Trade of Agriculture Safely and Efficiently in East Africa (TRASE)

Assessment of SPS Systems in the EAC Partner States

USDA

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Acronyms

AAPBP	Australia-Africa Plant Biosecurity Partnership
AFA	Agriculture and Food Authority (Kenya)
AFSTA	Africa Seed Traders Association
ASTF	Africa Solidarity Trust Fund
AUC	African Union Commission
AU-FSA	African Union Food Safety Authority
AU-IBAR	African Union – Inter African Bureau of Animal Resources
AU-IAPSC	African Union Inter-African Phytosanitary Council
BBN	Burundi Bureau of Standards and Quality Control
BCC	Burundi Coffee Company
CA	Competent Authority
CAADP	Comprehensive Africa Agriculture Development Programme
CABI	CAB International
CAC	Codex Alimentarius Commission
CBPP	Contagious Bovine Pleuropneumonia
CCFICS	Food Import and Export Inspection and Certification System
CIMMYT	International Maize and Wheat Improvement Center
C-MRF	COMESA Mutual Recognition Framework
CNTA	Centre National de Technologie Alimentaire (Burundi)
COMESA	Common Market for East and Central Africa
COMSHIP	COMESA Seed Harmonization Implementation Plan
COPE	Centre for Phytosanitary Excellence
CVL	Central Veterinary Laboratory
DFZ	Disease Free Zone
DGAL	Directorate of Government Analytical Laboratory
DREA	Department of Rural Economy and Agriculture (AUC)
DTRA	Infectious Disease Animal Research Laboratory
DVS	Directorate Veterinary Services
NFQCI	National Food Quality Control Laboratories

EAC	East African Community
EAFF	Eastern Africa Farmers Federation
EAGC	Eastern Africa Grain Council
EAPIC	East African Phytosanitary Information Committee
EU	European Union
FAO	Food and Agricultural Organization
FAW	Fall army worm
FBO	Food Business Operator
FCM	False Codling Moth
FMD	Foot and Mouth Disease
FSMA	Food Safety Modernization Act
FSNRL	Food Safety & Nutrition Reference Laboratory (Kenya)
FSVP	Foreign Supplier Verification Program
GCL	Government Chemist Laboratory (Kenya)
GCLA	Government Chemist Laboratory Authority (Tanzania)
IAB	Industrie Agro Alimentaire Du Burundi
ICT	Information Communication Technology
ICIPE	International Centre of Insect Physiology and Ecology
IGAD	Inter-governmental Authority on Development
IITA	International Institute of Tropical Agriculture
ILRI	International Livestock Research Institute
IPM	Integrated Pest Management System
IPPC	International Plant Protection Convention
ISABU	Institut des Sciences Agronomiques du Burundi
ISPM	International Standard for Phytosanitary Measures
ISSBs	International Standard Setting Bodies
ISO	International Organization for Standardization
ISTA	International Seed Testing Association
ITC	International Trade Centre
IVC	International Veterinary Certificat
KCRI	Kilimanjaro Clinical Research Institute
KALRO	Kenya Agriculture and Livestock Research Organization
KEBS	Kenya Bureau of Standards
KEPHIS	Kenya Plant Health Inspectorate Service
KLBA	Kenya Livestock Breeders Association
KOA	KO Associates LLP
LOL V37	Land O'Lakes Venture37
LIMS	Laboratory Information Management System
LITS	Livestock Identification and Traceability Syste
LSD	Lumpy Skin Disease
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries (Uganda)
MALF	Ministry of Agriculture, Livestock and Fisheries (Tanzania)
MINEAGRIE	Ministry of Environment Agriculture and Livestock (Burundi)
MLND	Maize Lethal Necrosis Disease
MOH	Ministry of Health
MRA	Mutual Recognition Agreement
MRL	Maximum Residue Limit
NADDEC	National Animal Disease Diagnostics and Epidemiology Centre
NAEB	National Agriculture Export Board (Rwanda)
NaLIRRI	National Livestock Resources Research Institute
NARS	National Agricultural Research System
NARO	National Agricultural Research Organization (Uganda)
NFSS	National Food Safety Services
NPHL	National Public Health Laboratories
NPPO	National Plant Protection Organization
NSCS	National Seed Certification Service (Uganda
NTB	Non-Tariff Barriers to Trade
NVQCL	National Veterinary Quality Control Laboratory (Kenya)

NVL	National Veterinary Laboratory (Burundi)
NVS	National Veterinary Service
OCIBU	Burundi Coffee Board Office International des Epizooties (World Animal Health
OIE	Organization)
PACA	Partnership for Aflatoxin Control in Africa
PHS	Port Health Services
P-IMA	Prioritization of SPS investments for Market Access
PIMS	Pest Information Management System
PPP	Public Private Partnership
PPR	Peste des Petits Ruminants
PRA	Pest Risk Analysis
PS	Partner State
PT	Proficiency Testing
PVoC	Pre-shipment Verification of Certification
QMS	Quality Management System
RAB	Rwanda Agriculture and Animal Resources Development Board
RCT	Rice Council of Tanzania
REC	Regional Economic Community
RFDA	Rwanda Food and Drug Authority
RICA	Rwanda Inspectorate, Competition and Consumer Protection Authority
RNVL	Rubirizi National Veterinary Laboratory
RSB	Rwanda Standards Board
RVF	Rift Valley Fever
SADC	Southern African Development Community
SME	Small and Medium-sized Enterprises
SMFLC	St. Michael Food Lab and Consultancy Limited
SMP	Standard Methods and Procedures
SOP	Standard Operating Procedure
SPS	Sanitary and Phytosanitary
STDF	Trade and Standards Development Facility (WTO)
SUA	Sokoine University of Agriculture
TADS	Transboundary Animal Diseases
TAHA	Tanzania Horticultural Association
TARI	Tanzania Agricultural Research Institute
TASTA	Tanzania Seed Trade Association
TBS	Tanzania Bureau of Standards
TIRDO	Tanzania Industrial Research and Development Organization
TMEA	Trademark East Africa
TPPHA	Tanzania Pesticides and Plant Health Authority
TPRI	Tropical Pesticides Research Institute
TRASE	Trade of Agriculture Safely and Efficiently in East Africa
TVLA	Tanzania Veterinary Laboratory Agency
UFL	Uganda Fisheries Laboratory
UIRI	Uganda Industrial Research Institute
UNBS	Uganda National Bureau of Standards
USA	United States of America
USAID	US Agency for International Development
USDA	United States Department of Agriculture
VTPA	Voluntary Third-party Assurance
WTO	World Trade Organization

Driving the best practices in SPS related testing and inspection

Photo by Land O'Lakes

Photo by Land O'Lakes

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About TRASE

The East African Community (EAC) represents one of the fastest growing regional economic communities in the world. And yet, trade of agricultural products from and within this region has been hindered by Sanitary and Phytosanitary (SPS) issues. The EAC Secretariat has recently taken important steps to create common SPS standards that are harmonized among Partner States. These harmonized standards are commonly referred to as the EAC SPS Legal Framework (ESLF). The USDA-supported Trade of Agriculture Safely and Efficiently in East Africa (TRASE) project will build from these successes and work at regional and national levels to:

- Expand trade of agricultural products domestically, regionally and internationally in the EAC by domesticating the EAC SPS Legal Framework (ESLF), a series of regulations, standard operating procedures and measures, at national levels.
- Drive best practices in SPS related testing and inspection. The TRASE project will establish a network of laboratories as regional models with improved competencies capable of establishing equivalence of analytical data. TRASE will also work with identified Competent Authorities to strengthen pest and disease surveillance, notification and overall transparency at the regional and domestic levels.
- Strengthen regional and national SPS committees to coordinate and communicate with the private sector and partner states to reduce trade barriers, increase transparency and raise SPS awareness.
- Increase producer and consumer awareness on the importance of safe food and the harmful effects of low quality and/or counterfeit inputs on public health and trade, which will drive demand for safer products and increase political will to support and enforce SPS standards.

