environment.
NAEB	To provide timely and cost-effective support services required for enhanced international competitiveness of the private sector in agricultural and livestock exports.
RURA	To be a leading global regulator of public utilities. In regulating public utilities, RURA: <ul style="list-style-type: none"> <li>• promotes free and fair competition;</li> <li>• protects the rights of consumers and balances the interests of all stakeholders;</li> <li>• promotes availability of affordable, quality services to all; and</li> <li>• leads in the development of the public utilities sectors.</li> </ul>
Central and Northern Corridors	To facilitate the development of integrated transportation and trade networks along the Central and Northern Corridors.

Regarding the private sector, particularly importers and exporters, as the beneficiaries, the project is assessed as fit for purpose as it focuses on addressing issues that present challenges to traders. The representatives of private sector associations consulted explain how the Project has provided them with a quick and low cost solution in the application of certificates or licences as stated in the following quotes:

*Quote 1: "No need for transport costs and carrying of hard copies".*

*Quote 2: "The systems have contributed to time management and saving of money".*

*Quote 3: "There is no more movement of going and coming back to head offices it is done automatically online".*

*Quote 4: "The application is done via emails, then after payment, it is easy for us to get the document we have applied for".*

Beneficiaries (Traders)

### 3.2 EFFICIENCY

Key Evaluation Questions:

- To what extent and how have the project interventions been effective and achieved good Value for Money (VfM)?

This sub-section is about a comprehensive value for money analysis of the project's entire PROJECT life cycle from the point of making the decision to implement the system to the actual cost of implementing and maintaining the system. A comparison with other similar interventions

implemented by other organisations or countries to demonstrate the analysis has been considered. Value for Money (VFM) is the optimum combination of whole-of-life costs and quality (or fitness for purpose) of the project to meet the user's requirements.

### **3.2.1 Efficiency at operational level**

Efficiency at the operational level is analysed through the extent to which the ICT4Trade project presents value for money, i.e., was the work well worth the money spent on it. VFM assessment focuses on economy, efficiency, effectiveness, and equity aspects of the project. In all these aspects we assess how the project leveraged costs and impact and optimised resources.

**Economy:** The TA was recruited through competitive bidding which ensured the process provided economical pricing of the selected offer. The TA engaged in not only capacity building work but also design and review of ICT infrastructures at the implementing institution which complemented project results. For example, the operationalization of NAEB coffee sorting and grading facility that is expected to reduce the time and cost of sorting and grading coffee for exporters and Technical Assistance for Sanitary and Phyto-sanitary measures and other export market third party certification requirements.

**Efficiency:** Implementation of activities, especially those that required physical contact such as sensitisations, capacity building activities, regional dialogues and ICT4Trade meetings were in many cases delayed by outbreak of the COVID-19 pandemic that resulted in restrictions on meeting and gatherings. Nevertheless, the project adapted to virtual meetings that not only ensured continuity of activities and compensation for lost time, but also reduced the money required for implementation.

**Effectiveness:** The roadmaps and strategies developed with facilitation of the TA are currently being used by RSB, NAEB and RURA to develop specific projects for funding by different development partners. This is evidence that the products from the programme are being utilised even in a resource constrained environment. This also exhibits ownership of the roadmap and strategies and sustainability of the gains from these strategic documents. However effective implementation of the roadmaps and strategies is being impacted by the substantial counter-measures of COVID-19 and under-staffing.

**Equity:** Though not explicitly elaborated in the project's theory of change the ICT4Trade project through the ease of acquiring trading licences and certificates for production and products, and more specifically, elimination of NTBs contributes to consumer welfare by addressing factors and issues that commonly raise market prices for households. Furthermore, this NTB elimination has enabled more producers and traders to access more markets, which also in turn increases consumer welfare, hence equity in outcomes.

### **3.2.2 Efficiency of project management and coordination arrangements**

The project management and coordination arrangements used a hybrid in which key roles and responsibilities were shared between TMEA, at regional and Rwanda Country Programme (RCP), public institutions, and beneficiaries of the project.

The RCP led project design concluding in finalisation of the project appraisal report (PAR) that defined the mission and focus areas of the ICT4Trade project at country level, in the regional context. The design was completed in consultation with RSB, NAEB, RURA and the Corridor Observatories. The RCP was also responsible for contract management and M&E of deliverables of the TA. The TMEA regional office led the procurement of the contractor and has provided technical guidance and project oversight through the Trade Facilitation Department. The TA was responsible for delivering the project.

The ICT4Trade project management and coordination arrangements are assessed as coherent with no redundancies or duplication that ensured efficient delivery of the project, reflected in the effective realisation of project outputs. Involvement of especially the above institutions in the planning of the project including disclosing of resources available to implementation ensured effective collaboration and efficient delivery of the project.

The only gap in management and coordination, with possibility for improvement, is the M&E mechanism for the project. Much as the RCP led M&E planning and implementation, there is no explicit budget line for M&E activities at project implementation levels, i.e., there are no M&E roles or budget at the implementing partner level. This limited the quality of activity and results performance monitoring at the output level. Future projects need to consider allocating resources to M&E by implementing partners, not only for accountability purposes but also to strengthen ownership of projects.

