TradeMark East Africa (TMEA)

Formative Evaluation of the Single Window for the Rwanda Revenue Authority Project

Final Report

May 8, 2015

SAANA CONSULTING

Contents

List of acronyms

AEO	Agreed Economic Operator
CIF	Cost, Insurance and Freight
COC	Certificate of Conformity
EAC	East African Community
ECT	Electronic Cargo Tracking System
ESW	Electronic Single Window
FOB	Free on Board
GOR	Government of Rwanda
MAGERWA	Magasins Generaux du Rwanda
MINISANTE	Ministry of Health
MINAGRI	Ministry of Agriculture and Animal Resources
OSBP	One Stop Border Post
RDB	Rwanda Development Board
ReSW	Rwanda Electronic Single Window
RRA	Rwanda Revenue Authority
RSB	Rwanda Standards Board
SCT	Single Customs Territory
SW	Single Window
TAB	World Bank Trading Across Borders Indicators
TLI	Trade Logistics Indicators
TMEA	TradeMark East Africa
UNI/CEFACT	United Nations Center for Trade Facilitation and Electronic Business
UNCTAD	United Nations Conference on Trade and Development
WCO	World Customs Organisation
WTO	World Trade Organisation

EXECUTIVE SUMMARY

The Rwanda Electronic Single Window (ReSW), which was effectively launched in 2012, represents a major initiative to facilitate trade, enhance international competitiveness, and promote development and regional integration, with the ultimate aim of reducing poverty. TMEA provided $3.3 million for the first phase of this project from 2012 to 2014. This Evaluation traces its performance according to the OECD-DAC standard evaluation criteria of relevance, coherence, effectiveness, efficiency, impact, sustainability and coherence. The report concludes with recommendations for the way forward, and case studies are provided in Annex 1.

The table below summarises the overall assessment of the project according to the evaluation criteria. We provide each criteria with an overall assessment using a scale of 1 (poor) to 5 (excellent). We also provide a confidence level (low, medium or high) outlining the available level of evidence to support the team's assessment.

Table ES1: Summary Assessment Against Evaluation Criteria

Criteria	Assessment (1 to 5)	Confidence level	Comment
Relevance and coherence	5	High	• Project design is highly relevant as trade costs are a significant factor inhibiting trade in Rwanda. • The eSW approach is highly recommended by WCO and WTO. • The ReSW is coherent with the GOR national priorities and complements the broader government action to support Rwanda's integration into the EAC and to improve the country's competitiveness. • ReSW is in line with TMEA Theory of Change.
Efficiency	5	High	• Competitive bidding was used to select UNCTAD as solution provider, and choice of ASYCUDA reduced implementation costs significantly. • RRA and TMEA actively monitored the roll-out and implementation of the ReSW. • Use of inputs and supervision of the costs incurred was very good.
Effectiveness	4	Medium	• Outputs were delivered on time. • Corrective measures were introduced as soon as detected. • The ReSW project management structure has been useful in building capacity of the project to deliver, and ensured an adequate representation of both public and private sector. • Financial reporting and tracking needs to be improved
Impact	4	High	• Release times were halved as result of the introduction of the ReSW. • Traders and their representatives as well as the OGA linked to the ReSW are very pleased with the outcomes. • Evidence of reduced consumer prices for imports as a result of improved trade facilitation could not be found by the Evaluation.

Sustainability	4	High	• GOR is committed to sustaining the operation of the ReSW. • Investment will be taken on by the RRA's IT program, while operational expenses will be covered by the fees levied on traders. • Stakeholders are most likely to continue to support the operations of the ReSW. • Increasing access to internet and future availability of mobile access to the eSW.

1. INTRODUCTION

1. This Formative Evaluation assesses the relevance, effectiveness, efficiency, impact, sustainability and coherence of the TMEA Rwanda Electronic Single Window (ReSW) project. The Evaluation reviews both the design and implementation of the project and offers recommendations on the way forward.

2. Launched in 2012 with support from TMEA, the ReSW was designed to provide a system that allowed for the submission of a single trade declaration containing all of the information required by the various agencies that are responsible for controlling trade coming into and flowing out of Rwanda. Prior to the implementation of the ReSW, importers and exporters, through their clearing agents were required to submit the same documents to different agencies at different times. Under the ReSW, traders may submit standardised information to various agencies through a single, common electronic platform, and solicit from them a rapid response so as to allow for faster cargo release.

3. The aim of the ReSW ESW project is to facilitate international trade by expediting and simplifying information flows between trade and government institutions. More specifically, the project seeks to:[1]

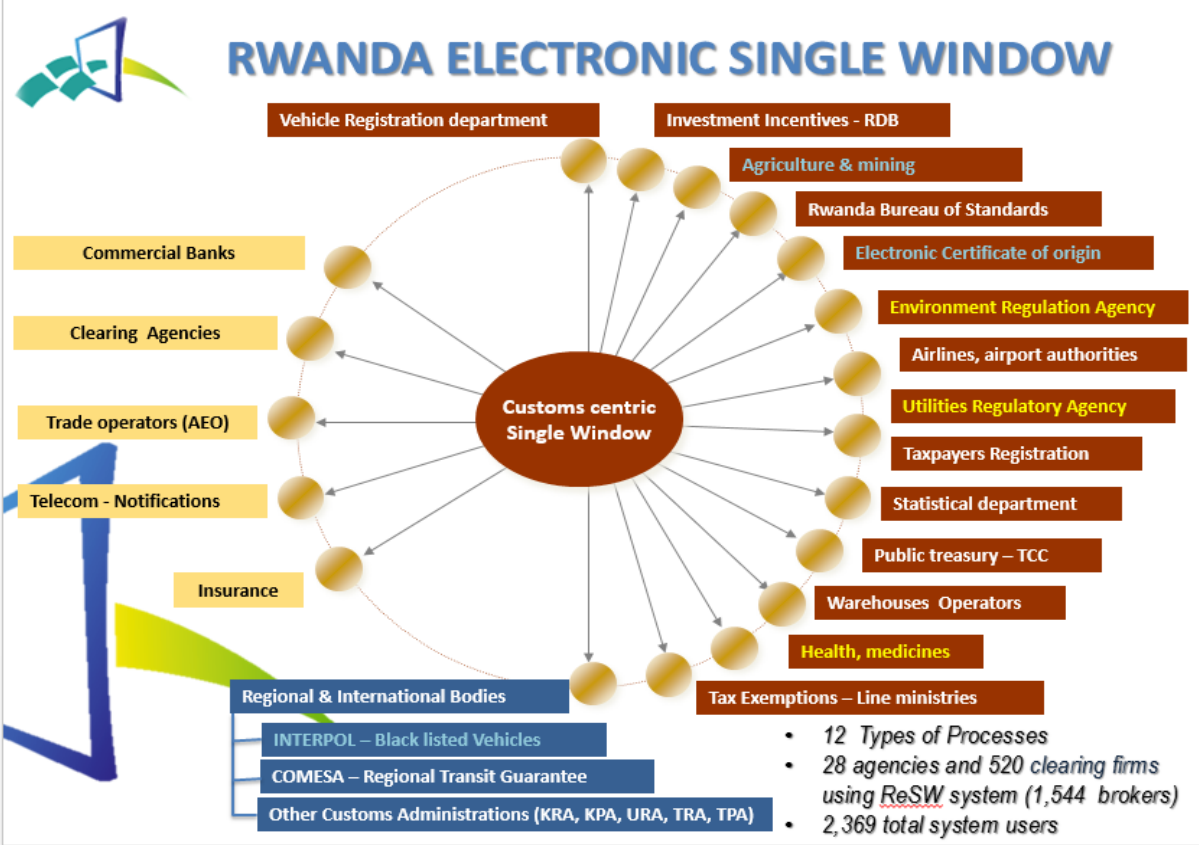
   - Simplify cross border trade to enhance the trade competitiveness through improvements to trade logistics systems and processes.
   - Enhance information exchange and sharing amongst customs, stakeholders and importers.
   - Provide real-time monitoring of consignment by importing community and government institutions.
   - Computerize international trade regulatory requirements.
   - Reduce cost of doing business.
   - Strengthen transparency and reduction of corruption.

4. The process of creating an eSW project started in 2005 under the sponsorship of the Rwanda Development Board (RDB), for which the World Bank prepared a feasibility study in 2007. SGS, a private service provider, was invited to implement the eSW in Rwanda, yet its proposal was not accepted due to its high costs to the traders. The Government of Rwanda (GOR) decided to implement the project on its own and identified the Rwanda Revenue Authority (RRA) as the preferred implementer and the United Nations Conference on Trade and Development (UNCTAD) was contracted in July 2011 as the solution provider, with ASYCUDA World as the central platform for the ReSW.

5. TradeMark East Africa (TMEA) allocated $3.3 million for its support for the implementation of the ReSW, mainly the acquisition of the hardware and financing for the various implementation activities. In February 2012, the ReSW was piloted, extensive training was provided to all stakeholders and on January 2013 the ReSW was fully rolled out. Initially, project stakeholders were limited to RRA, RDB, Rwanda Standards Board (RSB) and clearing agents, but this group has been gradually expanded to include other functions (e.g. e-exemptions, and electronic payments) and other stakeholders (e.g., Rwanda Standards Board). The full list of project stakeholders is presented below (Figure 1) and Annex 2 provides a details on the their connectivity to the ReSW.

[1] Implementing the Electronic Single Window and Customs Management System. Nov 2011

Figure 1: The Rwanda Electronic Single Window



6. This report is divided into six separate sections. Section 2 provides a broad overview of the methodology applied to this Evaluation. Section 3 examines the relevance and coherence of the project to Rwanda's national development priorities and TMEA's overall programmatic objectives. Section 4 assesses the efficiency and effectiveness of the project. Section 5 examines the evidence of the impact on clearance times and possible effects on the level of trade and consumer prices. Section 6 looks at sustainability considerations, and section 7 concludes with recommendations going forward.

7. The report also includes a number of important annexes. Annex 1 provides five case studies capturing lessons in order to inform Phase 2 of the project, as well as to contribute evidence towards the impact of ICT on enabling trade facilitation reforms and in generating learning that is transferable to other programmes (by TMEA donors and others). These case studies are:

   - CS1: Improving clearance time predictability: understanding the importance of standard deviation
   - CS2: Lessons for strengthening the regional impact of the ReSW initiative
   - CS3: Establishing a trade portal: complementing the ReSW
   - CS4: Electronic Single Window business models
   - CS5: How can trade facilitation programming help to tackle poverty?

   Annexes 2-4 provide information on sources consulted.

2. EVALUATION METHODOLOGY

8. The team's methodology focused on the five OECD-DAC criteria for evaluating development assistance – relevance and coherence, effectiveness, efficiency, impact and sustainability. These provide a clear and systematic framework for approaching complex evaluation exercises. The Inception Report submitted to TMEA in late January 2015 provides more detail on the methodological approach. We provide a brief summary below.

2.1 Data collection and analysis

9. Data for this Evaluation was collected through two primary channels: a systematic analysis of available project documentation and interviews with informed respondents and focus groups. The Evaluation team received a large number of documents from TMEA and RRA throughout the course of the review, and the under took a careful triangulation of information and evidence against the Evaluation questions. The RRA ReSW team leader has been extremely helpful in providing the relevant clearance time data and in assisting the Evaluation team to interpret the results. We wish to record our thanks for his excellent co-operation and assistance to the Evaluation team.

10. The field visit to Rwanda (5th to 14th February 2015) by the Evaluation team leader and Senior Expert strengthened the secondary evidence significantly. The Evaluation team held meetings with a number of key stakeholders as outlined in Annex IV. In addition to the meetings in Kigali, the Evaluation team undertook missions to assess how the project has impacted trade flows at the strategic border crossings of Cyanika (Rwanda-Uganda) and Rusumo (Rwanda-Tanzania), as well as at the Kigali International Airport.

11. The Evaluation team reviewed the evidence gathered from these different channels and distilled key findings in line with the Evaluation framework agreed during inception. The findings, lessons and recommendations reflect aggregation and triangulation of a wide range of evidence and stakeholder views. At the request of TMEA, the Evaluation team has focused attention on providing practical, constructive and targeted recommendations to help improve delivery in the next phase of the project.

2.2 Reporting and timing

12. The Evaluation has followed the timeline outlined above. In the final phase, the following timelines were followed:

- **4th March 2015:** Submission of first draft of Evaluation report
- **31st March 2015:** Submission of second draft Evaluation report[2]
- **28th April 2015:** Submission of final report
- **28th April 2015**: Presentation to TMEA CEO
- **30th April 2015:** Stakeholder validation workshop

[2] Delays due to further requests for information from TMEA/RRA on remaining budget

3. RELEVANCE AND COHERENCE

Relevance is the extent to which a development intervention conforms to the needs and priorities of the target groups, the policies of recipient countries and donors and TMEA's strategy.

- Is the intervention well in tune with the trade policies and administrative systems of the partner country government and EAC policies and systems?
- Are the interventions consistent with TMEA's policies and priorities? Is the intervention consistent and complementary with activities supported by other programmes in TMEA and/or by other donor organisations?

13. This section examines the relevance of the project's outputs, outcomes and goals to Rwanda's needs and priorities, as well as the coherence with TMEA overall strategy and other donor programming in the region. On the whole, the assessment shows that the project interventions are still relevant in the context of regional, national and RRA strategies. They also match with the objectives of TMEA and other development partners working in Rwanda and in the EAC region in trade facilitation. 98 per cent of beneficiaries (internal and external) interviewed in the 2014 Baseline Study rated the initiative and the approach of the Project as "very relevant".