Venture37 estimates that this work over a five-year period will result in an increase of US $250 million in regional and international agricultural sales and further drive regional integration of the EAC.

Executive Summary

The key to increasing regional and international market access is to establish sound and functional Sanitary and Phytosanitary (SPS) management systems, ensuring free but safe trade, and building confidence in a country's exports

The East African Community (EAC) is one of Africa's most integrated regional blocs and represents one of the fastest growing regional economic communities in the world. Trade of agricultural products from and within this region is however, limited by Sanitary and Phytosanitary (SPS) issues and weaknesses in EAC SPS Legal and Regulatory frameworks.

The EAC Secretariat has done important work to create harmonized SPS standards that are commonly referred to as the EAC SPS Legal Framework (ESLF). While the EAC SPS Legal Framework has not been fully ratified, some EAC regulations have been adopted by the Council of Ministers as harmonized SPS measures including: (i) phytosanitary measures, (ii) Pest Risk Analysis (PRA) guides for maize, rice and beans, (iii) food safety measures, and (iv) animal health measures, of which approximately 80% of the work is complete. The United States Department of Agriculture (USDA) supported the Trade of Agriculture Safely and Efficiently in East Africa (TRASE) project, implemented by Land O'Lakes Venture 37 (Venture37), for five-years to build on these successes, expanding the trade of agricultural products domestically, regionally and internationally in the EAC by domesticating the ESLF and building the capacity of key public and private institutions to ease SPS barriers to trade.

The key to increasing regional and international market access is to establish sound and functional Sanitary and Phytosanitary (SPS) management systems, ensuring free but safe trade, and building confidence in a country's exports. Venture37, through the TRASE project, commissioned a comprehensive technical and legal assessment performed by CAB International (CABI) and KO Associates LLP (KOA). The assessment sought to identify SPS legal and technical constraints to intra-regional trade in the public and private sectors of the selected Partner States (PS) of Burundi, Kenya, Rwanda, Tanzania, and Uganda. The assessment also looked to determine investment opportunities and build out recommended interventions that can be supported under the TRASE project to strengthen institutional capacities and ease non-tariff barriers affecting EAC intra-regional trade.

A national SPS system does not exist as a single physical or legal entity but should be built on 'shared responsibility' in cooperation, investment, and actions by all public and private stakeholders, including the broader community. National SPS Systems are organized into the three distinct functional areas of animal health, food safety and plant health, as required under the World Trade Organization Agreement on the Application of Sanitary and Phytosanitary Measures (WTO SPS Agreement) and the relevant International Standard Setting Organizations (ISSOs). These SPS functions are mandated at the national level by a large body of laws, regulations, and institutions.

Several trade constraints arising from these SPS controls in the EAC partner states are highlighted in this report and include duplication and overlaps in regulatory functions which increase the cost of trade, poor notification by

partner states when they update laws or introduce new regulatory rules as evidenced by the low utilization of the tripartite web-based reporting mechanism, poor adoption of EAC Standards in domestic SPS controls, and poor use of Equivalence and Mutual Recognition Agreements/Arrangements (MRAs).

A high-level technical assessment of the national SPS systems of Burundi, Kenya, Rwanda, Tanzania and Uganda was conducted using a trade lens and focusing on trade flows that were prioritized based on literature research, recent trade data, and reports from applying the "Prioritizing SPS Investments for Market Access (P-IMA)" framework in EAC countries. Selected trade flows for this assessment include: horticulture, grains (including cereals, pulses and nuts), seeds (maize, soybean, wheat, sorghum, millet), coffee and tea, animal feed, honey and honey products, milk and dairy products, poultry and poultry products, live cattle and beef, and fish and fish products

SPS systems were then assessed in terms of their capacity and performance in providing conformity assessment services (e.g., inspection, testing, and certification), and how well the assessment procedures are supported and integrated with the other technical SPS functions of risk assessment, early warnings, and rapid response activities. Comments, shared experiences, and insights gathered during virtual interviews with private and public sector stakeholders in the priority value chains were critical in assessing the performance of the current SPS systems, identifying the real challenges to trade, and recommending SPS interventions that will address the gaps and constraints identified in the priority trade flows. Although capacities differ from country to country, certain SPS constraints were found to be more prevalent in specific trade flows

Transboundary animal diseases such as foot and mouth disease (FMD) and the weak identification and traceability of animals are major challenges in beef and most other livestock trade flows. These challenges are exacerbated by a lack of SPS coordination and weak diagnostic, surveillance, and conformity assessment capacities in national animal health systems. Weak border controls and porous borders allow informal trade to thrive, attracting punitive measures from neighboring animal health authorities due to risks of animal diseases.

The development of Livestock Identification and Traceability System (LITS) and improvement of current livestock surveillance systems are recommended.

The presence of veterinary drug residues in beef, dioxins in eggs and poultry meat, and aflatoxins in milk, to name a few, also limit partner states' access to regional and international markets. The presence of mycotoxins, and particularly aflatoxin, are a major SPS constraint for many intra-regional trade flows including milk, animal feed, pulses, nuts, cereals, and grains. Similarly, pesticide residues are of concern for horticulture, grains, cereals, pulses, nuts, coffee, tea, and fish and fish products. Chemical residue monitoring plans and early warning systems for potential food contaminants should be developed, and where they do exist (e.g., fish and fish products to the EU), be expanded to also cover other high-risk products.

The lack of transparency on country pest status and mitigation measures has affected the flow of horticulture products. Similarly, the flow of grains, cereals and nuts is occasionally disrupted by high aflatoxin prevalence. Inadequate laboratory services translate into high trading costs, as traders incur repeat tests and conformity assessment checks.

A general lack of market information regarding SPS requirements for the different export markets, causes frequent delays during cross-border clearance. This is exacerbated by the limited number of trained technical staff and equipment, tools, and technologies used in inspection and certification. EAC SPS authorities lack standard procedures and policies to ensure consistent and harmonized services in many of the operational areas of the national conformity assessment system, as well as training of staff to improve competency levels. The technical assessment recommends certain systemic interventions including training, developing, and improving data management systems, improving SPS coordination for conformity assessment, and prioritizing the mobilization of technical resources. For instance, using risk-based conformity assessments through profiling high-risk commodities for targeted border inspections. This strategy could be used to alleviate some of the pressure that understaffed and underequipped SPS systems are currently experiencing.

A detailed description of the regional SPS laboratory capacity in terms of overall adequacy, credibility, and sustainability, as well as the prevailing gaps and challenges to provide credible testing services, that is accessible to traders/exporters and SPS competent authorities is described in the respective Country Reports. The regional technical laboratories were assessed to identify possible areas of collaboration and recommend interventions to strengthen SPS laboratory capacity at the regional level.