### **3.3 EFFECTIVENESS**

Key Evaluation Questions:

- To what extent to which the project interventions have achieved and/or exceeded targeted objectives as articulated in the projects Monitoring Plans?

The effectiveness was assessed by analysing the extent to which different targets set at short-term outcomes level were achieved. This analysis is done by comparing views and responses shared by project stakeholders that participated in the ICT4Trade Systems project interventions and documentation used to verify information gathered from the stakeholders. The findings presented below are structured by the nineteen short-term outcomes of the project. These nineteen short-term outcomes are all linked to the seven intermediates outcomes for RSB, NAEB and RURA with two intermediate outcomes each and one intermediate outcome for the Central and Northern Corridors.

### **3.3.1 Effectiveness of RSB's outcomes**

For RSB, the Staff have learnt how to use the system and know the kind of impact the online system has for both users and services beneficiaries. This system has brought efficiency and effectiveness in the delivery of services within RSB. For external RSB stakeholders, there is an increase at the speed in which RSB is delivering services to them since the internal processes of RSB are now fully automated.

### **3.3.2 Effectiveness of NAEB's outcomes**

For NAEB, the following are the target groups and how they were affected by the effective project outcomes:

1. External stakeholders (Traders-Tea, coffee): With the go live of the electronic invoicing, this has provided a more convenient way of payment to the traders. It is expected that this saves some time and cost for the traders in the long run.
2. Internal stakeholders: These are the officials who render services to their external stakeholders. With the ongoing work around the Rwanda Single window integrations and the RICA integration, this will affect how the officials work because some aspects of the integration will not need any human intervention e.g the RICA-NAEB integration will eliminate the application approval step on the NAEB and RICA side.

### **3.3.3 Effectiveness of RURA's outcomes**

RURA's Staff have learnt how to use the system and know the kind of impact the online system has for both users and services beneficiaries. This system has brought efficiency and effectiveness in the delivery of services within RURA. For external RURA's stakeholders, there is an increase at the speed in which RURA is delivering services to them since the internal processes of RURA are now fully automated.

### **3.3.3 Effectiveness of the Central and Northern Corridors' outcomes**

The staff at the Central Corridor Transit and Transport Facilitation Agency (CCTTFA) have been given access to the toolkit that was developed and have had the opportunity to interact with it. This has allowed them to give the developers timely feedback so that the final tool be suitable for the desired purpose. Through this interaction with the system, they have also gotten to learn about how it works and will therefore be well equipped to use it. The external stakeholders like revenue authorities, ministries of transport, environment, the private sector, etc. have received insightful reports from CCOP that have provided information that shall be useful in their daily operations and when formulating new policies.

The continuous collection of data from stakeholders to update the performance indicators was done. The technical assistants for the project, including a database specialist, communications expert and a field supervisor, continued offering support in data collection, processing and dissemination. The recruitment of a Statistician Technical Assistant was also completed. The inclusion of an experienced statistician in the CCTO team is expected to improve on the quality of reports that will be published.

The discussions on direct integration with Burundi Revenue Authority (OBR) was completed and implementation is expected to commence in 2022. Discussion on direct integration with Rwanda Revenue Authority (RRA) and Tanzania Ports Authority (TPA) are still ongoing.

Like for the CCTTFA, the Staff at the Northern Corridor Transit and Transport Coordination Authority (NCTTCA) have been given access to the toolkit that was developed and have had the opportunity to interact with it. This has allowed them to give the developers timely feedback so that the final tool be suitable for the desired purpose. Through this interaction with the system, they have also gotten to learn about how it works and will therefore be well equipped to use it. The external stakeholders like revenue authorities, ministries of transport, environment, the private sector, etc. have received insightful reports from NCOP that have provided information that shall be useful in their daily operations and when formulating new policies.

### 3.4 IMPACT

Key Evaluation Questions:

- Does the intervention contribute to reaching higher level Trade and Development objectives as articulated in TMEA's Theory of Change e.g., reduced trade costs, increased trade, reduced poverty, increased employment etc)?
- What is the impact or effect of the intervention in proportion to the overall situation of the target groups or those effected?

An impact evaluation should only be undertaken when its intended use can be clearly identified and when it is likely to be able to produce useful findings, taking into account the availability of resources and the timing of decisions about the intervention under investigation. The impact criteria of ICT4Trade Systems Project evaluation aimed at identifying any early changes including positive effects from improved transparency, simplification, harmonization, and standardisation of operations. The impacts of these changes are mostly assessed in terms of reductions in time and cost of getting the licences or certificates processed and granted. Also unintended changes, both positive and negative were interrogated. Although this is not an impact assessment, this evaluation only takes stock of examples of what “success looks like” within and beyond the outcomes of the project.