14. Clearing agents and freight forwarders, the primary users of the ReSW and those most sensitive to clearance delays, found the initiative particularly relevant. The 2014 Baseline study estimated that the indirect time spent by clearing agents at the RRA fell from 4 days to 11 hours; at the RDB the time spent fell from 1 day to zero, while the study reported no savings at the RSB where the process reengineering had not yet started at the time of the baseline study interviews.

15. Other Government agencies such as the RDB, the RSB and the Magasins Generaux du Rwanda (MAGERWA) agree that the project is in line with the priorities and development strategies of their organizations. Staff at the RDB noted that the process of providing exemptions was now much more efficient and that their offices were cleared of representatives of clearing agents, adding to the integrity of their operations. They also noted that exemptions now were provided in minutes rather than hours. At the RRA savings involved fewer staff at the document submission stage, and a reallocation of the staff to more productive positions.

3.1 Project logical framework: outputs and outcomes

16. The Project Concept Paper spelled out project objectives, expected outputs and outcomes, and identified the expected role of the various OGAs following extensive discussions with them. However this was not presented in the usual logical framework format. The feasibility study of 2007 suggested the various steps that needed to be taken and provided good example from the Ghana eSW. This analysis and the preparatory work leading to the setting up of the ReSW clearly identified the causal links between the outputs and outcomes and guided the setting up of a detailed implementation plan. Table 1 collects the key elements of such a logical framework and identifies the outcomes at the end of the project. Data are obtained from the 2012 ReSW Project Concept paper, the Quarterly RRA reports, on site interviews with stakeholders and observations.

Table 1: ReSW development objectives outputs and outcomes

Project development objectives	Selected outputs	Outcome
Simplify cross border trade to enhance the trade competitiveness through improvements to trade logistics systems and processes	• ReSW platform created • AGERWA, RDB and RSN are connected to central ReSW; release notices entered into the RESW • RDB receives on line exemptions requests • RSB risk criteria is included in the ASYCUDA World platform • Provides on line permits for e-exemptions • Electronic payment system in place	• Tested in mid 2012 and rolled out end of 2012. Release times reduced. • Release of cargo at RRA not held up any more pending clearance from RDB and RSB. Contributed to overall reduction in release time. • RDB provides responses to exemption requests in a matter of minutes rather than in hours. • Permits better coordination for RRA/RSB inspection - this coordination needs to be improved; • RSB has increased number of cargo it inspects from 14 per cent in 2012 to 42 per cent in 2014 countering somewhat the objective of speedier clearance of cargo. • Speeds up clearance of tax exempt goods • Only fully effective for one bank
Enhance information exchange and sharing amongst customs, stakeholders and importers.	• Single entree declaration provides RRA and OGAs with the information necessary to provide clearance. • Traders are clear of the various import requirements.	• Completed for RDB. RSB and MAGERWA, e-exemptions for most Ministries. Not yet completed for MINAGRI and its agencies and for MINISANTE. • Commodities requiring RSB clearance are notified to traders. Similarly for e-exemptions.
Provide real-time monitoring of consignment by importing community and government institutions,	• Clearing agents set up to receive SMS and emails notices regarding stage of cargo clearance. • OGA receive clearance requests on line	• Done for clearing agents and those OGA that are integrated into the central ReSW
Computerize international trade regulatory requirements.	• RSB and RDB's regulatory requirements and issuance of release notices are computerized.	• Contributes to speedier release and reduced indirect costs for traders.
Reduce cost of doing business.	• ReSW permits single trade electronic declaration that satisfies the data requirement of most border control agencies.	• Reduced direst costs—time to release goods—as well indirect costs that resulted from previous cumbersome and time consuming processes required to declare goods to RRA and OGA.

Strengthen transparency and reduction of corruption	• Information flows between border control agencies and traders and their representatives is greatly improved.	• The systematic electronic communications between these agencies and clearing agents ensures transparency, speeds up the information flow and reduces face to face contacts between stakeholders and control agencies, reducing the opportunities of under the table agreements.

3.2 Addressing Rwanda's high trade costs

17. As a land-locked country, the cost of importing and exporting goods is naturally greater than in neighbouring countries. As highlighted in Table 2 below, in 2008 it took an average of 47 and 69 days respectively to export and import a container according to the World Bank's Doing Business indicators. The number of days has halved since, but the cost of trading still remains high and Rwanda's Trading Across Borders ranking still remains near the bottom of the world table.

Table 2: World Bank Trading Across Borders (TAB) Indicators for Rwanda, 2008-2015

Indicator	2008	2009	2010	2011	2012	2013	2014	2015
TAB Indicator	166	168	170	159	155	158	162	164
Docs to export (number)	9	9	9	8	8	8	7	7
Time to export (days)	47	42	38	35	29	29	26	26
Container costs for export ($)	2975	3275	3275	3275	3275	3245	3245	3245
Docs to import (number)	9	9	8	8	8	8	9	9
Time to import (days)	69	42	35	34	31	31	30	27
Container cost to import ($)	4970	5070	65070	4990	4990	4990	4990	4990

18. Similarly, the Logistics Performance Index, based on a worldwide survey of operators on the ground (global freight forwarders and express carriers), providing feedback on the logistics "friendliness" of the countries in which they operate and those with which they trade, shows a similar upward trend. In 2007, Rwanda ranked 143 out of 150 with an overall LPI score of 1.77, but in the latest rankings climbed to 80th of 160 countries surveyed and the overall score rose to 2.76.

Table 3: Logistics Performance Index for Rwanda, 2007-2014

Indicator	2007	2010	2012	2014
Overall LPI score	1.77	2.04	2.27	2.76
Customs Score	1.80	1.63	2.19	2.50
Infrastructure Score	1.53	1.63	1.88	2.32
International shipments Score	1.53	2.88	2.27	2.78
Logistics quality and competence Score	1.67	2.88	2.06	2.64
Tracking and tracing Score	1.60	1.99	2.39	2.94
Timeliness Score	3.07	2.05	3.34	3.34

19. High trade costs hinder competitiveness and reduce the growth and employment potential of both the internal and external sectors. The domestic sector suffers from higher input prices, driving up consumer costs and the external sector faces lower profits and less incentive to expand production and investment.

20. The eSW approach to facilitating trade has the advantage of not only streamlining and improving customs operations, but also the operations of the other border control agencies and entities responsible for delays in the release of goods. The eSW approach has not been implemented in many countries to date, but the initiative has received strong endorsement from the United Nations Centre for Trade Facilitation and Electronic Business (UNI/CEFACT) as an approach that could significantly reduce trade transaction costs.[3] The RDB took the initiative to pursue this approach and in the process was strongly supported by the private sector operators, who saw this initiative as a possible solution to the high costs they were encountering in their trade operations.

21. The WTO Trade Facilitation Agreement concluded in December 2013 includes a recommendation of introducing the eSW as a powerful instrument to enhance trade facilitation. The WCO has recently profiled the eSW in its deliberations and training material which is a further indication that the preparation of Rwanda to launch the SW as early as 2005 was a relevant and appropriate approach to tackle high trade transaction costs.

3.3 ReSW coherence with national priorities

22. The ReSW is coherent with the GOR national priorities and complements the broader government action to support Rwanda's integration into the EAC and to improve the country's competitiveness. According to Rwanda Vision 2020, the GOR's overall goal is to achieve the status of middle-income country by 2020 through private sector-led development 'spearheaded by competitiveness and entrepreneurship' and the promotion of regional economic cooperation. Among other things, the government envisages that these goals may be achieved by transforming Rwanda into a knowledge-based economy and exploiting innovations in science and technology.

23. One of the priorities of the current Economic Development and Poverty Reduction Strategy Paper 2 (2013-2018) is to transform the economy through, among other things, increased external connectivity of the country's economy and boosting exports. The GOR's priorities include minimizing barriers to trade and pursuing policies that promote competitive enterprises and exports. Moreover, evidence suggests that the GOR's actions are aligned with their priorities and plans. Several reforms and interventions – including trade facilitation reforms – have been put in place in the past years. These include: reduction in the number of documents required to trade; enhancement of joint border procedures with Uganda and other neighbours; and the introduction of administrative changes such as expanded operating hours; among others.[4]

24. Lastly, the eSW is squarely in line with the GOR's stated goal of making all government services available to citizens online by 2018 under the Rwanda Online initiative.

[3] Recommendation and Guidelines on establishing a Single Window, Recommendation No.33, UNI/CEFACT, Geneva 2005.

[4] World Bank, 2015.

3.4 Coherence with TMEA strategy and other donor programming

25. ReSW is in line with TMEA's Theory of Change and is contributing to effective trade systems, trade agencies and procedures towards enhancing trade environment and to the organisation's overall goal 'of increased prosperity through growth in trade for East Africa' and with the TMEA Rwanda Country Programme's main goal of 'greater regional integration and trade competitiveness in Rwanda'. The ReSW falls under TMEA's Strategic Objective (SO) 2 'Enhanced Trade Environment' that seeks to provide support to activities that simplify business processes for traders. ReSW primarily complements TMEA's projects that focus on 'hard' infrastructure development, such as the construction of the One Stop Border Post (OSBP) at Kagitumba/Mirama.

26. ReSW also complements other donor programmes and priorities in Rwanda and East Africa. DFID's plans (2011-2015) for the country are to support private sector-led growth, including boosting regional trade and addressing constraints to private sector. Similarly, the World Bank's strategies for the country (2014-2018) will, among other things, focus on addressing key bottlenecks for private sector development. USAID, besides having a regional programme dedicated to enhancing regional integration in East Africa, has recently started to focus on supporting Rwanda's regional integration within the EAC through supporting trade facilitation policies and infrastructure at border posts. Japan has financed the OSBP at Rusumo.

4. EFFICIENCY AND EFFECTIVENESS

Efficiency is the extent to which the costs of a development intervention can be justified by its results, taking alternatives into account.

- To what extent and how has the intervention been effective and achieved good Value for Money (VfM)?

Effectiveness refers to the extent to which a development intervention has achieved its objectives, taking their relative importance into account.

- To what extent were the objectives achieved / are likely to be achieved?
- To what extent can identified changes be attributed to the intervention? What would have occurred without the intervention?
- If gender-mainstreaming targets were set at project inception, did the program achieve the targets, if not what were the challenges?

4.1 Assessing the use of inputs and resources

27. This project was financed by the $3.8 million financial aid agreement between TMEA and RRA signed in August 2011. The total amount disbursed to the eSW project is $3.3 million ($500,000 was for other activities according to TMEA). The largest share of spending was for $1.9 million contract for UNCTAD to upgrade the Customs Management System to ASCUYDA World and develop the platform for the eSW and roll this out nationally. Approximately $933,000 was spent on various complimentary investments, including critical technological and network hardware ($472,000), software licenses ($139,000) and consultancy support ($59,000). A further $203,000 was spent on communications and public awareness raising, and $61,000 on training and related capacity building.

28. From the $3.3 million, there was approximately $506,000 remaining in unspent funds as of December 2014, due largely to procurement delays by the RRA. Of this amount, approximately $478,000 has been committed to further ICT hardware and licenses ($216,000), awareness raising ($164,000 up to FY 2015-16) and capacity building ($98,000 up to FY 2015-16). Approximately $29,000 remains unallocated, which RRA will likely utilise for further capacity building.

29. The RRA Reform and Modernisation Unit provided the above information to the team after considerable delay. Quarterly reports provided by RRA are per the reporting guidelines provided by TMEA, but mention only the beginning and ending balances of the project account. Going forward, RRA is encouraged to provide greater financial details in its Quarterly reports to permit improved tracking of expenditures and deliverables. TMEA should strengthen the oversight function to ensure better reporting on project expenditure and ensure delivery of value for money.

30. Despite the issues raised above, it is the assessment of the team that the choice and volume of resources targeted to the various activities was appropriate and helped to strengthen the development, rollout and integration of the OGAs and the private sector into the ReSW. Network and ICT hardware and software purchases were critical to ensure the full rollout and reliability of the ReSW system. Internal RRA and OGA capacity building elements were able to reach a significant number of key implementers (see section 4.4). Public awareness raising through media campaigns and promotional material was also critical to ensure buy-in from the private sector, though it would be useful to better understand how this budget line was spent and how this will be targeted to achieve further buy-in over going forward.

31. RRA contributed both material and financial support to the project in terms of office space, staff salaries, and logistical support for field project rollouts, training mobilization and capacity building/trainings. This arrangement has been embedded in work schedules of customs staff which has not only brought a high level of project ownership, but also assured staff commitment to results.

4.2 Assessment of the ASCUDYA-based solution

32. The selection of the business plan to improve trade facilitation in Rwanda has been subject to a rigorous evaluation and decision process despite some initial delays. The Evaluation team has analysed this process from the original concept stage in 2005 by the Ministry of Trade and the RDB, the 2007 Feasibility Study, the invitation extended to several possible solution providers (SGS and Crimson Logic) and the final due diligence process that resulted in the selection of UNCTAD as the ultimate selected solution provider.[5]

33. Selecting UNCTAD as the solution provider reduced implementation costs significantly compared with launching a new platform, as it simply required upgrading of the ASYCUDA++ platform to function as the central eSW platform. The upgrading to this new customs management system was overdue in any event so that not all transition costs can be counted as costs for the introduction of the ReSW.