Key recommendations include developing a regional database of SPS laboratories, strengthening national laboratory networks through ICT platforms, supporting the development and implementation of regional proficiency testing schemes (PTs), and training laboratory analysts to implement international standards and improve diagnostic capacities.

The levels of achievement in terms of SPS coordination and the national mechanisms that drive coordination and transparency, including stakeholder awareness, were also assessed. Advocacy and support for the inclusion of the private sector in the development of national SPS agendas are important for the strengthening of National SPS Committees.

The report additionally recommends strategies to improve private sector participation in the formulation and enforcement of SPS measures. TRASE could partner with research and regional trade organisations such as the International Centre of Insect Physiology and Ecology (ICIPE), Kenya Plant Health Inspectorate Service (KEPHIS) Centre for Phytosanitary Excellence (COPE), Eastern African Grain Council (EAGC) to undertake regional awareness programs on EAC SPS measures - especially those including control of aflatoxins, or even facilitate border information workshops for small-scale cross border traders.

Photo by Daniel Banda/COMESA

SECTION 1

Project Background

Photo by Daniel Banda/COMESA

Background

By investing to address systemic gaps and capacity challenges, national SPS systems will be strengthened to facilitate and grow safe intra-regional trade and market access opportunities to international markets

As mentioned, the East African Community (EAC) represents one of the fastest growing regional economic communities in the world, but the trade of agricultural products from and within this region has been hindered by Sanitary and Phytosanitary (SPS) barriers to trade. The absence of robust SPS systems exposes countries to the risks of introduction and spread of animal and plant pests and diseases, as well as food safety threats such as pesticide residues and biological toxins. This results in interceptions due to non-compliance to SPS measures by trade partners and threatens market access to regional and other international high-value markets. Informal cross-border trade that includes important commercial value chains such as livestock, fruits and vegetables, and food crops in the EAC, further exacerbates SPS related risk to agricultural activity and livelihoods.

Adopting a systematic approach to determining and planning for national SPS risks, and developing functioning, well-resourced, and transparent national SPS systems is therefore needed to ensure SPS compliance. It is considered a necessary and integral part of any agricultural value chain investment strategy. By investing to address systemic gaps and capacity challenges, national SPS systems will be strengthened to facilitate and grow safe intra-regional trade and market access opportunities to international markets.

Domestication and implementation of harmonized regional and international SPS measures is critical as it eliminates unnecessary certification, burdensome and lengthy procedures, discrimination between trade partners, and provides a level of predictability to industry that would help to promote trade among EAC partner states. EAC partner states within the TRASE project are members of the World Trade Organization (WTO) and signatories to the WTO SPS agreement. They are all members of the Office International des Epizooties (OIE); the Codex Alimentarius Commission (CAC), and the International Plant Protection Convention (IPPC).

Regionally, EAC partner states are members of the African Union Commission (AUC) and several Regional Economic Communities (RECs), including the Common Market for Eastern and Southern Africa (COMESA), the East African Community (EAC), the Southern Africa Development Community (SADC), and the Inter-Governmental Authority on Development (IGAD). More information on specific regional commitments for each EAC partner state is provided in the respective country reports.

The AUC Department of Rural Economy and Agriculture (DREA) promotes agricultural development and contributes to economic development in Africa by promoting SPS measures along agricultural value chains as part of the Comprehensive Africa Agriculture Development Programme (CAADP) to improve rural infrastructure and trade-related capacities for improved market access. Animal and plant health issues are the responsibility of AUC's technical offices, the African Union Inter-African Bureau for Animal Resources (AU-IBAR), and the African Union Inter-African Phytosanitary Council (AU-IAPSC). The AUC is still in the process of establishing the African Union Food Safety Authority (AU-FSA) but DREA encourages efforts to improve food safety in Africa through inspections of food production establishments using a harmonized approach.

At the EAC level, the regional SPS protocol has been developed, which once ratified by all partner states, is expected to provide a blueprint on which national SPS legislation should be harmonized. The EAC SPS Protocol was developed in line with Article 108 of the EAC Treaty, which requires EAC partner states to harmonize SPS Measures for pest and disease control.

As a part of the SPS Protocol, the EAC has developed and adopted four volumes of SPS measures a) Phytosanitary Measures (Volume I), b) Animal Health Measures for Mammals, Birds and Bees (Volume II), c) Animal Health Measures for Fish and Fishery Products (Volume III), and d) Food Safety Measures (Volume IV).

The content and procedures set by each of the four volumes are separately outlined in more detail in the country reports. Partners states participate in various EAC programs and projects to develop SPS capacity and harmonize with EAC standards. To date, Tanzania is the only partner state yet to ratify the EAC Protocol.

The USDA supported Trade of Agriculture Safely and Efficiently in East Africa (TRASE) project, implemented by Land O'Lakes Venture37, will build from existing successes and work at regional and national levels to:

- Support domestication and implementation of the harmonized SPS measures to promote trade among EAC partner states. Through strengthening best practices in the implementation and enforcement of SPS measures for specific export and import trade flows, and reducing SPS regulatory differences between exporting and importing countries, TRASE will expand trade flows within the EAC and strengthen the EAC as a regional trade bloc. TRASE will strategically align regional import and export opportunities that are constrained by SPS issues and address gaps in the legal and regulatory frameworks and SPS systems. TRASE will support private sector ownership of and compliance with the EAC measures.
- Drive best practices in SPS functions such as testing, inspection, and enforcement. The TRASE project aims to strengthen a network of laboratories to provide credible testing and certification services, as well as SPS regulatory functions such as pest and disease surveillance, notifications, early warning, preparedness and emergency response, and overall transparency at the regional and domestic levels.
- Strengthen regional and national SPS committees to coordinate and communicate with the private sector and partner states to reduce trade barriers, increase transparency, and raise SPS awareness.
- Increase producer and consumer awareness on the importance of safe food, and the harmful effects of low quality and/or counterfeit inputs on public health and trade, which will drive demand for safer products and increase political will to support and enforce SPS standards.

CAB International (CABI) and KO Associates LLP (KOA) were contracted by Land O'Lakes Venture37 to conduct a comprehensive technical and legal SPS assessment in the EAC. This assessment is intended to inform the prioritization of TRASE activities in partnership with selected EAC partner states including Burundi, Kenya, Rwanda, Tanzania, and Uganda, the USDA, and other stakeholders.

In addition to assessing the SPS systems and coordination mechanisms to determine where TRASE interventions may be considered, the assessment includes a review of projects and initiatives relevant to SPS undertaken by governments and partners in each target of the selected EAC partner states.

Investments from donors, development partners, International Standard Setting Bodies (ISSBs), EAC, and COMESA, who are more likely to influence change and trade facilitation initiatives at the borders and behind borders (for both formal and informal cross border trade), are considered. SPS training initiatives and resources that TRASE could tap into are also included. It is recommended that public private sector partnerships for capacity building projects aimed at specific priority value chains should be encouraged.