For example, based on the data collected from the beneficiaries of RURA's built ICT system, the average cost to process a product certificate in RURA before automation was 38,500 Rwf and after automation the average cost fell to 5,483 Rwf. That is, the average cost to process a product certificate from RURA has reduced by 86 percent after the built ICT system was operationalized. This has been observed for all beneficiaries of services from NAEB, RSB and Corridors. Furthermore, the average time for acquiring a certificate, licence or permit from RURA was sixteen (16) hours before automation for the preparation of an application and has decreased to two (2) hours after automation. Table 3.3 details the changes in time after automation for submitting an application, review an application, audit management process, and collecting the permits, licences or certificates.

**Table 3.3: Average time in hours for acquiring a certificate, licence or permit from RURA before and after the ICT system was built**

Process	Before automation	After automation
1. Preparation of an application	16	2
2. Submission of application	7	3
3. Review of application by the directorate	17	13
4. Audit Management Process- Stage 1	27	16
5. Audit Management Process- Stage 2	10	11
6. Collection of permits/licences/certificates	29	36

Source: Endline evaluation outcome, 2022

In addition, the consulted beneficiaries of RSB services affirm that there has been a great decrease in time that is required to purchase Rwanda's standards from 124 hours before automation to 4.1 hours after automation. The time required to apply for the product certification has fell from 18.2 hours to 4.6 hours after automation. More of the gained time for applying for different certificates is displayed in Table 3.4.

**Table 3.4: Average time it takes to submit the request and get final approval of the RSB services**

No	Process	Time (hour) before automation	Time (hour) after automation
1	Purchase Rwanda Standards	12.4	4.1
2	Apply For Made In Rwanda Certification	3.3	0.8
3	Apply For System Certification	6.3	2.6
4	Apply For Calibration	6.3	1.8
5	Apply For Authorization to Break Seal	5.6	2.4
6	Apply For Lab Designation	9.1	1.9
7	Apply For Product Certification	18.2	4.6
8	Apply For Training	6.6	5.0
9	Apply For Metrology Verification	3.8	1.9
10	Apply For Metrology Licenses	10.2	1.3
11	Apply For Internship	5.5	2.4

Source: Endline evaluation outcome, 2022

Also the time for conducting tests from sample registration to issuance of a certificate to clients for alcoholic beverages in RSB is taking between one day and 7 days while it used to even up to 14 days. As illustrated in Table 3.5.

**Table 3.5: Time for conducting tests from sample registration to issuance of certificate to clients for alcoholic beverages (RSB)**

Means	Before MIS	After MIS
1-7 days	40.0	60.0
7-14 days	20.0	0.0
Other	40.0	40.0
Grand Total	100.0	100.0

Source: Endline evaluation outcome, 2022

The percentage share of indirect costs incurred while seeking services from NAEB was made mainly of transport cost by 72.2 percent before automation and after automation the transport cost share in the total cost has diminished drastically to 11.1 percent. This is an indication that the cost to acquire a services from NAEB has decreased as a result of the implementation of the ICT4Trade Systems Project. This is also confirmed by the fact that the current cost composition is dominated by the transport cost at fifty percent which has reduced by the project (See Table 3.6 and Table 3.7).

**Table 3.6: Percentage share of indirect costs incurred while seeking for services at NAEB**

Cost	Before automation	After automation
Communication	8.3	50.0
Transport	72.2	11.1
Other	19.4	38.9
Grand Total	100.0	100.0

Source: Endline evaluation outcome, 2022

**Table 3.7: Cost component which is the greatest contributor to the cost**

Cost	Percentage
Communication	22.2
Processing fees to third parties	2.8
Transport	50.0
Other	25.0
Grand Total	100.0

Source: Endline evaluation outcome, 2022

The results of the collected data from NAEB's system show that there has been a great change of processing costs by decreasing as a result of automation (Table 3.8). The same results confirmed that the satisfaction with the process of acquiring services from NAEB is at 97.2 percent and that the



payment of facilitation fees based on recent engagements after automation is almost inexistent as confirmed by 94.4 percent of the respondents (Table 3.9 and Table 3.10).

**Table 3.8: Change of processing costs by decreasing as a result of automation**

Costs changed	Total
No	19.4
Yes	80.6
Grand Total	100.0

Source: Endline evaluation outcome, 2022

**Table 3.9: Satisfaction with the process of acquiring services from NAEB**

Satisfaction level	Total
Dissatisfied	2.8
Ok	2.8
Satisfied	52.8
Very satisfied	41.7
Grand Total	100.0

Source: Endline evaluation outcome, 2022

**Table 3.10: Payment of facilitation fees based on recent engagements after automation**

Facilitation fee payment	Total
No	94.4
Yes	5.6
Grand Total	100.0

Source: Endline evaluation outcome, 2022

The rating of the convenience of accessing information from the Central Corridor Transport Observatory built online systems is considered very accessible by the project target beneficiaries as presented in Table 3.11 and Table 3.12.