34. The ASYCUDA-based solution did not incur any patent costs, and moreover this approach was significantly cheaper than going through a private service provider. According to TMEA, the eSW development and rollout by Crimson Logic would have cost $5.3 million, and would have been hosted and administered outside RRA. This approach was possible in large part due to the interventions of the TMEA ICT Director. As outlined below, the development of the ReSW appears to have been very cost effective by international standards.

35. Comparing the implementation cost of the ReSW system with the cost of implementing similar platforms is a difficult exercise as there is very limited publically available data on these costs. The Ghana Community electronic window (GCNet) is one of the few were data on the cost is available.[6] The GCNet was started in 2000 with a total equity of $8.8 million, of which with SGS contributes $5.3 million; SGS later put in another $2.7 million most likely in the form of a loan. Confidential data for Senegal's eSW put the cost at a similar amount, largely as payment for the French consulting firm for software development. In late 2014, the Government of Tanzania awarded a contract of €6 million ($7 million) for the development of the Tanzania eSW by a private contractor. Hence, the $3.3 million cost for the implementation of the ReSW appears to be more cost effective than these comparators, coming in at less than half of the price.

36. Comparing the ReSW to other aspects of these two comparators, it appears the ReSW fares well in terms of its cost efficiency. The public-private partnership (PPP) solution adopted in Ghana for instance was more expensive and has resulted in higher costs for the trading community. The Senegal solution for its eSW system also was more expensive to launch, as it required the building of a totally new IT platform. Case Study 4 in Annex 1 provides an examination of the two core business models for eSWs and provides lessons on the pros and cons of each.

[5] RRA, Electronic Single Window and Customs Management System Evaluation Report, April 2011.

[6] Luc De Wulf, Ghana, Luc De Wulf and Jose Sokol , eds., 2004, Customs Modernization Initiatives, World Bank, Washington DC, p. 22.

4.3 Project management structure

37. As outlined above, TMEA chose the financial aid agreement modality for the delivery of this support. According to TMEA, RRA had demonstrated strong internal capacity to handle other donors' funds in previous projects. A Q4 2012 fiduciary risk assessment carried out by KPMG verified expenditure so far reported and provided the green light for a further release of agreed funding. The TMEA-RRA MoU also provides basic mechanisms for risk management, including clauses for termination of the project if significant issues arise.

38. The ReSW project management structure (owner, manager, leads and teams) has been useful in building capacity of the project to deliver, and ensured an adequate representation of both public and private sectors. From the Evaluation team's interviews with selected members of the project steering group, the assessment is that there is good coordination among and between the members of the group, and overall positive working relationships between the project steering committee, project management team and TMEA country team.

39. Project monitoring is a continuous management function that aims at providing the project manager and key stakeholders with regular feedback and early indications of progress (or the lack thereof) in the achievement of intended results and recommending corrective measures. The main tools used to monitor progress and impact of project interventions are: (i) annual progress reports; (ii) quarterly progress reports to TMEA with clearly spelled out road maps which provided a detailed review of the deliverables planned for the quarter, their status of their implementation and challenges going forward and; (iii) weekly progress reports to the Commissioner of Customs. The TMEA-RRA Project Implementation progress reports obtained by the Evaluation team mention only in very broad term the financial disbursements during the period under consideration and the remaining budget resources available.[7]

40. Procurement processes were diligently and allocated through the transparent and rigorous budget procedures of the Rwandan Ministry of Finance. The team interviewed in depth the ReSW Project manager on this issue. The only reservation he shared was the slow procurement for the SWIFT platform for MINAGRI that had incurred delays. The non-tolerance of corruption policy within government greatly contributed to this outcome.

41. Progress reports monitored results achieved against four outcome indicators and a total of 38 specific implementation milestones mentioned in the July 2012 Project Concept. Most of these were related to 2012 and were prerequisites for the implementation of the ReSW, the full roll out was undertaken January 1, 2013. All milestones have been realized, except those related to the MINSANTE and MINAGRI. Baseline data for the system level indicators were derived from the 2010 Time Release Study and reflected in the 2012 RRA ReSW Concept Paper. Quantitative and end-of-project targets for phase one were well-specified for most of the outcome indicators which are being used to measure improvements in customs, RDB and RSB efficiency. This demonstrated a well-organized model of project planning.

[7] For instance, the Progress Report covering October-December 2013.

42. Project effectiveness has been supported by RRA's success in its efforts to deliver the project expected outputs in a number of ways, including the following:

- Providing the necessary accountability for project deliverables in line with the scope, organizational and development partner expectation.
- Mobilizing staff, clearing agents and other Government agencies to attend project sensitizations and to build capacity for project sustainability.
- Championing the project to external and internal stakeholders including consultations on the system's needs, sensitization and priorities both at national and regional level.
- Soliciting for required resources (funds, human resources, equipment, etc.) to ensure smooth implementation of project components.
- Championing project implementation in line with quality, change, risk, project, procurement and time management standards.
- Identifying project milestones, their implementation timelines, monitoring progress and systematically communicating them to the project owner and TMEA; corrective actions were identified and followed up.
- Providing strategic guidance and ensuring alignment of project deliverables to RRA organization objectives and compliance objectives.
- Monitoring closely the progress and contributions made by the UNCTAD support that provided the overall technical and functional coordination of the ASYCUDA World implementation, the functional and technical development of new modules such as motor vehicle registration, and e-payment, and the training of local IT staff that will be responsible for the IT aspects of the project.

4.4 Building capacity to deliver results

43. The project gave ample consideration to identifying and addressing customs related capacity building needs through training of customs staff, clearing and forwarding agents and other government agencies (OGAs) in a varied range of outputs. Substantial sensitization was done for internal and external stakeholders purposefully to provide initial insights into the various project components to enable an efficient launch of the project.

44. A review of the project progress reports indicates that over 250 customs officers and 300 clearing agents were provided training on the ReSW. As well, at least 16 officials from OGAs were also trained.

45. From the RRA, both customs officials and IT specialists received significant training. 12 officers were trained on how to provide support to system users and system configuration. 3 IT officers were sent to Aqba for two weeks of training on ASYCUDA World and 4 business analysts were sent to the same centre to receive training on how to manage taxation rules and risks criteria. Moreover, 20 RRA officers are being supported by the project to obtain Master's Degrees from the Eastern and Southern African Management Institute (ESAMI) on customs administration, whose future deployment to the ReSW initiative would be greatly beneficial.

46. The Evaluation team is not aware of a post training knowledge assessment that could have identified the usefulness of refresher trainings to equip the stakeholders with more professional skills. Such training could help to achieve and sustain the good results obtained so far by ensuring skills acquisition, knowledge transfer and retention among customs staff. This would further strengthen the position of RRA in revenue collection and compliance management.

4.5 Gender considerations

47. A significant amount of recent analytical work and programming has focused on facilitating trade by women traders, who often tend to make up the majority of the actors operating in the informal cross-border economy in the region. Schemes such as the EAC and COMESA Simplified Trade Regimes (STRs) are designed specifically to target informal traders, though in many cases these traders are unable to access the schemes due to limited awareness, processing fees and other constraints.[8]

48. Unlike other national or regional initiatives, the eSW did not incorporate an explicit gender component, nor were specific gender-based indicators set at the beginning of the project. A significant share of the clearing agents operating in Rwanda is female, and many are utilising the eSW.

49. Going forward, the eSW could look to track the share of female users, especially with the roll-out of mobile access to the system (see section 6). As well, sensitisation specifically targeted at female traders could be explored to increase the representation among the user base.

8

5. IMPACT

Impact refers to the totality of the effects of a development intervention, positive and negative, intended and unintended. The impacts are the tangible long-term outcomes to which the project contributed.

- What is the current (Phase 1) and likely impact (intended and unintended, positive and negative) of the intervention? How has the intervention affected the well-being of different groups of stakeholders?
- What is the current and likely impact of the intervention on reduced customs processing, clearance and release times, reduced cost to import and export, increase in volume and value of exports and imports, and changes in the consumer price levels?

5.1 Results of the ReSW over the short-term

50. Benefits from the introduction of the ReSW derive mainly from the reduction in release time, the adjustment in direct costs associated with customs clearance and from the improvement in document processing, the latter being reduction in indirect costs. A major part of the major time and indirect cost savings was realized due to the integration of the OGAs into the ReSW. Skipping the time consuming procedures that involved getting the documents to these agencies, getting their paper responses, and bringing these responses to the RRA with the customs declaration.

51. As outlined in the table below from the 2014 Baseline Study, the implementation of the ReSW significantly reduced the direct and indirect time required by clearing agents to obtain clearance of their cargo. Prior to the launch of the ReSW, the time required to clear goods through customs was over 11 days compared to just over one day in 2014. Similarly, obtaining an exemption from the RDB once required 4 days, but now can be done in half an hour. Similarly, reductions in the cost of clearance and obtaining exemptions fell from 30,000 RWF and 4,000 RWF respectively to close to zero in 2014. Clearly these data refer to perceptions of clearing agents interviewed, as per the methodology of the 2014 Baseline study and are not totally internally consistent nor consistent with more systematically collected data reported elsewhere in this report. But as spontaneous reactions to the questions pertaining to indirect cost they are still significant.

Table 4: ReSW and time saved by clearing agents

After introduction of ReSW (in hours)									
Service Provider	RRA			RDB			RBS		
Service provided	Clearing			Exemption			Inspection		
Year	2012	2013	2014	2012	2013	2014	2012	2013	2014
Average Direct time	13	16	10	1.6	1	0.5	0.39	0.25	0.55
Average Indirect time	11	56	17	0	0	0	0.55	0.33	0.39
Indirect Cost (RWF)	842	411	29	0	0	0	70	356	80

Before introduction of ReSW (in days)			
Service Provider	RRA	RDB	RBS
Service provided	Clearing	Exemption	Inspection
Average Direct time	7 days	3 days	No changes reported by staff interviewed
Average Indirect time	4 days	1 day	
Indirect Cost (RWF)	30 000 per consignment	4 000 per exemption	

52. The objectives of the ReSW in term of reducing the release time taken to import and export were spelled out in the July 30, 2012 RRA Project document. Using available data at that time, the project aimed at reducing the time it would take to process imports (from arrival at the gate to exit) from 2 days 10 hours and 5 minutes to 1 day nine hours and 57 minutes. This objective was basically achieved as can be seen in the figures below.

Figure 1: Export release times, 2010-2014

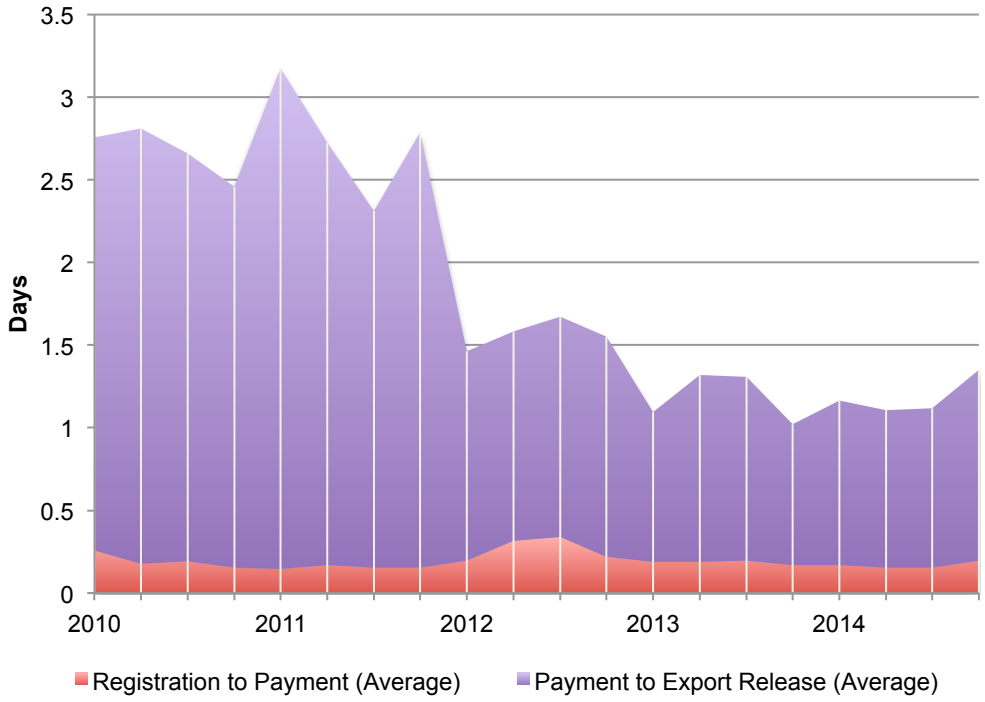
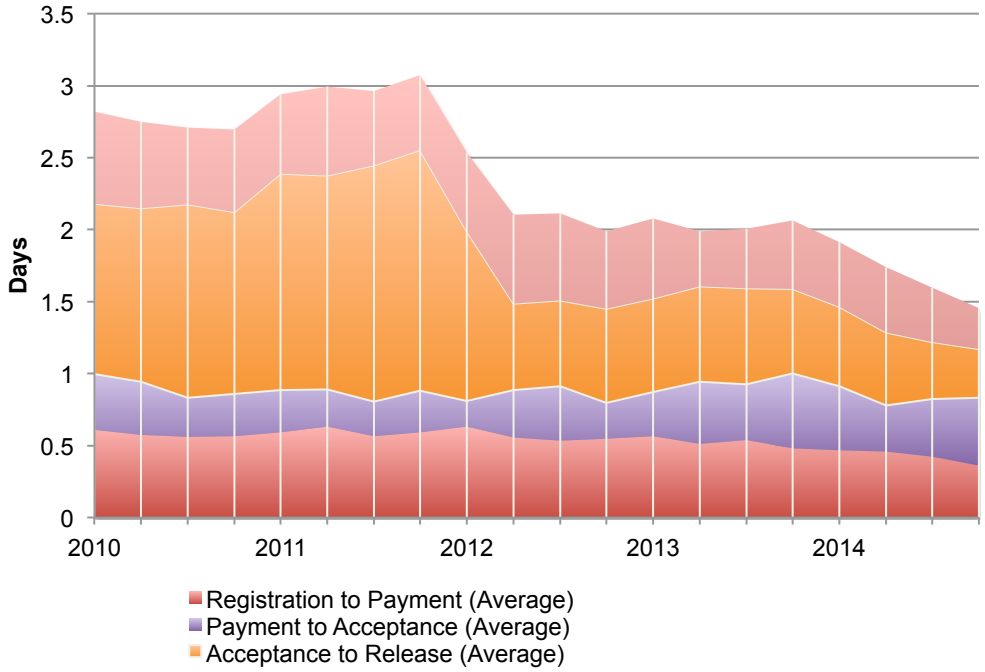