Investments from donors, development partners, International Standard Setting Bodies (ISSBs), Trademark East Africa (TMEA), EAC, and COMESA should be leveraged by governments and private sector to influence change and facilitate trade across borders and behind borders (for both formal and informal cross border trade)

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SECTION 2

Priority Trade Flows and SPS Constraints

Photo by Land O'Lakes

SPS non-compliances in intra-regional trade are rarely shared or reported to the EAC Secretariat, but interception data on exports to the European Union (EU) highlights typical examples of food safety and plant health challenges EAC countries face

Agricultural products in international trade are sensitive to particular SPS issues based on the nature of the product and the health risk that it may pose. It was therefore important to determine the priority trade-flows for the selected EAC partner states to be able to identify priority SPS challenges and develop recommendations for TRASE interventions to improve EAC intra-regional trade.

In the first phase of this assessment, a literature review identified the priority agricultural trade flows in the EAC based on evidence from trade statistics, considering mostly values of trade but also volume data, where available. The priority trade categories were based on the United Nations (UN) Comtrade (2020) and International Trade Centre (ITC, 2020) databases and were selected based on their source - either from animals or animal-based products, plants, or plant-based products, or from fresh/processed food products of animal or plant origin. The following trade volumes were recorded for the EAC Partner States' priority trade flows:

- Burundi's regional priority export trade flows in 2018 included coffee (US$ 5,335,000) to Kenya and Uganda; residue materials for fodder production (US$346,000) to Kenya; avocado (US$ 385,000) to Tanzania; maize grain (US$197,000) to Uganda; malt (US$183,000) to Rwanda and Kenya; and molasses (US$ 138,000) to Rwanda and Uganda. A general reduction in the value of total regional exports was recorded from US$ 8 million in 2017 to US$ 7.5 million in 2018.
- Kenya's regional priority export trade flows in 2018 included animal and vegetable fat (US$81,353,515) to Tanzania, Uganda, and Rwanda; sugar (US$ 32,047,908) to Uganda, Rwanda, Tanzania, and Burundi; grains, cereals and pulses (US$20,692,998) to Tanzania, and Uganda; horticultural products (US$3,341,259) to Tanzania and Uganda; animal feed (US$4,454,000) to Tanzania and Uganda; and live cattle and bovine meat (US$53,613) to Tanzania and Uganda. The value of total agri-food exports from Kenya to the EAC Partner States decreased from US$ 302 million in 2017 to US$ 299 million in 2018.
- Rwanda's regional priority trade flows in 2018 included fodder for animal feed (US$15,451,000) to Kenya and Tanzania; fresh and dried pulses (US$ 14,214,000) to Uganda and Burundi; horticultural products (US$5,581,000) to Uganda and Burundi; milk and dairy products (US$ 3,208,000) to Kenya and Uganda; and poultry and eggs (US$6,000) to Kenya. The total value for the agricultural products exported from Rwanda to the EAC region increased from US$ 54 million in 2017 to US$ 62 million in 2018.
- Tanzania's regional priority trade flows in 2018 included grains, cereals and pulses (US$54,916,000) to Kenya and Uganda; tea (US$18,284,000) to Burundi and Kenya; fodder for animal feed (US$ 13,119,000) to Burundi and Kenya; live cattle and small ruminants (US$ 7,582,000) to Burundi and Kenya; and fish and fish products (US$ 3,923,000) to Burundi and Kenya; and horticultural products (US$1,558,000) to Burundi and Kenya.


Photo by Land O'Lakes


Photo by Land O'Lakes

The country's general agricultural export trade value increased from US$ 246 million in 2017 to US$ 331 million in 2018

- Uganda's regional priority trade flows in 2018 included grains, cereals and pulses (US$171,751,000) to Kenya and Tanzania; tea (US$ 85,889,000) to Kenya; fodder for animal feed (US$ 80,666,000) to Burundi, Kenya and Tanzania; milk and dairy products (US$ 65,599,000) to Kenya; horticultural products (US$ 12,075,000) to Kenya; sugar (US$ 38,971,000) to Kenya and Tanzania; and fish (US$ 2,814,000) to Kenya and Tanzania. The total agricultural trade value of exports to the EAC region increased from US$ 571 million in 2017 and US$ 643 million in 2018.

SPS non-compliances in intra-regional trade are rarely shared or reported to the EAC Secretariat, but interception data on exports to the European Union (EU) highlights typical examples of food safety and plant health challenges EAC countries face. The EU Rapid Alert System for Food and Feed portal (RASFF) lists food safety non-compliances from Uganda in 2019 at thirty-two (32), mainly for Salmonella on sesame seeds and high pesticide residue levels on fruits and vegetables. Exported fruits and vegetables from Kenya were intercepted due to high pesticide residue levels and fish meat exports from Tanzania for Salmonella and histologic lesions in frozen Nile perch fillets (EFSA, 2020).

Plant health interceptions records from EUROPHYT in 2018, include eighty-nine (89) interceptions from Kenya, Uganda with eighty-nine (89) as well, Rwanda at eight (8), Tanzania at fifty-one (51) and Burundi receiving one (1). These non-compliances were mainly due to False Codling Moth (Thaumatotibia leucotreta), fruit flies (Bactrocera dorsalis), and African cotton leafworm (Spodoptera littoralis) detections. In addition, poor documentation and lack of phytosanitary certification were significantly high in 2018 with Kenya having one hundred and fifteen (115) interceptions, Tanzania twenty-six (26), Uganda fifty-nine (59), Burundi eight (8) and Rwanda three (3) (EPPO, 2020).

Animal products and live animals (e.g., cattle, sheep, goats) are priority value chains for the EAC intra-regionally, but highly sensitive to SPS regulations, as they present pathways for the transmission of economically important animal diseases such as Foot and Mouth Disease (FMD), Bovine Brucellosis, African Swine Fever, Avian Influenza, New Castle Disease, Pestes des Petit Ruminants, and highly zoonotic diseases such as Anthrax and Rift Valley Fever. Uganda reported its first-ever outbreak of the deadly Avian Influenza (HPAI) H5N8 in 2017, following massive deaths of migratory birds at Lutembe beach and later in ducks and chicken in Masaka District (FAO, 2017). Following this outbreak, Kenya and Rwanda immediately suspended all chicken imports from Uganda (The East African, 2017). In 2018, Tanzania culled and incinerated 5,000 one-day old chicks that were imported from Kenya without proper documentation and veterinary checks to prevent the possible spread of bird flu. A further 6,400 one-day-old chicks were later culled at the same border post resulting in a chicken shortage in Tanzania with rising retail prices, months after banning the importation of poultry from its neighbours in the East African Community.

The review also considered published data on SPS constraints and inadequacies in SPS risk management systems for priority trade flows from the Trademark East Africa (TMEA)/WTO Standards and Trade Development Facility (STDF) led workshop and the COMESA PIMA


Photo by Land O'Lakes

analysis, that were obtained from applying the STDF's "Prioritizing SPS Investments for Market Access (P-IMA)" framework.

The P-IMA data/evidence and other literature were used in the assessment to prioritize trade flows and to determine where information gaps exist regarding certain SPS constraints linked to these priority trade flows.

The second phase of the assessment focused on collecting data from various private and public sector stakeholders to describe the SPS system of each partner state and to determine the SPS challenges and gaps that exist in the priority trade flows and identified in terms of their importance (trade value) and sensitivity to SPS issues. Detailed descriptions of the various systems in each country are provided in the country reports. A summary of key SPS constraints and challenges in the priority trade flows of the EAC PSs are provided in this report, with more detail based on stakeholder inputs.