**Table 3.11: Rating the convenience of accessing services at the Central Corridor Transport Observatory**

Rate of accessibility	Before automation	After automation
Very accessible	0.0	60.0
Somewhat accessible	80.0	40.0
Somewhat not accessible	20.0	0.0
Grand Total	100.0	100.0

Source: Endline evaluation outcome, 2022

**Table 3.12: Rating the convenience of accessing services at the Northern Corridor Transport Observatory**

Rate of accessibility/Percentage	Before automation	After automation
Very accessible	50.0	50.0

Neither	50.0	50.0
Grand Total	100.0	100.0

Source: Endline evaluation outcome, 2022

### 3.5 COHERENCE

**Key Evaluation Questions:**

- To what extent did this intervention support and/or undermine or was supported and/or undermined by other policy interventions within the implementing partner and the government of Rwanda at large?

The coherence of the ICT4Trade project is assessed through the analysis of the alignment of the project's targets and interventions to the implementing institutions' strategies and interventions. It also reviews the extent of synergy between the project and TMEA's other work in Rwanda that make up a significant component of the national trade ecosystem.

Rwanda's vision 2050 that articulates the country's long-term strategic direction is anchored around five pillars that provide the chosen pathways to delivering upper middle income by 2035 and a high-income country by 2050. The second pillar of the vision is "competitiveness and integration" underpinned by eight strategic areas of focus. The seventh focus areas is "strengthening export competitiveness and trade connectivity". This area aims to foster cross-border and intra-Africa trade through several strategic interventions including, harmonising policies and practices. Based on this vision the ICT4Trade project is assessed as fitting well with Rwanda's long-term vision and a key contributor to interventions that fill the gaps identified as priority areas of action under this vision by easing access to trading licensing and certification documents.

The National Strategy for Transformation 2017 - 2024 (NST1) is the implementation instrument of the first seven years in the journey to vision 2050. The fourth priority under the economic transformation pillar aims to growth Rwanda's exports by 17% annually through various strategic interventions that include "reducing the cost of doing business and facilitating trade". This inherently aligns with the intermediate outcomes of the ICT4Trade project that aim to improve efficiency and effectiveness in the management and the governance in the administration of the Trade Systems and Procedures in RSB and NAEB; as well as to improve capacity of resolving corridors' challenges through the use of trade and transport observatory evidence. Therefore, the ICT4Trade project is fully complements the NST1 at both the macro and micro levels of the trade ecosystem.

The National Export Strategy 2021 – 2030 (NES III), has five strategic objectives, all of which the ICT4Trade project is assessed as contributing to realising. The strategic objectives of the NES III to which the project contributes to the most include improving the export business environment; and

enhancing cross border trade. Under these two objectives the NES III proposes various strategic interventions including: reducing costs and regulations, sensitizing cross-border stakeholders on trade facilitation, implementation of the regional simplified trade regime (STR) and mitigation of Sanitary & Phyto-sanitary (SPS) issues and Technical Barriers to Trade (TBTs). The project has directly facilitated interventions in these critical areas defined by the NES III. Hence, the ICT4Trade project is assessed as fully aligned to the GoR trade objectives and is complementing strategic interventions coherently.

Within TMEA programmes at country level, the ICT4Trade project is assessed to have been coherently designed and adherently executed while complementing other projects under implementation by the RCP, but not necessarily financed by USAID. Apart from offering value for money, by achieving less with more, the synergy between projects has enabled the RCP leverage resources and results in work that is reducing time and costs of trade. Therefore the complementarity between the ICT4Trade project and relevant interventions implemented across the entire RCP portfolio has been demonstrated.

Key examples in the country programme that interact directly with the ICT4Trade project include the projects focused on strengthening frameworks to facilitate trade. In addition to the ICT4Trade project, TMEA provides support to RSB, NAEB and RURA through training their Staff on the use of ICT4Trade Systems beyond the end of the project. This directly links to the ICT4Trade project as a mechanism to integrate trade facilitation measures into national policies and practices. Other projects such as the development of one stop border posts, women in cross-border trade and automation of information systems, automatically coalesce with the ICT4Trade project work. This interaction of interventions has contributed to coherence at programme and national levels.

### **3.6 SUSTAINABILITY**

Key Evaluation Questions:

- To what extent will the operation of the projects, as well as its benefits continue to hold post TMEA's support?

The sustainability criteria reviewed the likelihood of continuity of change with focus on institutional capacities developed, mechanisms established to continue the ICT4Trade project work and threats to continuity of project benefits.

#### **3.6.1 Sustainability mechanisms**

The ICT4Trade project comprises of Government Staff from various public organisations whose mandates include strategies and interventions that directly or indirectly aim to facilitate trade through the provision of official trading documents. For instance, RSB provides quality and affordable standardization, metrology, quality testing and certification services for sustainable socio-economic development, NAEB facilitates the growth of business to diversify agriculture and livestock

commodity export revenues, RURA promotes free and fair competition; protects the rights of consumers and balances the interests of all stakeholders; promotes availability of affordable, quality services to all; and leads in the development of the public utilities sectors, while the Central and Northern Corridor Observatories promote co-operative transport policies and foster an efficient and cost-effective transit transport system within the Corridors. Given these mandates and the presence of these institutions in the ICT4Trade project, there is certain likelihood of continuity of trade facilitation. Having worked with these permanent structures, the ICT4Trade project has ensured that the work it facilitated is embedded in the institutional framework at national and regional levels, this contributed to ownership and sustainability of benefits and actions.