Figure 2: Import release times, 2010-2014



53. In the last quarter of 2014 this release time was reduced to 1 day 10 hours and 55 minutes - a reduction of 46 per cent from the baseline. Figures 1 and 2 provide the various stages of the release process for exports and imports respectively and show where in the clearance process this reduction was achieved. The time elapsed between registration and payment fell by 26 per cent from the baseline, largely because of the electronic payment provision provided by the project. The time elapsed between the payment and acceptance rose by 23 per cent from the baseline, a development that still needs to be explained. The time between acceptance and release fell by 64 per cent from the baseline, in part because of the time saved by the online release authorisations provided by the RDB[9], the RSB and those Ministries that provide e-exemptions, and because clearing agents are now promptly notified of the cargo. Export release time was also reduced by 64 per cent from the baseline, or from about 2 days 19 hours to 1 day 10 hours, largely because of the reduction in time elapsed between acceptance and release.

54. Standard deviations of the release times are still very high, reflecting the large spread in the release times of individual cargo. This undermines the confidence that traders have in a quick release of their cargo, and requires them to build up larger inventories than they would otherwise do (see Case Study 1). RRA still subjects one quarter of all imports to physical inspection-which takes up to three times as long as goods cleared through the green or blue channel, thus delaying clearance for these goods considerable (Table CS1.1 in Annex 1). The analysis of the risk profiling data provided by RRA indicates that the RSB increased the share of total imports it selected for inspection, from 14 per cent in 2012 to 42 per cent in 2014 (Table CS1.2 in Annex); thus also delaying clearance for a larger share of total imports over this period. RSB explained this increase by the increase in staff enabling them to inspect imports more thoroughly and at more border posts than a few years ago, so as to provide greater consumer protection.[10] Such an evolution in the inspection rate is likely to hamper the reduction in average release time and the standard deviation recorded over this period.

55. Standard deviations of the release times are still very high, reflecting the large spread in the release times of individual cargo. This undermines the confidence that traders have in a quick release of their cargo, and requires them to build up larger inventories than they would otherwise do (see Case Study 1). One element that emerged from the analysis of the risk profiling data provided by RRA was that the RSB increased the share of total imports it selected for inspection, from 14 per cent in 2012 to 42 per cent in 2014. Such an evolution in the inspection rate certainly hampered the reduction ion average release time recorded over this period, as well as the standard deviation of clearance times.

56. The Baseline Survey of 2014 interviewed stakeholders and monitored their opinion with respect to close to 200 transactions and solicited their view on how satisfied they were with the services provided through the ReSW and from each of the OGAs connected to the eSW. The Survey report noted: “Globally, the clearing agencies are satisfied with the service they receive from the RRA and the OGAs. The agencies responses showed respectively 89 per cent were satisfied with service providers and services provided (17 per cent at excellent level, 37 per cent very good and 35 per cent as good).”

57. Table 5 identifies the level of satisfaction of clearing agents by OGA. Findings must be interpreted cautiously as they depend on the sample used but seem to indicate a positive overall appreciation by clearing agents of the various government agencies involved in the release of import and export cargo. The appreciation of clearing agents with respect to RRA is probably an overall appreciation of their contacts with the RRA and not solely

[9] For example RDB’s release time fell from 683 minutes in February 2012 to 262 minutes in September 2013.

[10] RSB, in a late communication, noted:” Out of the more than 5000 total products imported, only 502 are in Red category requiring more time for inspection. This is just only 10%.” Also “We have also put a facilitation mechanism where any trader who imports a product with demonstrated conformity does not spend any time with RSB on the border.” In light of the importance of making further progress with trade facilitation it would be useful to investigate the differences in the data provided by RRA and those reflected in the above quote from RSB.

related to the operation of the ReSW, but on the whole is very positive. The positive appreciation of RSB and RDB services provided are most likely directly related to the introduction of the ReSW that saves clearing agents time and money (e.g. reduced need for couriers). Somewhat surprisingly, the satisfaction with the services provided by the Ministry of Agriculture (MINAGRI) and its affiliated agencies (NAEB, RAB and RALIS) is rather positive, despite these agencies not being connected to the ReSW.

58. These findings are broadly consistent with the information obtained in the Evaluation team's interviews with the clearing agents contacted. Specifically, a coffee exporter confirmed that even though NAEB is not yet connected to the ReSW, its services and the time involved in granting export certificated was very reasonable.

Table 5: Satisfaction of clearing agents per service provided

	Excellent	Very Good	Good	Acceptable	Poor	Total
RRA	34	329	439	63	8	873
MINAGRI	37	20	34			91
NAEB	13	56	13	25		107
RAB	13	4	9	26		52
RALIS	2	24		2	20	50
RSB	219	216	110	1		546
RDB	2	24		2	20	48
MINISANTE	1	26	62	63	20	172
TOTAL	321	699	667	132	68	1887

Source: Baseline Survey for TMEA Funded SWIFT Project in Rwanda, (2014), p. 64

59. **Clearing agent fees.** The Evaluation team obtained contradictory information on whether these fees have been altered as a result of the introduction of the ReSW. On the one hand, the chairman of the Freight Forwarders Association, and another member of the Association noted that these fees have been reduced since the introduction of the ReSW. Yet, several other members of the Association were adamant that these fees have remained basically constant, but at times negotiated, with large clients paying reduced fees. All of them noted however that the services they provide have been considerably improved, with clients getting better service for the same price. In any event, the productivity of clearing agents has substantially improved, but it is not evident that this benefit has been shared in financial terms with the importer or with the consumer (see section 5.2).

60. Traders and clearing agents now save significant amounts of time thanks to the streamlining of document submission to the border control agencies, collecting these data and obtaining electronic messages (SMS or emails) pertaining to the stage of clearance of their cargo. This has permitted them to handle more cases and do so faster i.e. more efficient service to traders. The indications provided regarding the reduction of indirect cost addresses this issue. In the 2014 presentation prepared by RRA/TMEA for the WTO presentation, it was mentioned that a clearing agents was now able to process up to 100 declarations per day versus only ten prior to the implementation of the ReSW. This means that traders have their declarations submitted to RRA and the OGA much faster than before. This 10 to 100 declarations potential increase is only a potential of the increase in the total number of declarations by efficient clearing agents, as the total volume of such declarations depends on the total volume of imports and exports. Import and export value rose by only 24 and 25 per cent respectively between 2012 and 2014. Hence many clearing agents work at a much lower level of activity, some went bankrupt and other

merged; a restructuring of the sector that led to greater competition and ensuing greater efficiency; all in the ultimate to the benefit of the trader.

61. **Fees paid to OGA.** The fees paid to the RDB (previously $45 per consignment) as well as those paid to the other Ministries that provide exemptions on line have been eliminated since the launch of the ReSW. Fees paid to the RSB have remained at 0.2 per cent of cost, insurance and freight (CIF) value. However this fee is cancelled for specific imports that must provide a certificate of conformity (COC) to be issued by SGS before the cargo is shipped. The SGS fee for this service is set at 0.5 per cent of Free on Board (FOB) subject to a minimum of $235, payable to the SGS inspecting office. Additional sampling and testing charges are added to this fee and are determined on a case-by-case basis. For the goods that arrive with this COC, the RSB ensures immediate release authorisation, without further sampling, quality verification and inspections in Rwanda. This latter process could at times take weeks, during which the cargo cannot be released for domestic use. For import of cement this process often took 20 days, and for water imports 3 days. Some importers complained to the Evaluation team about this new requirement, but overall this certainly provides material time savings to the importer.

62. **Improved inter-agency cooperation.** The use of ASYCUDA World as a platform for eSW enabled the different government agencies to exchange data and information using the new risk profiles to reduce the need for multiple verifications of the same consignment. In interviews carried out by the Evaluation team, both the RSB and RDB confirmed that the eSW had greatly enhanced their relationship with the RRA, allowing for more streamlined work and sharing of information.

63. **Transit fees and advantages derived from operating under the status of Agreed Economic Operator (AEO) scheme have provided added savings.** For some commodities the modalities of the Single Customs Territory (SCT) has eliminated bond commissions, depending on the port of origin. Payment of taxes can be delayed till arrival at the Rwanda border for AEOs. These cost savings could have been obtained in the absence of the ReSW, but the impetus behind this latter project has strengthened the resolve to further facilitate trade.

Indirect benefits

64. Transporters reported benefiting from the introduction of the SW as their turnaround time has been shortened allowing them more intense use of their vehicles. Given the daily cost of a truck is estimated to be $200 to $250 per day in Rwanda, this likely translates to savings to the overall economy in the millions annually. In 2014, 27,060 truck entered Rwanda with imports, and using an average savings per day of $225[11], the total savings to transporters can be approximated at $6 million in 2014 alone. Cargo handlers at the Inland Cargo Depot in Kigali also reported that they had increased the volume of cargo they handle in a shorter period of time, though could not provide specific numbers.

65. RRA staff that were responsible for collecting and inspecting documents and dealing with the large amount of clearing agents that were pressing for attention in the RRA offices have been reassigned to more productive tasks, thereby improving the overall revenue performance of the RRA.

66. Imported cars can now be registered at the Gikondo ICD by specialized agents, a procedure that is more convenient for car owners who previously had to submit documentation to the vehicle registry office in downtown Kigali. Trade statistics are now transferred daily to the National Institute of Statistics, permitting a nearly real time collection of these statistics.

[11] Based on World Bank calculations on the average cost of a truck per day in the region

5.2 Evidence of impact on trade outcomes and consumer prices

67. The Evaluation team investigated the question as to whether the cost reductions that were brought about by the implementation of the ReSW have been translated into lower prices for the consumer. This investigation required that the evolution of domestic prices be compared with the variance in international prices of the imported commodities. Figures 3 to 5 show this comparison for rice, wheat and vegetable oil.

68. There is no clear relationship between the two price series despite the reduction in some trade costs that result from the operation of the ReSW. This is not surprising as world market prices fluctuate heavily from one year to the next, while traders have clearly not allowed these prices to be reflected in domestic prices. It is also important to note that the cost savings that result from the ReSW are in the magnitude of a few hundred dollars per container, a small reduction in relation to the overall cost of a container of goods that can runs into the tens of thousands of dollars.

69. This finding echoes what TMEA found in its presentation of the AEO program where it states, "importers do not translate time and cost savings accrued from AEO programme into consumers' welfare benefits". The key to the transmission of lower international prices and lower trade costs is to foster the competitive pressures that will prompt the wholesale and retail sectors to transit these benefits to the consumers.