A. Horticulture

Typical SPS constraints identified in horticultural trade flows within and from within and outside the EAC, include poor access to market information, a lack of understanding and interpretation of the SPS standards and regulations, effective pest and disease management, lack of surveillance data, and the presence of chemical residues and heavy metals.

For instance, exporters need sufficient time to prepare and adjust when export market requirements change. It is therefore crucial that any changes in SPS market requirements be communicated promptly to prevent interceptions and maintain market access. For example, repeated interceptions of False Codling Moth (FCM) on Kenya's rose exports to the European Union (EU), prompted the EU to increase its levels of inspections on these imports from Kenya. Fruits and vegetables, cut flowers, and plants for planting from Uganda have been threatened by persistent non-compliance to EU requirements for pest presence as well as high levels of pesticide residues. Exports to the EU for some commodities such as curry leaves (Murraya spp) from Uganda have been banned because of repeat pest interceptions.

The effective pest and disease management for exports, and subsequent compliance to SPS measures, relies not only on a system's conformity assessment capacities but also on its pest data. National surveillance activities and diagnostic/testing capabilities not only support risk analysis and provide scientific evidence to support mitigation proposals for exports, but also provide critical information for early warning systems and managing SPS risks on imports. The development of pest free areas (and production sites, places of production) is fundamental to the development of systems approaches to manage quarantine pests' risks. Horticultural value chains especially make use of this option during market access negotiations to seek equivalence where once mitigation options (e.g., post-harvest treatment) cannot provide an appropriate level of protection.

Finally, microbiological contaminants such as Escherichia coli, Salmonella, Listeria monocytogenes, pesticide residues, and the presence of heavy metals of which the impact is exacerbated by the lack of certified laboratories to test for these chemical contaminants, are major constraints to horticultural value chains in the EAC. Further, more specific, country details are outlined below.

Rwanda

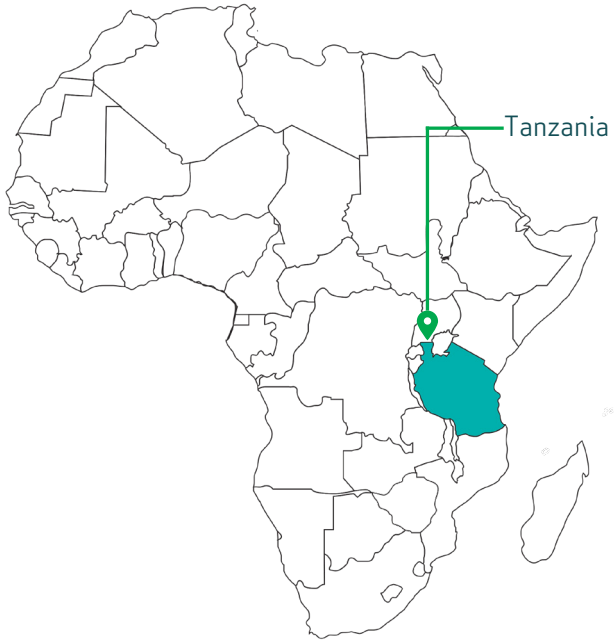
Rwanda has no documented system, including Standard Operating procedures (SOPs), manuals etc. for the establishment and maintenance of pest free areas/pest free places of production or pest free production sites, inhibiting market access opportunities for horticultural value chains that are affected by FCM (Thaumatotibia leucotreta), Helicoverpa sp. and Thrips spp. Although Rwanda has a published regulated plant pest list, the list for fruits, beans, and cassava was compiled based on desk research and is not supported by survey data. The National Plant Protection Organization (NPPO) has an official survey plan for regular (annual) surveys of cassava, banana, potatoes and sweet potatoes. The pest surveillance in the 2018/19 fiscal year included national surveys that were conducted on export horticulture crops namely, flowers, chilies, French beans, broccoli, and avocados.

In addition, some market surveillance is conducted by collecting samples of plants and plant products at Rwandan markets as well as from imported plants and plant products in order to verify the compliance status. However, the NPPO lacks a national plant pest surveillance policy and strategy to guide surveillance. The NPPO has no central ICT system to maintain accurate records derived from general and/or specific surveillance activities to support regionalization and market access.

Horticulture, especially floriculture, has shown the potential to provide Rwanda with a unique opportunity to increase its Foreign Direct Investment (FDI). Horticulture export revenues increased from US $5M in 2005 to US $27.1M in 2018-19 with a target of reaching US $130M by 2024. These crops are increasingly becoming export-oriented value chains that are more organized and are providing more secure and attractive market opportunities for farmers. Although fresh produce exporters indicated that they normally do not have many challenges with export inspections and certification, sampling procedures are not standard and may not be following international guidelines. Risk-based inspections are proposed to improve the efficiency of limited resources of the newly established Rwanda Inspectorate, Competition and Consumer Protection Authority (RICA).

Tanzania

Tanzania has no pest survey documentation available to support its national quarantine pest list. Plant pests that have either never been intercepted or notified based on any Tanzanian export commodities, or never referred to as being present in Tanzania in scientific literature, are considered "absent". The EU has for example, intercepted leaf miner (Liriomyza spp.) and False Codling Moth (Thaumatotibia leucotreta) upon arrival in the EU when the status of these pests was declared absent by the National Plant Protection Organisation (NPPO). A compliance issue that may lead to market closure.



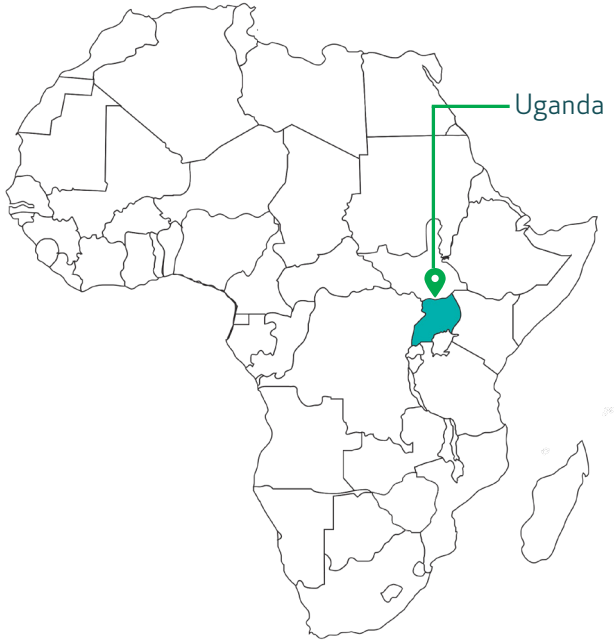
Tanzania also does not have the capacity, resources, or systems in place to secure the recognition, establishment, and maintenance of pest free areas and appropriate buffer zones for fruit flies in avocado, mango, and passion fruit production areas, or for FCM in Capsicum spp. production sites. Shortcomings in pest surveillance for important quarantine pests (e.g., fruit flies in horticultural export value chains) and lack of a national pest monitoring system are key constraints. Specific surveys that are selected are prioritized based only on urgent trade challenges. Research-led pest survey activities were conducted in collaboration with international donor agencies over the period 2009-2011 for certain Tanzanian horticultural value chains of national strategic importance (beans, peas, onions, tomato, banana, mango, orange, passion fruit and roses), but are not representative of the entire territory of the country.