First, the Sanitary and Phytosanitary (SPS) project has two components: the Operationalisation of NAEB coffee sorting and grading facility that is expected to reduce the time and cost of sorting and grading coffee for exporters and Technical Assistance for Sanitary and Phyto-sanitary measures and other export market third party certification requirements. Regarding the operationalization of NAEB coffee sorting and grading facility, the Coffee Sorting and Grading equipment was delivered and installed at NAEB, 5 NAEB Staff trained on the use of the coffee sorting and grading machine and currently 3 cooperatives are served by the NAEB coffee sorting and grading facility. The second component of the project provide support for agricultural and livestock commodities and their systems to comply with sanitary and phytosanitary measures (SPS) and other export market third party certification. This is done through building national capacity to provide phytosanitary services and provide third party certification services, capacity of private sector to meet SPS requirements, ability of Rwanda's private sector in selected value chains to comply with third party certification requirements.

The biggest component of this second part of the project is the training of different players. However, the project has experienced a severe delay in the implementation of the planned activities, caused by multiple factors, including the COVID-19 pandemic limiting internal and international movements of consultants, the restructuring of the food inspection services and the turnover of project Staff. Despite the challenges, the training courses have been conducted including application of phytosanitary measures on chilli for export, HACCP standards application in slaughterhouses, dairy enterprises, honey processors, national procedures for meat inspections, and implementation of GlobalGap in horticulture production. Participants were officers of government agencies (RICA, NAEB, RSB and RAB) and managers of private enterprises. It was planned that after training, the coaching exercise will resume with the trained groups. However, it did not happen due to COVID-19 restrictions.

Regarding the strengthening and fully operationalization of National SPS/TBT Committee to fulfil their agreed obligation to WTO, OIE, IPPC and trading partners, the terms of Reference for technical assistance by an expert have been drafted and submitted to RICA for comments and approval. The project is also aiming at setting up an Association/network of private consultants to offer standards implementation and third-party certification services. 18 private consultants were trained in various standards schemes and Terms of Reference for the network have been drafted.

In addition, the following were the key results of the financial year that ended in 2021:

1. **Payment module:** This integration to the Bank of Kigali was technically completed. Discussions with the management was made to provide a green light to go live with the integration. This is still work in progress.
2. **Electronic invoicing:** This was also completed. The invoicing module basically sends electronic invoices for services rendered to stakeholders at NAEB.
3. **Rwanda Electronic Single Window (RESW) integration:** During the financial year, high level discussions were made regarding the new integration to the Rwanda Electronic Single Window. In the 3rd quarter of the financial year, technical design discussions began on how to share critical export data with the Rwanda Revenue Authority.
4. **NAEB-RICA integration:** This integration has to do with enabling tea/coffee traders apply for Phytosanitary export certificates through the NAEB portal after the approval process at NAEB is complete. This was completed although the integration faced a technical hiccup which demanded for a revision of the integration to something more stable. This is a work in progress and should be completed in the 1st quarter of the next financial year.

Second, for the phase two of RSB SWIF, the roll-out of the system to both internal and external stakeholders has been completed. The external stakeholders have been enlightened on how to use the system through video tutorials that have been uploaded online to the portal itself for easy access. The integration with the national payment gateway (Irembo) was fully completed and rolled out. So far, at least 524 standards requests have been made through the system, at least 112 standards purchased, at least 18 product certification applications, at least 5 system certification application, at least 609 test lab requests, at least 1,000 equipment calibrations registered and over 700 payments have processed through the system. The technical assistant has continued to offer support to the project throughout the whole period; he has managed to train several internal staff and also provide support to external stakeholders when they request for services.

Third, for the Central Corridor Transport Observatory, considerable progress towards completion of the development phase of the Central Corridor Transport Observatory Toolkit was made. End user testing of the toolkit was completed and training commenced. The completed system modules include the Geographic Information System (GIS), Business Intelligence toolkit, the Indicators dashboard and the Enterprise Service Bus; there is also an android mobile app that assists with conducting road surveys. The migration of data for the toolkit was also completed.

The supply and installation of most ICT infrastructure has been completed; items that have been delivered include the servers, air conditioner, firewall and UPS; the only pending items are the generator and fire suppression system. The electrical and civil works needed to connect the generator to the CCTO server room were also completed.

The continuous collection of data from stakeholders to update the performance indicators was also done. The technical assistants for the project, including a database specialist, communications expert and a field supervisor, continued offering support in data collection, processing and dissemination. The recruitment of a statistician Technical Assistant was also completed. The inclusion of an experienced statistician in the CCTO team is expected to improve on the quality of reports that will be published. The discussions on direct integration with Burundi Revenue Authority (OBR) which was completed and implementation is expected to commence in the following soon.

Discussion on direct integration with Rwanda Revenue Authority (RRA), Tanzania Ports Authority (TPA) and are still ongoing.