Figure 3: Imported rice CPI vs. international prices

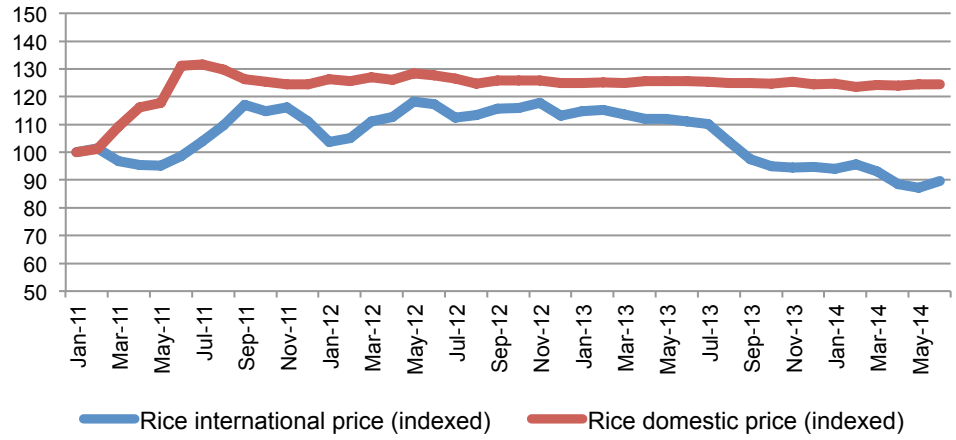


Figure 4: Wheat CPI vs. international prices

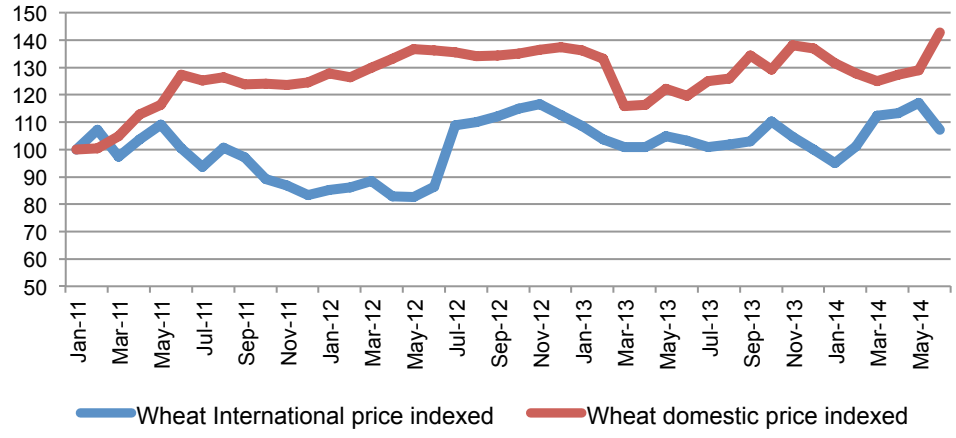
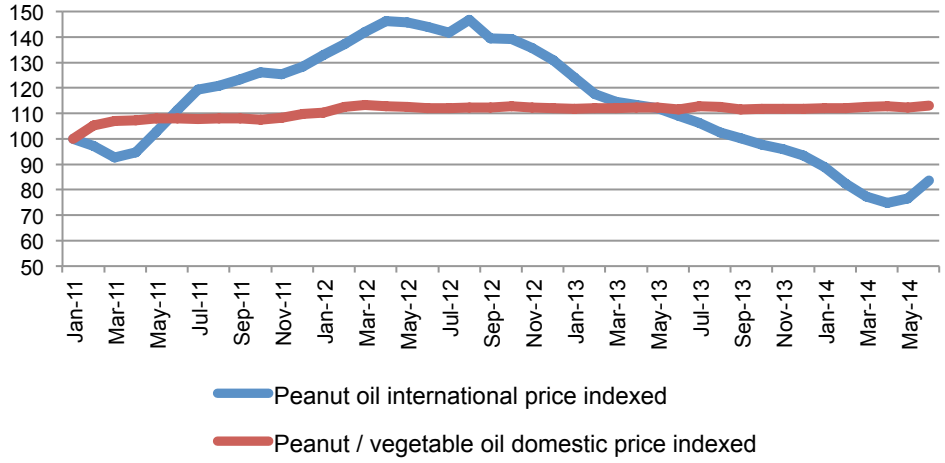


Figure 5: Vegetable / peanut oil CPI vs. international prices



5.3 Impact attribution issues

70. While the GOR adopted the ReSW in 2012 to promote trade facilitation, it is also in the process of introducing several other trade facilitation initiatives that contains promises to further reduction in release time and of the lowering of transaction costs of traders. Some of these initiatives already yield some of these expected benefits, but most of the benefits realized so far can be attributed to the introduction of the ReSW. These other initiatives are briefly identified below.

71. **Single Customs Territory (SCT**). The EAC Single Customs Territory is premised on three pillars namely: Free Circulation of Goods; Revenue management Systems; Port management Systems and Regional Legal and Institutional Framework. The scope of free circulation of goods with regards to the EAC covers treatment of imported goods into the EAC, Intra-EAC transfer of goods, Export of goods from Partner States to markets outside the EAC, Port and Border operation and trade facilitation. Under this arrangement, information (on Manifest) regarding imported or exported goods is sent to the relevant Revenue Authorities at the first point of entry prior to the arrival of the ship. This manifest information is sent electronically and is thus received, validated, approved and sent to Port Authorities and relevant customs authorities.

72. The SCT has greatly contributed to facilitation of trade along the Northern and Southern Corridors. Goods are handled at the first point of entry e.g. Mombasa and Dar El Salaam Ports by the relevant customs officials of each Partner State. The officials assess and note payment of taxes in the destination country prior to release of the goods for onward transit to destination The transit countries are under obligation to permit passage of the goods without interference. This has enabled the imported or exported goods to be cleared faster and moved quickly to the receiving country. Since the ReSW is web based, the officials at first point of entry into the EAC can quickly access all the necessary information and clear goods in a shorter time. Kenya, Uganda and Rwanda are fully implementing the SCT along the Northern Corridor. The stakeholders on this corridor are therefore reaping big benefits in the clearance of their goods from Mombasa. According to one clearing agent this would recently have greatly reduce the cost per container originating in that port (he even mentioned a $1000 reduction; this could not be confirmed by other agents). Tanzania on the other hand came in a little later and is piloting the SCT along the Southern Corridor with only three products.

73. **The Regional Bond Guarantee Scheme**. The SCT has also embraced the Regional Bond Guarantee Scheme (Commonly referred to as the COMESA RCTG) which eliminates the multiple execution of bonds at each border point. Under this system, a bond executed in

any Partner State is accepted by all the Partner States. The bond is electrically cancelled/ validated once the goods are finally cleared at the destination country. Thus the adoption of the RCTG within the SCT has also greatly contributed to a reduction in the cost of transporting goods from the coast to Rwanda. The ReSW has been modified, amidst challenges to accommodate the RCTG. This development has been implemented in the training server, and has been tested using one user interaction which has shown increase in performance. Some other problems still emerged, and COMESA expert team was called in to provide advice on these issues. Further testing procedures were to be made to guarantee the performance improvement, and to guarantee the accurate information transmitted from ReSW to COMEAS RCTG Bond Management System. Despite this however, a number of clearing agents stated that the introduction of the RCTG was very beneficial to them as it has resulted into a reduction in the time taken at each border point and reduced the cost of doing business. None of the clearing agents had empirical evidence to justify these claims.

74. **Authorized Economic Operators scheme**. The ReSW was also modified to embrace the AEO in mid-2014. An AEO status is a standard issued by customs administrations that a business has met certain standards in relation to their security, management systems, compliance with customs rules and on-going solvency. The EAC countries have agreed to recognize at least three companies from each country to operate under the AEO facility. These companies are given VIP treatment amongst which is the privilege that their cargo is automatically channelled to the green channel, thereby speeding up customs clearance. In addition AEO status allows traders to pay taxes only when entering the destination country, not at the exit of the port, saving on valuable liquidity.

75. **Electronic Cargo Tracking System (ECT).** Cargo tracking systems permit authorities to monitor the journey of the transit truck better secure the movement of goods along the transit corridor, thus reducing the need for “en route” controls. It means that short landing of goods along the transit route is minimized or eliminated, thereby saving countries from either loosing revenue or having unwanted goods in the transit country. Currently each country has implemented its own ECT facility making it cumbersome for operators to adopt different systems along the transit route. Efforts to establish a regional ECT project are still a long way to be achieved. Thus the individual ECT projects along the transit route still pose a challenge and should be further reviewed with a view to adopting a single system or systems that can read into each other.

76. **One Stop Border Posts (OSBPs).** A programme of OSBPs has been initiated by TMEA and national governments. It is already operational at the Rwanda/Burundi border and should soon be operational at the Rwanda/Tanzania Border at Rusumo, working towards a more fluid border crossing. Other border stations will soon operate as OSBPs.

77. **Certificate of Conformity required by RSB**. Since mid-2014 the RSB requires importers of some commodities to acquire a COC at the point of departure of the goods for Rwanda. This process speeds up the clearance of such cargo in Rwanda as of these goods are released without undergoing the time consuming process of further sampling and testing.

5.4 Assessing the possible impact mechanisms over the longer-term

78. One way to estimate the benefits derived from the introduction of the ReSW is to estimate its impact on overall trade growth, on the operational decisions firms make with respect to expanding and diversifying their exports and on the cost savings that result from reducing release time. The discussion that follows traces these various effects and provides a rough estimate of the benefits that can be expected to derive from the successful implementation of the ReSW. Even if precise estimates are not available, it is certain that these improvements have improved the business climate of Rwanda and that over time this should be reflected in greater inflow of foreign direct investment, which will stimulate trade, improve resource allocation and spur economic growth.

79. **Export expansion**. One study, based on the analysis of trade facilitation indices of 126 countries and the variation between clearance times to export trends, suggests that two-thirds of the differences in trade volumes can be traced to the delays in document preparation and customs clearance. It notes "A delay of one day reduces trade by at least 1 per cent—the equivalent of distancing a country from its partners by 70 kilometres."[12] For perishable goods this delay was estimated to reduce exports by 6 per cent. The ReSW did reduced release time for exports by about 1 day and 10 hours (see section 5.1). With the Rwandan exports at $620 million in 2013 and applying the 1 per cent potential export growth per day reduction in release time this would imply a future export growth potential of $8.7 million. Given the potential in the future to increase the share of perishable goods in the export basket, this estimate can be considered a conservative one.[13]

80. **Export diversification.** In 2013 Rwanda exported 34 different products, half of which were mineral products.[14] In the context of greater trade facilitation provided by the ReSW this rather narrow range of products could be greatly expanded, creating new employment opportunities that would create additional income and contribute to poverty alleviation.

81. **Reduction in release time for imports.** Hummels (2001) studied the impact of time on the volume of trade and found that when the time elapsed between country of origin and destination was reduced by 1 day this was reflected in a cost savings of 0.8 per cent for industrial commodities, less for bulk commodities, but more for perishables products.[15] This approach has been widely used in the World Bank for the cost benefit analysis for the Evaluation of customs and trade facilitation projects.[16] Under the assumption that about 50 per cent of Rwanda's imports are industrial products, 20 per cent perishables and the remainder bulk products, a quick calculation shows that the savings from a 1 day reduction in release time is 0.4 per cent of imports[17]. This estimate reflects savings to the importer resulting from lower indirect costs, reduction in inventory[18] and greater certainty of delivery time. With imports at $1.7 billion million in 2013, the savings from reducing the release time since 2012 by 1 day would translate in cost savings of $6.8 million in 2013 alone. As with the export expansion noted above, this saving would recur annually as long as the release time is maintained at the 2014 level, because the calculations are based on a comparison of the costs in any given year with what these costs would have been if the release time has stayed at the pre-ReSW level.

[12] Djankov S., C. Freund and C.S. Pham. 2013. Doing Business: Trading Across Borders Methodology. World Bank.

[13] An alternative way of estimating the benefit of regulatory simplification would be to apply the finding of Sadikov (2007) whose' research suggests that the reduction of one signature for trade operations would lead to an increase of total trade by 4.2 per cent , the equivalent of tariff reductions of 5 per cent. Sadikov, A.M. (2007) "Border and Behind the Border Trade Barriers and Country Exports", Working Paper 07/292, IMF.

[14] World Bank

[15] Hummels D. (2001) "Trade Barriers: GTAP Working Paper", 1152. Perdue University.

[16] Tuan Minh, Duc Minh Pham and Luc De Wulf, (2007) "Estimating Economic Benefits for Revenue Administration Reform Projects", PREM Note No 112. World Bank.

[17] Rwanda imports were composed of 3 per cent raw materials, 25 per cent of intermediate goods, 46 per cent consumer goods and 26 per cent capital goods.

[18] Assuming that importers can reduce their inventory by say $20,000 and bank interest rates at 20 per cent, this would result in a saving of approximately $1000.

6. SUSTAINABILITY

Sustainability is the continuation or longevity of benefits from a development intervention after the cessation of development assistance.

- What benefits (both social and financial) of the programme are likely to be sustainable and would continue with or without TMEA (staffing and funding)?
- What are the lessons learnt that are relevant beyond TMEA?

6.1 Keeping stakeholders on board

82. Clearing agents and importers are clearly very satisfied with the results of the ReSW as clearance operations can be effected faster than before and costs for submitting the clearance documents as well as obtaining the necessary approvals is greatly reduced. The stakeholder' support for the continuity of the ReSW operations augers well for the effective and efficient continuity of the ReSW operations.

83. Representatives of RDB and RSB whom the Evaluation team contacted see the advantages the ReSW has bought to their operations and support its continued operation. In interviews with the Evaluation team, they noted that the ReSW provided a unique opportunity for their agencies to streamline their own operation, to provide faster service to the trader community and achieve greater transparency in their operations. Other stakeholders have identified the ReSW as a good example of a practical use of modern technology, which has been identified by the GOR as one way to promote growth and reduce poverty, even if it required a change in their way of doing business. As noted above there is still some reluctance with a number of OGAs to fully adhere to the ReSW. RRA hopes gradually to overcome this reluctance, and believes that some strong messages to these OGAs coming from high-level politicians would help to break this reluctance.

6.2 Financial sustainability of the ReSW after the end of TMEA support

84. RRA is fully committed to the further development of the ReSW. The Evaluation team was informed of the full support of RRA to finance the maintenance and eventual new IT investment that the ReSW will require in years to come. The business plan of ReSW provides that operational costs be financed by the transaction fee revenues; these rather modest fees can in the future be increased when judged necessary, and still be considerably lower than fees charged by other eSWs in Africa. This approach appears adequate to ensure continued financial stability for the project after TMEA's support ends.

85. RRA is concerned about the IT support that is presently provided by UINCTAD and that will be terminated at the end of the TMEA phase II project. Building up local IT capacity and retaining them in customs operations is a common approach taken by many customs services across the developing world and will need to be dealt with appropriately. RRA engages in intensive training of its IT staff with the expectation that they will be able to run the IT side of the ReSW with minimal external support. However, even if this were successful, retaining these qualified IT specialists may be a critical issue. RAA may have to decide either to provide for a higher salary scale for the IT staff or to outsource these tasks to local IT specialists.