In Tanzania, the weakness in the traceability of products including the lack of appropriate crisis management systems such as product recall, was raised as a major industry concern. The Tanzania Horticultural Association (TAHA) raised a specific concern about variations in the cost of certification, testing, and inspection practices used by EAC and SADC trade partners.

The obligation to share information with the public, private sector stakeholders, other NPPOs, and regional bodies is not always complied within a timely manner by National Plant Protection Organisations (NPPOs). TAHA maintains close links with its NPPO about information relevant to improving exports and then uses a mobile telephone application platform to disseminate this information to its members. Standard operating procedures (SOPs) for exports (e.g., inspection of legumes and cashew nuts to India, and avocado to the United States) and guidelines for Third Party Accreditation (developing a system for accredited assignees) have been proposed by industry in Tanzania as possible interventions to support exports through knowledge transfer.

Uganda

Uganda has limited capacity to implement surveillance and pest reporting due to the limited scope of its NPPO operations. Pest listing and import risk analysis is limited to data mining, and surveillance systems are limited to high-risk crops such as Capsicum spp, Rosa, Solanum melongena for pests such as FCM (Thaumatotibia leucotreta). Early detection and rapid response strategies as well as surveillance guidelines based on International Standard for Phytosanitary Measures (ISPM) No 6 are required.

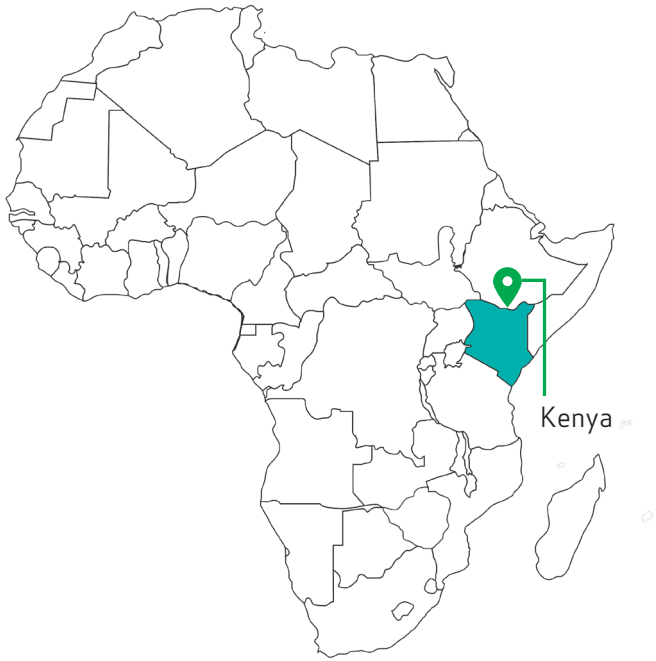


Uganda lacks a food traceability system to facilitate the tracing of the horticultural products to the processing establishments, pack houses, and farmers in real time. The Department of Crop Protection also lacks an e-certification system to support the inspection, traceability, and certification process, as well as enhancing data storage, analysis, retrieval, and sharing. The Competent Authority (CA) for food safety has not established and implemented a National Chemicals Residue Monitoring and Control Programme to identify potential food hazards in the horticultural products, identifying the origin of the hazards and establishment of control measures.

As such, most of the fresh produce produced by applying pesticides and other chemicals and destined for local and export markets may contain high levels of pesticide residues, beyond the permitted maximum residue levels (MRLs).

Many importers in Uganda have expressed concerns about border delays and the lack of testing facilities. This is partly due to lack of staff at border posts and the requirement that horticultural produce only be cleared through a few border posts. Currently, there are no quarantine facilities for holding any suspicious consignments of horticultural products pending investigations at any border points. As such, no product detentions are carried out, which exposes the country to the potential introduction and spread of food hazards.

Kenya



Kenya has the expertise and national standards or guidelines, that are consistent with the relevant international standards to establish pest free areas, places of production, and pest free production sites for specific pests which are known to occur within the country. The private sector (farmers) are the most responsible for developing these pest free places of production, and production sites through the implementation of pest management strategies, while the Kenya Plant Health Inspectorate Service (KEPHIS) is responsible for auditing, declaring pest free production sites, and ensuring that the target pest exclusion is maintained through monitoring. The Makueni "Komesha" fruit fly programme is one example where public and private sector collaboration towards pest free area status is underway.

However, public private collaborations in general and specific pest surveillance can be strengthened to support market access and national guidelines when the specific roles for all actors, including the NPPO and farmers, are clearly defined. Pest specific guidelines and a robust central database of pest surveillance are required to improve survey data management, and to support the establishment and maintenance of additional pest free areas and pest free production sites for Bactrocera dorsalis (fruit flies), Globodera spp (potato cyst nematode) and Thaumatotibia (Cryptophlebia) leucotreta (FCM) to enable the use of systems approaches for pest risk management in support of the Kenyan mango, potato and avocado trade.

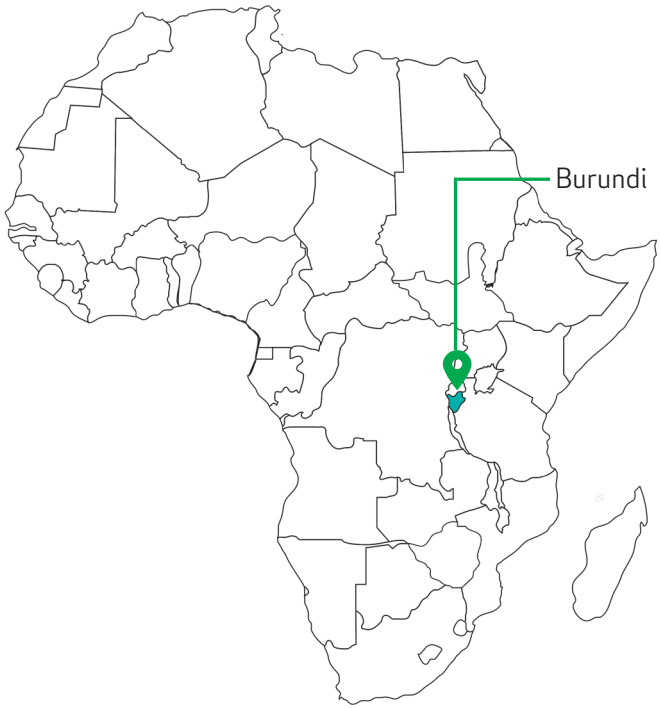
Kenya also uses an integrated pest management system effectively for the importation of bean seed from the United States (US), where Curtobacterium flaccumfaciens pv. flaccumfaciens (bacterial wilt) is known to occur. KEPHIS initially monitored and approved the integrated pest management (IPM) system on farms in the United States where the beans had been planted, inspected the crops during active growth, sampled and conducted laboratory seed (plants as well) tests to confirm freedom from C. flaccumfaciens pv flaccumfaciens. Bean seed imports from the US are only allowed from facilities that have been approved by the US plant health authority in accordance with the bilateral agreement. Similarly, KEPHIS built expertise to evaluate and negotiate integrated risk management import measures proposed by trading partners notably for fruit fly control on avocado fruits to South Africa and Malaysia.