Fourth, for the Northern Corridor Transport Observatory, considerable progress towards completion of the development phase of the Northern Corridor Transport Observatory Toolkit was made. Key milestone under system development included completion of user testing of the toolkit and commencement of training. In addition, migration of data into the new toolkit was also completed enabling training using valid and accurate data which will help the team to further assess how well the system shall convey intended information to end users; using valid data will also allow the team to verify various system computations.

The toolkit has four key modules which include the indicators portal, the enterprise service bus, the geographical information system and the business intelligence toolkit with a mobile application that shall assist with conducting the road surveys. All these different system modules are meant to assist with data collection, processing and publishing of the transport observatory information. The equipment is expected to be delivered soon. The upgrade of the server room shall ensure Northern Corridor has a tier 2 server room with modern equipment that shall enable to the toolkit to run efficiently.

The technical assistants (a communications expert, a database expert, a statistician and field supervisors) have continued to support the project in data collection, processing and dissemination. The technical assistants also assisted in the development of a special feature to assess the impact of Lamu and Kisumu ports to regional trade.

Finally, for RURA, the project has digitized licensing, inspection of imported electronics and allied goods and protection of Intellectual Property Rights (IPRs). The project has also contributed towards Government of Rwanda's ambition to have zero trips and zero paper in all Government services.

### **3.6.2 Threats to sustainability**

The project has experienced a severe delay in the implementation of the planned activities, caused by multiple factors, including the COVID-19 pandemic limiting internal and international movements of consultants, the restructuring of the food inspection services and the turnover of project staff. Some of the targets such as 2% reduction of interceptions at the Port of importing country for TMEAs supported value chain agricultural commodities and 25% of total trained traders certified on third party certifications through TMEA support in Global GAP, HACCP, Rain Forest S-Mark are likely to be affected.

In general, in the coming year, the risk posed by COVID-19 shall be mitigated by the vaccination program that has been laid out by the Government of Rwanda which shall see the majority of the population vaccinated and normal operations shall resume. The key project activities that require expenditure of a lot of money have ended so little resources shall be needed for the remaining activities.

## **3.7 CROSS-CUTTING ISSUES**

The ICT4Trade project was reviewed to establish the extent to which the cross-cutting issues defined in the project appraisal document have been addressed in project design, implementation, monitoring, and evaluation.

### **3.7.1 Gender and inclusion**

The ICT4Trade project has played an instrumental role in reducing the cost and time for applying for certificates and information access from the transport corridors. The beneficiaries (traders) have been trained on the use of online systems. Apart from the formal trade done by both men and women, it is estimated that 74% of small-scale cross border trade is are women. Therefore, the ICT4Trade Project have taken into account gender by not discriminating the beneficiaries. Other projects implemented by TMEA such as the One Stop Border Post (OSBP) have benefited small-scale traders especially women by providing more security associated with harassment and gender-based violence, as well as reduced time, money and border clearances required.

### **3.7.2 Poverty reduction**

The GoR's NST1 top four priorities, out of eight, for economic transformation are productive job creation, accelerated growth of exports, accelerated industrialisation and development of hard infrastructure for trade competitiveness. These four areas aim at improving the livelihood of Rwandans by increasing individual and household incomes and generating national revenues necessary to address social challenges that exacerbate poverty. The ICT4Trade project has been a main contributor to these areas by providing strategic guidance and technical resources to develop frameworks and interventions that are contributing to sustainable development and catalysing delivery of the four priorities. For example, establishing the online systems for services that were delivered at the head offices of RSB, NAEB, RURA and at the Transport Observatories has produced opportunity expenses from time and cost that are invested or spent in other activities in favour of both the traders and drivers.

### **3.7.3 Climate change and environment**

The ICT4Trade project has contributed to climate change adaptation and mitigation both directly and indirectly. The direct impact on climate change has been through the project's support to automation of systems and processes. Putting online for example the RSB, NAEB, RURA and Transport Observatories' operations of certificates application, exporter's certificates, license convergence and the others, has contributed in several ways to climate change mitigation. This is mainly through reducing use of paper and elimination of trips to process the now automated procedures. These two outputs will continue to reduce the carbon footprint of trade processes. The indirect contribution of the ICT4Trade project is through its support to other RCP projects that are implementing mostly trade facilitation infrastructure projects. Through for example MININFRA and RTDA's projects such as the OSBP and lake Kivu harbours projects, GHG emissions will be substantially reduced by mostly decreasing congestion, transit time and through use of more efficient transport means such as water transport instead of road. The ICT4Trade project's contribution to this is mainly by bringing together all stakeholders for more coordinated implementation, as well as facilitating development of strategies and policies.

## **4. LESSONS LEARNT**

The design and execution of the ICT4Trade Systems project has generated knowledge from experiences which offer opportunities for scale-up, replication and adjustments. In addition to the lessons that highlight opportunities and gaps in the implementation and design, key challenges were also identified during this evaluation.