6.3 Programming approach of ReSW in coming years

86. Upon termination of the TMEA Phase II support for the ReSW, the presently well-functioning RRA Unit set up to implement the ReSW is likely to be disbanded and its functions taken over by the RRA team responsible for the roll out and maintenance of its overall IT program, under which the ReSW will be placed. This could weaken the monitoring of the good functioning of the ReSW and its further roll out and development. To address this risk, TMEA could reach out to RRA management to investigate the details of this transition and how best to maintain and make further progress with the ReSW.

87. Phase II of the TMEA project (which runs till end October 2016) supports the RRA's Trade Facilitation allocates and allocates $1 million to further improve various aspects of the ReSW and support its sustainability. Funds are allocated to UNCTAD and include the following elements.

- Developing a system of issuing e-Certificates of Origin ($110,000);
- Promoting regional customs interconnectivity and cargo tracking ($140,000);
- Upgrading the interface to link ReSW with OGA and extend the list of OGAs connected to the ReSW ($160,000);
- Upgrading of the ASYCUDA World ($100,000);
- Developing a system to permit mobile access to the ReSW especially targeting small traders ($70,000);
- Providing performance measurement system for RRA operations and private sector operators ($200,000);
- Technical business support for design and maintenance of ReSW e-documents. Documents such as arrears, customs licences, appeals information will be finalized and enhanced ($100,000);
- Development of a petroleum quantity management module ($40,000);
- Development of an e-query that will allow Customs and Trade to query some declaration entries. ($80,000);
- In the process UNCTAD will continue its training of IT staff so that the handover of the IT aspects of the project at the end of TMEA support proceeds smoothly.

88. These initiatives are fully in line with the original design of the project and promise to strengthen the sustainability of the project. The TMEA/RRA Memorandum of understanding also allocates $300,000 to the expansion of the Authorized Economic Operators programme, an expansion that should simplify import and export procedures for a larger group of trusted traders and reduce clearance time further. Section 7 outlines some recommendations that if followed up could complement and further contribute to the objectives of improving trade facilitation in Rwanda.

6.4 Continued investment in ICT infrastructure

89. Internet penetration has grown significantly in Rwanda over the last five years, from 8 per cent of individuals using the Internet in 2010[19] to an estimated 25% in 2015.[20] The Government of Rwanda has set a target of 70 per cent of Rwandans using the internet by 2017, and making all government services available online by 2018.[21]

90. Significant investment in the 4G network will also be an important factor in increasing the accessibility of citizens to the internet. The $260 million investment over the next five years will seek to provide 100 Mb/s coverage across 95% of the country, with Kigali already largely connected. Indeed, the ICT sector has attracted 45 per cent of all FDI since 2010.[22]

91. The increasing supply of internet services coupled with the increasing demand by a growing share of the population with access to smart mobiles is an important factor for the growth of the eSW. As outlined above, the next phase of the project will invest to ensure that the eSW is accessible by mobile phone, which has the potential to target smaller-scale traders and clearing agents. This will also require further sensitisation and awareness raising to ensure maximum impact in terms of the number of users effectively accessing the eSW.

6.5 Tackling high costs of trade

92. The significant time and cost of transporting goods to and from Mombasa and Dar es Salam handicaps Rwanda's external trade and integration. This situation is the result of a poorly organized and poorly performing transportation sector. Hundreds of trucks were waiting at both sides of the Rusumo border when the Evaluation team visited. Drivers interviewed provided a variety of reasons why they were parked at Rusumo, even though customs procedures were very fast. Some drivers were held up at the border for up to six days for reasons stemming from:

    - Lack of adequate insurance papers (some left their trucks and went to Burundi to purchase cheaper coverage) or the necessary transit driver license.
    - Cash to pay for the road toll.
    - Mechanical failure and were waiting for spare parts that needed to come from Dar es Salam.

93. These dysfunctional aspects of transport/transit greatly increase transport costs at the detriment of the Rwanda economy. Recent reports suggest that the transit time between Mombasa and Kigali was reduced from 21 days to about 6 days. If confirmed and generalized also to the Southern Corridor, this would lead to a drastic reduction in transport costs but only if and when reflected in lower transport tariffs. This could results in large savings for the Rwandan economy.

[19] ITU statistics

[20] Rwanda Utility Regulatory Agency (Feb, 2015)

[21] "Rwanda targets 70 per cent internet access by 2017." March 23, 2015.

[22] Ibid

7. RECOMMENDATIONS

7.1 Specific recommendations for improving the impact and sustainability of the ReSW

94. As outlined in section 4, RRA should improve its expenditure tracking mechanisms and reporting structures, including a more robust approach to financial reporting in the Quarterly Reports. Moreover, targeted capacity building for further developing project management capabilities could help to ensure continued success of the ReSW project.

95. Training of IT staff should receive top priority to ensure that the IT support system continues to function efficiently once the UNCTAD support ends, especially with the roll-out of mobile access to the eSW. As in many other countries there is the risk that well trained staff leave the RAA for better-paid jobs in the private sector. RRA should consider either offering higher salaries to the IT staff or outsourcing this function. TMEA could assist the RRA and other customs authorities in the region to address this thorny yet critical issue that will impact on the sustainability of the eSW initiatives across the region

96. Moreover, it will be critical that lessons learned through this project will be applied to other TMEA-funded eSW initiatives in the region. For instance, TMEA and Denmark agreed in late 2014 to finance the Ugandan eSW which will also be implemented by the national customs authority (Uganda Customs Authority) based on an ASCUYDA World platform, so lessons from the RRA would be very relevant to share early on in the process. Case Study 2 provides further insight into the regional aspects of national eSW establishment and how TMEA can help to leverage the impact of the significant investment in these platforms in the region.

97. In terms of increasing the impact on trade outcomes in Rwanda, given the significant gains made to date, the average release time is likely to be reduced only slightly in the future. Particular efforts should be made to reduce the very large standard deviation of release time to increase predictability (see Case Study 1). Further specific recommendations for improving the functionality of the ReSW are outlined below:

- Harmonizing OGA's working hours with those of RRA. Statistics show that release times on the weekend are longer than during the week. For the RSB, for instance, when release time was calculated for weekdays only, the average release time drops from average 2hr 12 minutes to 1hr 46 minutes. Dedicated staff could be on duty in the various Ministries and agencies connected to the ReSW during the operating hours of the RRA. Moreover, RRA and RSB physical inspections are always undertaken jointly.
- Fully Integrating MINISANTE, MINAGRI and its related agencies (NEAB, RAS, RALIS) and the Ministry of Natural Resources into the ReSW. This may not greatly reduce the average release time, but will be beneficial for those traders that rely on certification from these Ministries.
- Adjusting the risk classification of products at RRA and RSB so as to reduce the many goods that are automatically classified as high risk and subject to physical inspection. At the RRA the share of cargo subjected to the red channel—a process that takes up to twice as long as cargo classified as yellow--has remained substantially unchanged at 25 per cent since 2010.
- Examining the possibility of expanding the RRA service standards as detailed in the RRA Service Charter, and establishing similar standards for other OGAs that are involved in the clearance of cargo, and set up a monitoring mechanism to ensure adherence to these standards. This could be done in conjunction with the Phase II objectives of building up performance standards for RRA and private sector as per the relevant UNCTAD and WCO guidelines.

- Promoting the pre-arrival declaration facility. At the airport, only 5 per cent of cargo takes advantage of this facility and at Rusumo also a small share of declarations are arranged on a pre-arrival basis.
- To avoid delays in the responses received from RSB and the Ministries that provide for e-exemptions, the ReSW should arrange to send emails and/or SMS messages alerting well-identified staff in these agencies and Ministries that a response is solicited, thereby avoiding delayed responses. This feature exists in the ReSW exists but appears somewhat underutilised or contacts at the various Ministries are not updated.
- Expanding the AEO program to ensure more cargo can be directed to the green channel (immediate release) and can be delivered directly to the owner's premises.
- Ongoing discussion of the modalities of the SCT implementation should permit traders to move their cargo from Mombasa and Dar es Salaam without paying duties and taxes. Such a facility would save them liquidity for several days – a significant savings in an environment of 20 per cent interest rates—and speed up customs release. Moreover, Continuing to develop the trade facilitation features of the Single Customs Territory should be a priority (see section 5.3).

7.2 Broader recommendations

98. Given the significant customs expertise of the Evaluation team, we highlight some further recommendations specific to the RRA and GoR which could help to strengthen the respective institutions:

- RRA could better monitor tax exemptions and institute a special monitoring and control unit with responsibility for overseeing all administrative matters concerning exemptions so as to avoid fraud and abuse. As note earlier RDB and RRA provide tax exemptions without verifying similar exemptions granted to the importers that could detect duplicate exemption requests. The ReSW data warehouse could provide a system for ensuring that exemption requests are not duplicates, as many OGAs do not have systems in place to monitor this.
- A review of the ASYCUDA database suggest that in many cases import duties and taxes appear to be levied on the FOB value of cargo not the CIF as the Customs Code prescribes. RRA noted that this observation stems from various factors (ii) terminology used in the ASYCUDA data base is not fully transparent; sometimes the FOB columns in fact refer to CIF; (iii) intra-EAC trade is taxed only on FOB; and (iii) air freight traffic is not dutiable according to the EAC Customs Management Act EAS. RRA would do well to clarify this issue and adjust its reporting format accordingly to ensure that in fact all goods that are due to be taxed on their CIF basis are actually taxed as such. This is important as the cost of insurance and freight can range up to 20 per cent of the FOB value. Using FOB instead of CIF can lead to significant revenue losses for the RRA.
- Setting up a formal Trade Portal (TP) that would operate as a complement to the ReSW (see Case Study 3).

ANNEX 1: CASE STUDIES

Case Study 1: Improving clearance time predictability: understanding the importance of standard deviation

Section 5.2 of the report provided a detailed analysis of the average release times of imports and exports for the 2010-2014 period. In addition it identified the release times for the various stages; some of these changes can be attributed to the ReSW, others are the result of other reform measures identified in the report. These data highlight progress as well as outstanding issues that can guide RRA in further streamlining its operations and extracting more benefits from the ReSW platforms o as to further better serve the trading community by reducing these times. These finding provide more information that has so far been used to monitor the progress of the ReSW, and can be updated regularly with minor effort.

In addition, the table below provides information on standard deviations for the overall time release estimate and for the different stage for the period 2010-2014. This is the first time that this statistic has been calculated for Rwanda release time and is rarely computed in time release studies. It contains valuable information and can assist in focusing on problem areas in the release process. The standard deviation statistics reflect how representative the calculated averages are for the population of release times of the data set. It informs us that 78.2 per cent of all observations fall within one standard deviation. For instance if the average time it takes between acceptance and release is 483 minutes and the standard deviation is 1118 minutes (Q4, 2014) it means that in the frequency distribution of this statistic, many more observations are to the right (more time) of the average than to the left (less time). In other words the median time at this segment of the release process takes much longer than the average. Instead of the average 483 minutes, most cargo is held up for much longer times at this stage, even days. Table CS1.3 shows that the standard deviations are very high at all stages of the clearance process. Only at the acceptance to release stage did the standard deviation drop between 2010 and 2014, while it increased at the stage of payment to acceptance.

Traders are interested not only in the average time it takes to release the goods, but also about the assurance that their time spent clearing goods is predictable. With very large standard deviations this predictability is undermined and traders need to adjust for this uncertainty by building up larger inventory levels, which can be costly. Figure 2 in the body of the text provides a visual presentation of the release times for different stages of the customs clearance process. The detailed statistics are provided in Table CS3 at the end of this Annex.

The significant standard deviations are caused by a number of factors. Traders may delay payments for a variety of reasons, while operational issues on the RRA side may result in delays. On the RRA side, one of the major causes of the large levels of standard deviation results from the inspection process and risk assessment system. Goods which must go through the red channel (high risk) require significantly more time than goods through the green channel, which tend to be released very quickly.

Table CS1.1: Share of cargo by channel

	2010				2011				2012				2013				2014			
Selectivity Channel (%)	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
GREEN	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	4%	5%	6%	7%	8%
BLUE	54%	35%	57%	62%	59%	59%	58%	55%	50%	50%	53%	47%	60%	54%	58%	57%	61%	56%	53%	49%
YELLOW	8%	6%	10%	8%	7%	7%	7%	7%	12%	9%	12%	9%	6%	6%	8%	8%	8%	9%	11%	11%
RED	26%	19%	19%	18%	29%	28%	28%	29%	27%	26%	27%	25%	25%	32%	23%	24%	20%	27%	23%	27%
NON CHANNEL	13%	40%	15%	12%	5%	6%	7%	9%	11%	14%	8%	19%	9%	9%	8%	7%	6%	2%	6%	6%
TOTAL	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

The percentage of cargo inspected through the red channel has remained largely constant since 2010, at about one quarter of total imports (see table SC1). In early 2014, the inspection of these goods took 29 per cent longer than for cargo inspected through the yellow channel and 275 per cent longer than for cargo classified as blue. Green channelled cargo is released even faster than the blue, as it undergoes no document or physical inspection. One method to reduce the release time as well as the standard deviation for release time is for the RRA and the relevant OGAs[23] to critically review the need to physically inspect the large share of cargo they do inspect.