Aspects of food safety are ensured through a production system following attributes of good agricultural practices (GAPs) which are espoused either in the Kenya Bureau of Standards (KEBS) standard KS 1758, part 2 on fruits and vegetables, or in third-party certification systems like Global GAP or Kenya GAP. Such third-party certifications are considered sufficient by trading partners, and so far, no trading partner has requested an official food safety certificate. However, food safety standards are rarely complied with for local and regional markets due to a lack of understanding/knowledge of food safety management standards.

Burundi

In Burundi, the lack of facilities such as laboratories and storage facilities that can maintain cold chains for perishable products limits the participation of rural farmers, especially horticulture farmers, in export and import trading activities. This is coupled with long customs delays and high costs of doing business in the ports of Dar es Salaam (Tanzania) and Mombasa (Kenya), through which Burundi trades. Some estimates put the transport and logistical costs at approximately 40% of the export prices of agricultural products in Burundi.

Export markets are increasingly demanding that suppliers have a traceability system in place, especially for food



products, which can be a major market access constraint for small-scale producers and exporters who often lack advanced technological and record-keeping capacities. Small-scale cross-border traders in the EAC partner states are mostly unaware of plant health issues and GAPs to ensure safe trade for example phytosanitary documentation requirements are a major challenge for small-scale cross border traders of fruits, beans and potatoes. In Burundi, most horticultural cross-border trade has remained informal due in part to small trade volumes, limited access to regulatory information by small-scale traders, and the cumbersome, costly, and time-consuming cross-border official trade procedures (customs and certification procedures notably). Informal imports consist mainly of cassava, banana, and rice from Tanzania, and vegetables from the DRC, while large volumes of fruit such as mango and citrus fruit are informally exported to Rwanda.

High levels of pesticide residues, heavy metals and physical contaminants in fresh fruits and vegetables are a problem for exporters in Burundi.

Due to a lack of mutual recognition and equivalence agreements, the Directorate General of Agriculture does not accept laboratory test results from other countries, nor do major trading partners accept the Directorate General of Agriculture's certification, which requires repeat tests to be done in the exporting and importing country - causing delays and increasing border costs.

Surveillance data to establish potential pest free production sites for quarantine pests such as the Bactrocera dorsalis (fruit fly) is needed for Burundi to develop systems approaches that could provide a range of horticultural crops access to new markets. However, an unorganized fruit and vegetable industry poses a challenge to coordination with already limited surveillance resources.


Photo by Land O'Lakes

B. Grains, Cereals, Pulses, and Nuts

The EAC region has many pests impacting plant health. Under-reporting of pests not only compromises Pest Risk Analysis (PRA) efforts with inaccurate information but also results in an underestimation of the risks associated with the movement of plants and plant products in the region. The East African Phytosanitary Information Committee (EAPIC) is a United States Agency for International Development (USAID) funded project to establish a network of NPPOs across East Africa and build infrastructure for the collection and sharing of data on a plant pests and diseases Information Management System (PIMS).

The project also worked towards the compilation of pest lists for key export commodities and enhancement of capacity to undertake PRAs. EAPIC spearheaded the development of a regional PRA for most traded commodities within the EAC to reduce phytosanitary trade barriers existing in the EAC region through the review of national pest lists and the development of harmonized import conditions that will be applied within the EAC. To date, three harmonised PRAs for maize, beans and rice grains have been developed, reviewed by the private sector, and approved by the EAC Ministerial Council for implementation within the region. Harmonized import conditions were approved for adoption by EAC partner states. Other key areas for further development include PRA pest lists for other grain food crops such as wheat, sorghum, and millet.

The Fall Armyworm (FAW), for example, highlights the existing gaps in plant health systems within the EAC. NPPOs were unable to detect, identify, or intercept the pest at the border or infested fields, and did not have risk management systems in place to adequately respond to its emergence. Producers, most of whom are small-scale, do not have access to appropriate pest management information and tools such as pesticide or biocontrol options, and significant pesticide misuse was recorded resulting in high residue levels in food crops. Even if one country could identify and manage the risks, and bordering countries did not have similar response strategies, the region remains at risk. The failure to manage the introduction and spread of emerging pests such as FAW, which are also important quarantine pests for many international trade partners, poses a barrier to expanding exports to markets such as that of the US.

In addition, with the first detection of Maize Lethal Necrosis Disease (MLND) in the EAC region, a regional rapid response was spearheaded by the International Maize and Wheat Improvement Center (CIMMYT), and involved national agriculture research systems (NARS), NPPOs, and seed sector partners. CIMMYT developed various technical resources by means of a dedicated MLND portal (https://mln.cimmyt.org/) and assisted in the training NPPO staff involved in the MLND survey. In collaboration with the Africa Solidarity Trust Fund (ASTF) and the Australia-Africa Plant Biosecurity Partnership (AAPBP), CIMMYT also supported awareness creation among the agricultural staff and farmers. An effective surveillance and monitoring system was established in MLND-endemic countries (Ethiopia, Kenya, Rwanda, Tanzania &

Uganda). Tanzania, which largely depends on maize as a food crop, acted as a bridge in the MLND spread to countries in southern Africa where maize is a staple food crop because of its geographical position. Tanzania has not had comprehensive MLND surveillance to determine the status of the disease since the inception of the MLND Diagnostics and Management Project in October 2015. A total of 13 MLND surveillance team members were trained at the Plant Health Services offices in Dar es Salaam in February 2017, and a refresher training was undertaken in March 2020. ICIPE, in collaboration with various donors and private sector stakeholders, is involved in various plant health projects and programmes in Tanzania including the development of sustainable management strategies for insect-vectors of MLND in East Africa.

Another key food safety constraint is the control of aflatoxins in grain commodities. Small-scale farmers have no economic incentive to invest in food safety because their margins are small. The EAGC has developed a training program to help them meet this challenge but has limited resources. Exporters are also faced with food safety challenges related to high levels of pesticide residues, heavy metals, and physical contaminants in products like peanuts and maize. For example, at one point processed peanut products exported from Kenya to Rwanda were suspended, and companies asked to recall the products and put in place corrective measures. This followed test results by KEBS confirming the level of aflatoxins above the maximum thresholds.

Between 2016 and 2017, COMESA with support from USAID undertook a series of training workshops on risk-based sampling and grading of maize based on the EAC harmonized standard. Rwanda, Uganda, Kenya, and Tanzania participated in the trainings. The USDA supported the development of a risk-based sampling protocol. The program also supported proficiency testing schemes for aflatoxin testing laboratories, in which root cause analyses were conducted and technical training was provided to build their capacity. Trainings were provided in collaboration with the aflatoxin testing laboratory at the International Livestock Research Institute (ILRI). As a result, a framework for mutual recognition of certificates of analysis was developed. The COMESA Mutual Recognition Framework for maize (C-MRF), if implemented, could help to overcome SPS/TBT related regulatory barriers. This has however not been fully implemented to facilitate regional trade in maize grain.