### **4.1 PROJECT LEARNINGS**

The effectiveness enhancing of the ICT4Trade project has been instrumental in strengthening inter-agency collaboration for the ease of doing international trade. The strengthened online systems have managed to bring together different public institutions that in various ways play a role in trade processes and procedures in delivering trading licences and different international trading certificates. Therefore, the coordinated approach to inter-agency collaboration has mostly been effective in identifying and accelerating elimination of NTBs affecting exporters and importers in Rwanda and the Region as far as the time and cost of acquiring services from RSB, NAEB, RURA, Central and Northern Corridors Transport Observatories are concerned.

In the implementation of SPS, it has been observed that the organisation and implementation of so many courses in such a brief period of time have been challenging, but also exciting. The satisfaction of participants, as well as their level of learning has been the reward. RICA the programme implementer has been present and actively participated in the organisation of the courses, as well as by assisting the trainers and mediating with the participants. This provided a very good ground for ownership and the experienced for further development of the programme.

For RSB, as highlighted above, the Staff have learnt how to use the system and know the kind of impact it will have when it goes live. This system has brought efficiency and effectiveness in the delivery of services within RSB. For external RSB stakeholders, there is an increase at the speed in which RSB is delivering services to them since the internal processes of RSB are now fully automated.

Finally for the two transport corridors, their Staff have been access to the developed toolkits to get familiar with them. Through this interaction with the system, they have also gotten to learn about how it works and will therefore be well equipped to use it. In addition, the external stakeholders like revenue authorities, ministries of transport, environment, the private sector, etc. have received insightful reports from CCOP that have provided information that shall be useful in their daily operations and when formulating new policies.





## **4: CONCLUSIONS AND RECOMMENDATIONS**

### **4.2 EVALUATION CONCLUSIONS**

The effectiveness enhancing of the ICT4Trade project has been instrumental in strengthening inter-agency collaboration for the ease of doing international trade. Implementation of activities, especially those that required physical contact such as sensitisations, capacity building activities, regional dialogues and ICT4Trade meetings were in many cases delayed by outbreak of the COVID-19 pandemic that resulted in restrictions on meeting and gatherings. Nevertheless, the project adapted to virtual meetings that not only ensured continuity of activities and compensation for lost time, but also reduced the money required for implementation. With this the collected data from the beneficiaries have shown that before automation it was very difficult to acquire the prerequisite documents for trading. For example, the average time of preparing an application for acquiring a certificate, licence or permit from RURA was 16 hours before automation and has become 2 hours after automation. The average cost to process a product certificate from RURA has reduced by 86 percent after the built ICT system was operationalized.

In general, the built ICT for Trade SystemsRSB, NAEB, RURA and the transport corridors have contributed to the decrease of the processing and timely information access as a result of automation with the following main provided arguments:

- Services are delivered online;
- No need for transport costs and carrying of hard copies;
- It made the work easier;
- The systems have contributed to time management and saving of money;
- No transport cost, just pay for communication;
- There is no more movement of going and coming back to head offices it is done automatically online;
- It only requires internet connection;
- No need to use many pieces of paper for printing, and;
- Beneficiaries apply via emails, then after payment, it is easy for them to get the document they have applied for

### **4.2 RECOMENDATIONS**

The following recommendations have been suggested by the ICT for Trade Systems beneficiaries in order to help them get the best of the built systems:

- There is a need to deploy or engage of ICT Staffs to train users because it may happen that they do not master the online platforms functionalities;
- Efficiency of internet and training in ICT related to the online platforms have to be secured;
- Information related to certificates have to reach the beneficiaries through mobilization campaigns
- To make things easier again, all online fillable forms can be combined so that it can be compiled in one form.
- The software should be made available for every potential user

- This kind of requesting the services online is very important in this sector and it should be enhanced so that it can be fully automated.
- For coffee, sorting it is done two times, first with people who sort it manually and second the sorting machine, the system users suggest to pay this service one time.
- The systems need to be boosted because there are times where you can't find the link
- There is a need to encourage companies to use the online systems

## APPENDICES

### A 1: CASE STUDY: EXPORT PROMOTION THROUGH EASING OF ACQUISITION OF TRADE RELATED DOCUMENTS TO AGRICULTURE AND HORTICULTURE EXPORTERS

#### 1. Introduction

The National Agriculture Export Board (NAEB) was established by the Government of Rwanda (GoR) in 2017 with 16 missions of which one is to advise on the development and implementation of policy and strategies for developing exports of agricultural and livestock products meeting international market requirements; two is to provide timely and cost-effective support services required for enhanced international competitiveness of the private sector in agricultural and livestock exports; three is to participate in the setting and checking of quality standards for agriculture and livestock export commodities in collaboration with other relevant institutions; and four is to issue certificates of authenticity and origin of agricultural and livestock export commodities. Through its mission NAEB is working with exporters of agricultural commodities to help them meet the standards required on international markets and provide them with all necessary trade and quality related documentation that authenticate their commodities. These activities must be done in the shortest possible timeline to avoid commodities to perish before reaching international markets and traders lose money in warehousing.