The initiative of the RSB to request that certain goods require a Certificate of Conformity from SGS before departing the country of origin will reduce the share of cargo that undergoes physical inspections upon arrival in Rwanda. However so far data suggest that the intensity of the RSB inspections is increasing, from 14 per cent of all imports in 2012 to 43 per cent in 2014, while the share of cargo inspected under the red category dropped only slightly from 74 to 70 per cent between 2012 and 2014. This certainly did not contribute to the reduction in overall release time and prevented standard deviations to fall. RSB representative disputed the data provided by RRA and suggested much lower rates on inspection and lower shares of goods channelled through the red channel. In its comments to this analysis from RRA RSB also noted that it started to reduce inspection for reliable traders—a program that would appear to mirror the RRA program of Authorized Economic Operators that was rolled out on a small scale in mid-2014--program. Such a practice would tend to reduce rather than increase the rate of inspection or at least reduce the time it takes to inspect cargo. RSB also noted that the increase in its inspection rate follows the recruitment of more staff that permits it to better undertake its mandate of consumer protection and monitor trade at more borders.

Table CS1.2: RSB, Risk management data 2012-2014

YEAR	RED		YELLOW		BLUE		Total RSB targeted	Total Commodities	Percentage of RSB Tageted commodities to toal imported commodites
	Number	Percentage	Number	Percentage	Number	Percentage			
2012	32,575	74.14%	1,226	2.80%	9,963	22.76%	43,764	307,694	14.22%
2013	69,459	65.20%	17,039	15.99%	2,002	18.79%	106,518	312,400	34.10%
2014	99,700	70.30%	29,415	20.74%	12,696	8.95%	141,811	332,561	42.64%

Source: RRA

[23] PSB, MINAGRI, MISANTE, etc.

Table CS1.3: Average and standard deviations of release times, 2010-2014

Import	2010				2011				2012				2013				2014		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Registration to Payment (Average)	00:14:36	00:13:47	00:13:24	00:13:32	00:14:13	00:15:12	00:13:35	00:14:13	00:15:12	00:13:23	00:12:46	00:13:05	00:13:34	00:12:18	00:12:52	00:11:32	00:11:11	00:11:02	00:10:11	00:08:37
Registration to Payment (Std Dev)	00:21:33	00:20:12	00:19:29	00:20:17	00:20:33	00:21:37	00:19:58	00:19:19	00:22:43	00:23:34	00:20:57	00:22:05	00:22:43	00:21:34	00:21:10	00:19:55	00:20:16	00:19:31	00:19:24	00:18:37
Payment to Acceptance (Average)	00:09:18	00:08:48	00:06:36	00:07:05	00:07:02	00:06:09	00:05:41	00:06:54	00:04:14	00:07:51	00:09:05	00:05:58	00:07:20	00:10:23	00:09:19	00:12:28	00:10:41	00:07:35	00:09:35	00:11:22
Payment to Acceptance ((Std Dev)	00:17:15	00:16:49	00:14:47	00:15:08	00:15:53	00:14:12	00:12:16	00:14:01	00:10:21	00:16:53	00:19:27	00:13:39	00:16:34	01:02:30	00:20:08	01:02:42	01:00:12	00:17:35	00:21:54	01:02:57
Acceptance to Release (Average)	01:04:22	01:04:55	01:08:12	01:06:20	01:12:04	01:11:38	01:15:27	01:16:12	01:04:18	00:14:23	00:14:20	00:15:45	00:15:37	00:15:52	00:15:59	00:14:05	00:13:12	00:12:14	00:09:30	00:08:03
Acceptance to Release (Std Dev)	01:07:16	01:07:11	01:11:01	01:06:44	01:11:26	01:12:08	01:14:30	01:13:21	01:09:14	01:02:39	01:01:37	01:02:54	01:03:48	01:03:01	01:03:05	01:01:20	00:23:44	01:00:31	00:22:12	00:19:43
Release to Exit (Average)	00:15:22	00:14:28	00:12:47	00:13:43	00:13:13	00:14:48	00:12:20	00:12:26	00:13:04	00:14:52	00:14:33	00:12:55	00:13:22	00:09:08	00:10:00	00:11:23	00:10:51	00:09:00	00:09:00	00:06:51
Release to Exit (Std Dev)	00:20:10	00:19:55	00:19:31	00:19:39	00:19:01	00:21:47	00:18:52	00:18:02	00:23:35	01:02:14	01:00:39	00:22:09	01:01:20	00:19:54	00:21:15	01:00:50	00:23:58	00:23:21	00:21:27	00:18:49
Registration to Exit (Total Time)	**02:19:40**	**02:18:00**	**02:17:01**	**02:16:42**	**02:22:34**	**02:23:49**	**02:23:05**	**03:01:45**	**02:12:49**	**02:02:31**	**02:02:45**	**01:23:45**	**02:01:54**	**01:23:42**	**02:00:12**	**02:01:30**	**01:21:57**	**01:17:44**	**01:14:18**	**01:10:55**
Registration to Exit (Std Dev)	01:18:38	01:17:55	01:20:12	01:18:01	01:19:55	01:21:48	01:21:48	01:21:37	01:23:19	01:19:16	01:16:47	01:17:43	01:20:40	01:20:24	01:20:12	01:21:12	01:21:12	01:20:40	01:20:08	01:19:41

Export																				
Registration to Payment (Average)	00:06:10	00:04:12	00:04:37	00:03:42	00:03:28	00:04:02	00:03:38	00:03:39	00:04:40	00:07:33	00:08:07	00:05:13	00:04:33	00:04:30	00:04:40	00:04:05	00:04:05	00:03:41	00:03:39	00:04:40
Registration to Payment (Std Dev)	00:11:59	00:06:05	00:08:21	00:06:42	00:07:58	00:06:58	00:05:35	00:10:16	00:23:36	00:15:34	00:19:08	00:10:24	00:14:28	00:10:52	00:10:42	00:08:17	00:09:05	00:08:20	00:10:57	00:13:43
Payment to Export Release (Average)	02:12:01	02:15:12	02:11:11	02:07:18	03:00:43	02:13:20	02:03:49	02:15:12	01:06:28	01:06:24	01:07:59	01:07:59	00:21:44	01:03:09	01:02:45	00:20:24	00:23:51	00:22:49	00:23:08	01:03:44
Payment to Export Release (Std Dev)	01:13:16	01:18:37	01:14:10	01:17:03	01:23:01	01:19:33	01:16:33	01:21:40	01:09:04	01:08:52	01:08:35	01:09:31	01:08:41	01:15:00	01:12:19	01:02:47	01:10:18	01:08:51	01:08:19	01:13:39
Registration to Exit Release (Total Time)	**02:18:12**	**02:19:25**	**02:15:49**	**02:11:00**	**03:04:11**	**02:17:23**	**02:07:28**	**02:18:52**	**01:11:08**	**01:13:58**	**01:16:06**	**01:13:12**	**01:02:17**	**01:07:40**	**01:07:26**	**01:00:30**	**01:03:57**	**01:02:31**	**01:02:47**	**01:08:24**
Registration to Exit Release (Std Dev)	01:14:25	01:18:37	01:14:05	01:17:10	01:23:01	01:19:28	01:16:34	01:22:04	00:23:36	01:02:37	01:05:10	01:03:19	00:21:32	00:23:29	00:22:48	00:16:24	00:21:06	00:21:07	00:21:53	00:23:28

Note: Extreme value exclude is time beyond seven days

Case Study 2: Lessons for strengthening the regional impact of the ReSW initiative

At the launch of the Kenyan Electronic Single Window in May 2014, President Uhuru called for the establishment of an EAC regional single window platform to integrate the national single window systems in partner states. Discussions on this initiative are ongoing as part of the EAC SCT operationalization, but currently only Kenya and Rwanda have functioning national-level eSWs, though progress is made in establishing eSW in the other EAC member states. In late 2014, Tanzania contracted the delivery of the eSW to a private contractor, with initial roll-out for the Port of Mombasa with other border crossing and airports to be connected in the second phase. TMEA is supporting the development of the eSW in Uganda, with an agreement signed for support from the Government of Denmark in September 2014. In March 2015, Burundi launched its own eSW with a number of key agencies already connected.

The regional approach to eSW has been pioneered by the launch of the ASEAN Single Window Project (ASW) in 2013. The ASW is a regional initiative that connects and integrates national-level eSWs of Member States. ASW implementation is expected to ensure compatibility of Member States eSWs with international open communication standards while also ensuring that each of those Member States can then exchange data securely and reliably with any trading partners that use international open standards. The ASW at present is rather limited in scope and connects only the Customs agencies of some ASEAN member countries. It currently supports the exchange of the intra-ASEAN certificate of origin (ATIGA Form D) and ASEAN Customs Declaration Document (ACDD) on a pilot basis among seven Member States and will later be expanded to exchange other types of data. Eventually the ASW, because it uses international operability standards, can support the exchange of certificates of origin and advance cargo information with non-ASEAN trading partners.

As highlighted by Koh and Moweman (2013), the benefits of implementing the ASEAN Single Window are likely to become more and more evident over the next few years, as each of the Member States embark on trade facilitation improvements programmes and implement their own fully articulated National Single Windows. When all ten National Single Windows have been integrated through the ASEAN Single Window, the authors note, it would not be unreasonable to expect ASEAN to be the easiest region in the world to trade with.

Though the ASW has helped to facilitate trade within the region, the implementation of the ASW took almost a decade between the political decision to launch the initiative in 2005 and the very partial implementation in 2013, despite having received significant technical and financial support from development partners such as USAID and the UN.

The lessons from ASEAN could be applied for a regional eSW initiative to work in the EAC, as a number of critical factors would have to be addressed. All five partner states would need to establish fully functioning national-level eSWs, which as noted above is already in the works.

TMEA could play a vital role in helping to integrate and coordinate these national level initiatives to ensure greater impact. For instance, TMEA could support a pilot project to connect Kenya and Rwanda (or perhaps Burundi and Rwanda), which could then be expanded across the

region once the eSWs have come online. This would require that a set of technical guidelines be agreed to ensure integration across the two platforms, and would allow transit documents to be cleared and downloaded and bond guarantees lifted more quickly. As well, this would allow the verification of export and import documents for the post clearance audits.

In parallel, TMEA should also take an active role in leading regional discussions to ensure the newer eSW platforms are effectively implemented and lesson sharing takes place amongst the key stakeholders, particularly between the countries which have fully functioning eSWs and those in the process of implementation.

Case Study 3: Complementing the ReSW: Establishing a comprehensive Rwanda Trade Portal

Establishing a Formal Trade Portal

A Trade Portal is a web-based trade facilitation tool that provides reliable and up to date information on all laws, regulations and procedures for traders and government agencies involved in the import and export of goods. The tool complements the overall goal of the electronic single window since it reduces the time and costs of obtaining information whilst offering greater transparency and predictability to trade transactions (World Bank, 2014). The Trade Portal is often considered a 'first step' towards the implementation of an eSW and increasingly seen as a way of promoting greater trade facilitation. (Pugliatti,2014).

For WTO members, a Trade Portal assists them in complying with the new Trade Facilitation Agreement commitments related to Article 1 on publication and availability of information. The main obligations under this article is that Member States are required to publish 'promptly' a wide range of specific information related to requirements and procedure of clearing goods for import and export. In addition, Member States are required to publish this information on the internet (ITC, 2013).

Despite the benefits of a Trade Portal, the development of this intervention can be extremely challenging for developing countries. Pugliatti (2014) provides a practical guideline for the steps required to develop a Trade Portal. The first step is to define the scope of the Portal in terms of the information that will be published, identifying key agencies that play a role in trade and what information they oversee as well as setting up a governance structure that will guarantee that all agencies collaborate on feeding all relevant information. This is particularly challenging due to the various regulatory requirements and agencies involved in trading activities. Other steps of developing a Trade Portal include defining an ICT systems and operational model and consider the intervention on-going sustainability in terms of maintaining the information accurate and up to date and defining a financing mechanism. During implementation main challenges include maintaining IT equipment and expertise and sensitizing traders and other stakeholders on the reliability and benefits of the portal.

Operational Trade Portals

Several developing countries have operational Trade Portals, however the most cited in the literature include the Lao PDR Trade Portal and the Lesotho Trade Portal. The Lao PDR Trade Development Facility Project was supported by a multi-donor trust fund administered by the World Bank and involved a cost of EUR 230,000 (Moses, 2013). In the case of Lao, the Trade Portal is one of the trade facilitation interventions being implemented as part of the government's blueprint for the establishment of the National Single Window (Record, Mclinde & Siva, 2013).

The Portal is hosted by the Department of Import and Export of the Ministry of Industry and Commerce and offers a guide import and export for traders and other stakeholders engaged in trading activities that offers information on customs laws, regulations, procedures, fees and taxes. The portal also makes available information on the several government agencies involved in trade and several publications on various topics related to trade including trade facilitation and market access. The Trade Portal also serves as a WTO TBT/SPS enquire point for information on proposed and adopted technical rules and regulation, standards and conformity assessment procedure of Lao and other countries. In the near future the Portal will also incorporate functionalities to facilitate public consultations between the administration and the private sector on new regulations, procedures or non-tariff measures (Moses, 2013). Despite challenges, such as keep the information on the website up to date, and no formal assessment of the impacts of the portal, the intervention is considered a case of success and it is being replicated in Lesotho.

Using the technology of the Trade Portal in Laos, the Lesotho Trade Portal is being hosted by the One-Stop Business Facilitation Centre (One Stop Shop), an initiative of the Government of Lesotho that aims at creating a conducive business environment in the country. It makes use of the same approach and, similar to the Trade Lao Trade Portal, makes available to traders a guide on exports and imports and information on the various government agencies involved in trading activities (Lesotho Trade Portal, 2015). In Lesotho, the Trade Portal will also support public private dialogue between traders in the region and relevant authorities.