#### 2. Rationale

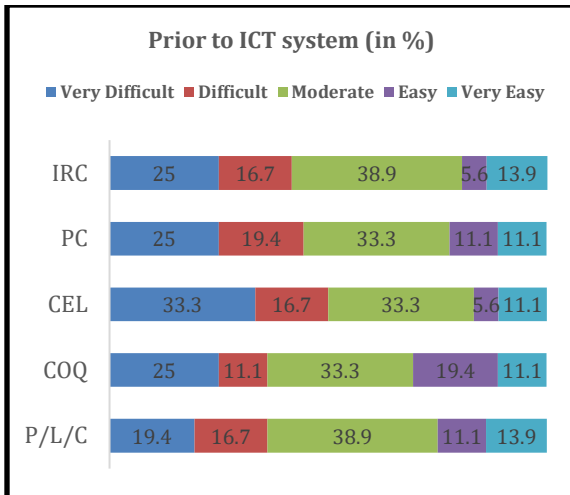
NAEB, in its effort of reducing the amount of time commodities spend in

their warehouse while they are being quality tested and all their paperwork for access to international markets, has through the funding of TMEA acquired an ICT system that would help considerably in reducing the amount of time traders spend dealing with international trade regulations.

#### 3. Description

This ICT system was built so as users of NAEB services can easily acquire all prerequisite documents in the shortest period possible. Prior to the automation of this system as figures from NAEB service beneficiaries illustrate it well, it was not easy for them to acquire NAEB services. For example, for those who needed a “coffee export license”, more than half of them testified that it was “Difficult” to get this document (16.7%) with 33.7% stated it was even “Very Difficult”. When we look at all prerequisite documents 16% of our respondents said that it was difficult to acquire them while 25% said that it was “Very Difficult”.

**Rating the ease of acquiring prerequisite documents for trading before the current built ICT system was operational**



Where:

**IRC:** Investment Registration Certificate

**PC:** Phytosanitary certificate

**CEL:** Coffee export license

**COQ:** Certificate of origin and quality

**P/L/C:** Permits, Licenses and Certificates

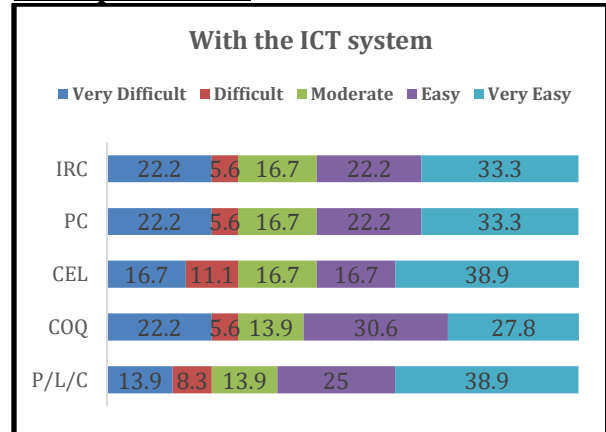
Added to this difficulty of getting these prerequisite documents, the of the COVID-19 pandemic has added another layer of hardship on all these processes as Rwanda recorded its first COVID-19 case in March 2020 and shortly later various measures were put into action to curb the spread of the virus. Among those measures were movement restrictions and reduction in workplace capacities which did not ease the work of the institutions like NAEB as resources needed to provide all the prerequisite documents on site were only allowed to work at 30%.

#### 4. Outcomes

The ICT system that was introduced to deal with prerequisite documents online has been successful in numerous ways. Agriculture and Livestock traders have found that the time they used to spent waiting for all required documents to be ready has

considerably reduced as it can be seen in the below chart.

#### Rating the ease of acquiring prerequisite documents for trading after the current built ICT system was operational

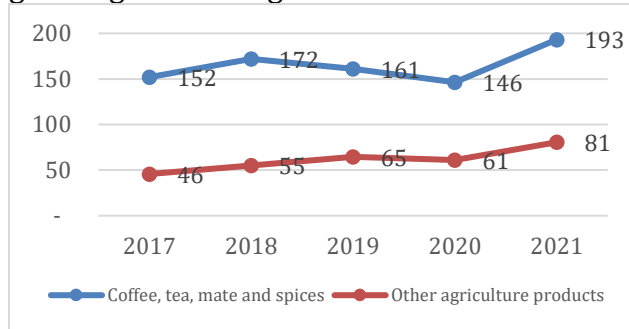


Compared to prior the introduction of the ICT system where the rate of traders who were finding it very difficult to acquire those documents has gone down by 6 percentage points while the rate of those who found it very easy has gone up by 22 percentage points. Even though these figures are satisfying however the volume of transactions in relation to services offered by NAEB has gone down due to COVID-19 where the respondents have made 208 transactions in 2018, 212 in 2019 and then the transactions have dropped to 165 in 2020 and 163 in 2021.

#### 5. Impact

There is evident reduction in the time spent waiting for documentation related to international trade of agriculture commodities and this is reflected in exports estimates of Rwanda where the trend of Rwanda's agricultural products has accused the highest level in 2021 due in part to the ease in services delivery at NAEB buy

using online system in requesting and granting the trading documents.



The above export data from the National Institute of Statistics of Rwanda (NISR) show that the trend of both coffee, tea mate and spices, combined, and other agricultural products is upward after being affected by COVID-19 in 2020.