The Trade Portal being funded by the World Bank Trade Facilitation Facility. It is one component of a $1.7m project whose original aim was to harmonize customs and border procedures between Lesotho and South Africa in order to promote trade and FDI. Following some preliminary work, the focus of this grant was moved away from promoting closer collaboration between the South African Revenue Authority and the Lesotho Revenue Authority (LRA), and towards improving the customs procedures of Lesotho.

Although the Trade Portal has only been launched an Impact Study commissioned by the TFF and a recent evaluation of the TFF have found good results regarding the trade portal, including positive signs of sustainability. One of the positive aspects was that the Trade Portal required an MOU to be signed between 9 border organisations, and the process of collating the information for the Trade Portal required extensive coordination. This is seen by stakeholders to have had a lasting impact on the way they interact with each other. In addition, interviews with stakeholders have shown that beneficiaries are very satisfied with the services provided by the portal, acknowledging it as a useful tool that increases their knowledge. Despite the achievements, the project still needs to improve its outreach. Only 55 per cent of traders indicated that the Portal provides clear and detailed information. Other challenges include the lack of awareness and trust from traders on the information provided on the website.

Case Study 4: Electronic Single Window Business Models

The first Electronic Single Window (eSW) was introduced in Singapore in the late 1980's. The Singapore TradeNet links multiple parties involved in external trade, including 34 government agencies, to a single point of transaction for most trade related transaction such as Customs clearance and payment of duties and taxes, processing of export and import permits and certificates of origin and collecting trade statistics. Between 1989 and the maturation of the system in the early 2000's the major achievements included:

- Processing time was reduced from 2-7 days to within 2 minutes.
- Number of documents required fell from 3,035 (depending on the transactions) to 1.
- During this period the number of daily transactions processed rose from 10,000 per day to 30,000 per day.
- Freight forwarders estimate that they save 20-35 per cent of the cost of handling trade documentation.
- Payments of customs duties enter government coffers much faster than before.
- The compilation of trade statistics is substantially improved, benefiting the trading community as well as national authorities responsible for trade policy and economic surveillance.

Since the launch of the Singapore TradeNet, over seventy countries have established eSWs of varying complexities, including over half a dozen or so in Africa, including the Rwanda eSW launched in 2012.[24] This case study provides a brief overview of two different business models for implementation of the eSW and examines key pros and cons of the two models to inform TMEA and policymakers in the region who may be considering establishing eSWs. T

This is particularly relevant given all TMEA countries are members of the WTO, and will need to implement the Trade Facilitation Agreement, which urges countries to establish or maintain eSWs.

The public model

The government funded and managed eSW is the model adopted by the majority of countries, including Rwanda and Singapore. The national customs authority is the implementer and takes on the coordination responsibility within the government. Governance is mostly guided by a Committee that represents Ministries involved in trade and trade oversight, private sector stakeholders selected from Members of the Chamber of Commerce. Leadership of this Committee tends to be entrusted to the Ministry of Finance.

Pros	Cons
• Low charges for clearing agents and traders (e.g. approx. $4 per declaration in the ReSW case); • Development of national implementation capacity; • Facilitates coordination with other government agencies.	• Mobilizing the necessary financing may delay or prevent the start of the project; • Requires strong local implementation capacity which is not always present in developing countries; • Project implementer may lack the international experience and risks to be captive to local idiosyncrasies.

[24] http://www.doingbusiness.org/~/media/GIAWB/Doing%20Business/Documents/Annual-Reports/English/DB14-Chapters/DB14-Implementing-trade-single-window.pdf

The PPP model

Under the Public-Private Partnership (PPP) model, the eSW is set up and managed by a private company funded by a combination of public and private funds. This is the operational model for Ghana, Mauritius, Hong Kong, Senegal and Mozambique.

The share of private contribution in the total equity varies according to local circumstances. In practice several of the PPPs that operates ESWs have a majority of private funding. One good example to date of this business model is GCNet in Ghana. GCNet was created in 2000 with equity of $5.3 million, with 60 per cent contributed by a Swiss company Societe Generale de Surveillance (SGS), 20 per cent by the Ghana Customs Authority, 10 per cent by the Ghana Shipping Council and the remaining 10 per cent by two local banks. To ensure the smooth launch and continued operation of the GCNet, SGS infused another $1.7 million in 2014.[25]

The Government of Ghana selected this approach to ensure an experienced implementing agency at the helm of the eSW. The Customs Division of the Ghanaian Revenue Authority (GRA), who would have been the logical implementer of the eSW from the government side, was at that time not considered to be in a position to lead the new project and to ensure the adherence of OGA to the project.

GCNet, following Mauritius' example and later followed by Mozambique, selected to adapt the Crimson Logic's IT platform to the Ghana environment, thereby avoiding the need to spend scarce further resources on the development and installation of a brand new IT platform.

According to an independent evaluation of the GCNet, the PPP was successful in Ghana, despite the relatively high costs of the project and was the basis for the renewal of the contract. Moreover, the international expertise facilitated the broader customs modernisations initiatives, and helped to provide advise on issues such as streamline transit procedures and introducing truck tracking systems.

Pros	Cons
• Access to private capital reduces the need for public or development partner financing; • Can provide access to broad international experience in eSW and customs modernisation from private sector service providers; • May offer greater flexibility and innovation and simplify the access to additional financial resources; • Requires less government involvement and oversight.	• Higher costs to clearing agents and traders as fees need to be sufficiently high to finance operational cost as well as a compensation for the equity capital invested in the project; • Reliance on non-national expertise may inhibit local capacity building; • Policy commitment must be substantial to overcome the anti-outsourcing attitude of some stakeholders and development partners.

[25] Luc De Wulf (2004), Ghana, Luc De Wulf and Jose Sokol, eds, Customs Modernization Initiatives, World Bank, Washington DC

Case Study 5: Can improved trade facilitation help tackle poverty?

Despite the benefits that trade facilitation initiatives such as the introduction of an eSW may yield for a wide range of stakeholders including clearing agents, importers and exporters and government agencies, like most trade reforms, the links between these types of investments and poverty reduction are not so clearly defined.

A recent study (Shepherd, 2014) has found that trade facilitation interventions can have direct effects on poverty by altering relative prices in agriculture and manufacturing. Although the study has not focused exclusively on eSW, the findings could be used to understand some of intended and unintended effects of such intervention on the poor. Trade facilitation efforts that reduce importing and exporting prices have different effects in different groups and may create winners and losers even among the poor. The nature and size of the effect depend on whether or not the particular groups of people are net producers or net consumers of traded goods, and whether or not these are exported.

Exporters tend to benefit from trade facilitation interventions. Shepherd (2014) highlights that 'reducing transaction costs for exporters means that the overall wedge between the farm or factory gate price and the world price is reduced to some degree.' As highlighted in the report, a number of factors affect farm and factory gate prices, and changes in transaction costs may not immediately translate into increased prices. Poor groups that may benefit includes those involved in the production of exportable goods such as cash crops like cocoa, coffee or cotton. Other group that may benefit from lower export prices includes those employed by exporting firms. Lower export prices can also have the opposite effect by leading to higher domestic prices and negatively impacting net consumers of the exported good. According to the author, this could potentially increase poverty.

Similar dynamics happen with imports. When border procedures are streamlined, the price wedge between consumer prices and world price is reduced. A decrease in consumer prices increases purchasing power and allows for access of a greater range of goods. Poor groups that consume imported goods (e.g. rice or sugar) may benefit from lower prices, however poor groups involved in import-competing industries, and groups that are net consumers of exported goods, may be negatively impacted by trade facilitation interventions.

In East Africa, poor groups are particularly sensitive to changes in food prices. A WFP (2008) study found that vulnerable and chronically food insecure groups were 'most likely to be impacted by increasing food and transport costs.' The most food insecure groups tend to be households that rely on wage labour, handicrafts/artisans or those engaged in urban agriculture. Simler (2010) found that poor households in Uganda tend to be net buyers of food staples, and therefore suffer welfare losses when food prices increase.

A literature review on links between poverty and trade facilitation[26] has pointed out that whether informal cross border traders (ICBTs) are positively or negatively impacted by trade facilitation interventions is highly dependent on the characteristics of the traders. This depends on which category they fall into: 'Categories A (unregistered traders or firms operating entirely outside the formal economy), B (registered firms *fully* evading trade-related regulations), or C (registered firms *partially* evading trade-related regulations)' and it has to be considered in a case-by-case basis.

Besides the effect caused by price changes that can impact ICBTs as net consumers of imported/exported traded goods, for traders that fall under the Categories B and C the introduction of a eSW could be extremely beneficial since some of the trade constrains are particularly harsh on informal traders. Required documents, for example, 'are generally issued in the city centres, miles away from the borders' which can result in total loss of the goods (Afrika and Ajumbo, 2012). The improvement of clearance time of imported/exported goods associated with the introduction of the eSW can prevent losses of goods and have positive impacts on the income of these groups.

On the other hand, all categories of informal cross border traders may be negatively impacted by the introduction of eSW. Shepherd's review (2014) on the links of trade facilitation and poverty suggests negative impacts of trade facilitation interventions on ICBTs. According to the author improvements in the trade facilitation environment may lead to a shift from informal to formal trade activities. He indicates that 'formal trade is typically conducted by organized traders, at a much larger scale individually than informal trade currently is. The shift towards formalization of trade can therefore have negative implications for people involved in informal trade, if they are unable to find employment in the formal sector.'

Moreover, ICBTs could be less likely to benefit from interventions aiming at streamlining border and customs procedures such as the eSW. One example is the COMESA Simplified Trade Regimes (STR) system. Although it was designed 'to overcome problems associated with small traders' (Brenton et al., 2013), Afrika and Ajumbo (2012) indicated that 'unfortunately, small-scale traders are generally unable to access STR benefits because of processing fees, low awareness on STR and its functioning and corruption.' Similarly, research based on interviews with traders on the Burundi-Rwanda border found that traders are afraid that 'more government involvement would place a double burden on them as they stood the risk of continuing to support the old informal structures of corruption that currently facilitates the trade as well as pay government formal taxes without requisite services'. (Masinjila, 2009).

[26] Saana Consulting has been commissioned by TradeMark East Africa to undertake the study that will seek to develop a strategy to ensure that OSBP and IBM Programmes are more Pro-poor. The study is currently on data collection phase.

ANNEX 2: RESW STAKEHOLDERS

Agency	Function	Connected (Yes or No)
Rwanda Revenue Authority (RRA)	Manages the central ReSW site that receives the declaration from the clearing agents and forwards this information to the other stakeholders of the ReSW and operates the customs management system (ASYCUDA World)	Yes
Clearing Agents	Submit the single declaration that satisfies all import and export requirements on behalf of the traders including the Agreed Economic Operators that benefit from automatic green channel selection for RRA.	Yes
Rwanda Development Board (RDB)	Manages the exemptions requests related to the investment incentives program of Rwanda. It receives these requests automatically provides on line authorization and informs the clearing agent of the status of the exemption request	Yes
Rwanda Standard Board (RSB)	Controls the quality of imports identified in a publicly available list, for safety purposes. ASYCUDA undertakes the risk assessment for these goods and RSB automatically calculates the fees required as well as the result of the inspection to the clearing agents.	Yes
Magasins Generaux du Rwanda (MAGERWA)	Acts as a bonded warehouse and automatically generates arrival and release notifications	Yes
Various Ministries granting tax exemptions	Exemptions granted by the following Ministries are provided on line: Ministry of Education, Foreign Affairs, Ministry of Agriculture, Local Governments, and Ministry of Natural Resources. Rwanda Air, Rwanda economic Zone	Yes
Airlines	Submit electronic manifests to airport authorities and RRA	Yes
Commercial Banks	Operate e-payments. Only one bank fully integrated.	Partial
Vehicle registration	Vehicle registration authorities are automatically informed of the importation of vehicles and registration is obtained before the release the vehicle, e-payment of registration fees. Vehicles are checked again the list of prohibited vehicles by INTEROL so as to prevent these vehicles from registering. The ReSW also maintains a register of all vehicles that enter and leave the Rwanda territory.	Yes

Statistics Department	Trade data are transferred automatically on a daily basis	Yes
Taxpayer Registry	Ensures that the same registration number is used for taxation and for ReSW	Yes
Several Ministries e-exemption	Ministries of Education, Foreign Affairs, Agriculture, Local Governments, Natural Resources, Rwanda Government Board, Foreign Affairs	**Yes** other Ministries still be connected
Ministry of Health (MINISANTE)	Should provide on line clearance for medication and other health related imports	**No**, RRA made frequent contacts without success
Ministry of Agriculture (MINAGRI)	Should provide import and export clearances and its various agencies responsible for providing phyto-sanitary	**No**, e-platform ready for installation but so far no activation
National Agricultural Export Development Board	Responsible for the certification of coffee and tea exports and should provide on line export certificates	**No**, should be connected in second phase of the project
Ministry of Natural Resources	Should provide on line export authorization in particular to ensure that minerals obtain “conflict free” the certificate increasingly required by importers	**No,** should be connected in second phase of project
Public Treasury	Could use Data Warehouse to strengthen its audit function	**No**
Utilities Regulatory Agency	Could provide import clearances on line for imports that fall under their jurisdiction	**No**
Environmental Regulatory Authority	Could provide import clearances on line for imports that fall under their jurisdiction	**No**

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ANNEX 4: LIST OF STAKEHOLDERS CONSULTED

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