Equivalence Agreements and Mutual Recognition Agreements with regulatory agencies in other countries are generally lacking in the EAC region, leading to repeat tests and border delays. Adoption of international and Regional (EAC) standards on product quality is not adequate - implementation of regionally harmonized standards must be supported by credible conformity assessment checks and verifications

Finally, comprehensive information on export requirements of emerging markets is not readily available to exporters in the EAC, especially in Uganda, Tanzania, and Rwanda. This poses many challenges for exporting countries, especially for new entrants to the grain sector. There are not enough capacity building efforts to create awareness and understanding of SPS requirements, and to improve compliance of small-scale cross border traders of specifically maize, sorghum, and sesame

Further, more specific, country details are outlined below.

Rwanda: Rwanda pest lists for maize, sorghum and wheat are compiled mainly based on desktop research, so pest status is not supported by pest surveys. The NPPO has however, an official survey plan for regular (annual) surveys of maize and beans. Targeted surveillance programs also exist for some emerging plant pests such as FAW and MLND. The NPPO of Rwanda has an emergency response strategy with action plans for emergency pest outbreaks and maintains a database of high-risk emerging pests. National standards or guidelines for rapid response are yet to be developed.

Awareness and understanding of SPS requirements and risks amongst the private sector, especially small-scale cross-border traders, is limited. Complicated SPS documentation requirements were found to be a major challenge for small scale traders of maize, rice and sorghum in Rwanda. ICIPE, in collaboration with various donors and private sector stakeholders, are involved in various plant health projects and programmes in Rwanda e.g., training, partnerships building, and policy-related discussions to make Push-Pull technology accessible to more farmers. ICIPE is also involved in the development of sustainable management strategies for insect-vectors of MLND in East Africa.

Tanzania: Research-led pest survey activities were conducted in Tanzania in collaboration with international donor agencies between 2009 and 2011 for certain crops of national strategic importance including maize and rice but are not representative of the entire territory of the country. The Ministry of Agriculture, Food Security, and Cooperatives has initiated a Community-Based FAW forecasting project for the control of FAW outbreaks in Hai, Kilosa (in the Morogoro Region) and Moshi districts. There is a legal requirement for anyone identifying a new pest in the country to report it to the NPPO. The private sector plays an important role in scouting for pests. Existing plant health risks are also mitigated, to some extent, by commercially driven internal quality control systems that are applied by producers, but not necessarily verified by the plant health service

Tanzania lacks accredited laboratories for Aflatoxin testing and cannot do rapid tests at the border for moisture content and aflatoxins in grain consignments. Major SPS constraints in the maize and sorghum trade flows include lack of accredited laboratories for testing Fumonisins and Aflatoxins, and lack of harmonized standards for percent moisture content. The cereal flour trade also has issues with high Aflatoxin levels. Consignments of wheat, barley, and sorghum are mostly intercepted due to pest presence and unharmonized percent moisture content issues, whilst pests such as Tribolium spp. are intercepted in consignments of pulses. Limited awareness among farmers/private sector on plant health pest issues, Good Agricultural Practices (GAPs), and safe use of pesticides were also noted in Tanzania. In Tanzania, commercial importers are well informed and can access SPS information easily, but for new entrants to the market and small- and medium-sized enterprises (SMEs), access to the required SPS information is a major constraint - affecting the growth of key sectors like the rice value chain. Most rice in Tanzania is produced by small-holder farmers. Lack of adequate information negatively affects their ability to comply with SPS regulatory requirements and obtain certification for quality and safety. In addition, the industry perceives the application process for plant health import permits, registration, and approval of the importation of seed and fertilizers for the rice value chain development to be very bureaucratic and time-consuming. It is proposed that small-holder farmers should be aggregated into business organizations to share resources and enhance their capacity to comply with SPS and other quality standards.

Uganda: The NPPO of Uganda lacks the capacity to prevent, control, and eradicate pests. As a result, new pest invasions like the FAW, MLND and weeds such as Parthenium sp. have been introduced into Uganda. The weak institutional framework and lack of public-private sector coordination affects the nation's ability to eradicate emerging pests.

A major challenge for Ugandan exporters of cereal grains and derived products is interceptions in the EAC region due to high levels of aflatoxins. In 2018, Uganda lost the opportunity to export 600,000 tons of maize to Kenya worth US $48.6M due to poor quality and aflatoxin contamination. This is supposedly caused by the lack of enforcement of food safety and quality measures as provided for in the EAC grain trade policy, harmonized standards, and SPS measures. Inadequate inspection services and phytosanitary certificates issued without proper sampling and testing is also blamed for the high number of rejections. Furthermore, food that is rejected is not destroyed. Traders buy and process it for consumption. Most traders lack awareness of the standards applicable locally and regionally. This affects the quality and safety of the grain on the market. Exporters are also not notified by market authorities regarding non-compliance and how it can be rectified/avoided

Uganda lacks accredited laboratories for pesticide residue testing and does not have a National Chemicals Residue Monitoring and Control Programme to identify potential food safety risks, their origin, and requisite control measures. As such, most of the products destined for local and export markets potentially contain high levels of pesticide residues beyond levels permitted by the MRLs.

The International Institute of Tropical Agriculture (IITA) and the National Agriculture Research Organisation (NARO) plan to collaborate to finalize the development of Aflasafe which is a safe and effective natural product for the integrated management of aflatoxin in the maize, sorghum, and groundnut value chains in Uganda. Through this initiative, Uganda will join Kenya and Tanzania, who have their country specific Aflasafe products fully registered and commercially available.

Kenya: Official pest surveillance activities in Kenya are guided by ISPM 6 on surveillance and targeted surveillance programs for emerging plant pests include surveys for Maize lethal Necrosis Disease (MLND) and FAW. Kenya however lacks, an emergency response strategy to deal with new pest incursions. No national standards or guidelines for rapid response actions have been developed.

Kenya has no national risk-based monitoring program for grain imports. Products are tested on an ad hoc basis and the development of a risk-based import control program is informed by data from national monitoring/surveillance programs of food consumed by the population. KEPHIS is in the process of developing a monitoring program for food of plant origin but has not rolled it out yet. In the absence of a risk-based control system over imported foods in Kenya, when a pre-clearance for imported food is requested, the decision to detain, inspect, and test imported food upon arrival is made by the relevant competent authority. For example, maize from Brazil will be detained and tested for GMO status following a decision by the Ministry of Health (MoH). Maize and cereals from South Africa were recently detained, inspected, and tested and then rejected for high levels of aflatoxins. A consignment of grains from Malawi was detained for a grading issue but was later accepted.

Burundi: Wheat is an important export trade flow for Burundi and one of the host crops attacked by the FAW. The lack of surveillance and the establishment of FAW pest free production sites for the wheat industry is a constraint for exports. Although awareness regarding pest reporting and emergency response obligations was high among the stakeholders interviewed, the NPPO has not developed any national surveillance standards and action plans for emerging pests.


Photo by Daniel Banda/COMESA

C. Seed (Maize, Soybean, Wheat, Sorghum, Millet)

The lack of confidence between enforcement agencies in different countries in the EAC is due, in part, to the non-domestication of EAC standards, a lack of adequate transparency and notification of measures and procedures, and an ineffective complaint redress system. Regional PRAs are important to support risk-based approaches for sampling and inspection at the border but are still lacking for wheat, sorghum, and millet seed. Seed certification is a lengthy and costly process. The harmonization of seed laws under the COMESA Seed Harmonization Implementation Plan (COMSHIP) was adopted by the COMESA Council of Ministers in 2014 as a strategy to stimulate the seed trade across the region. Rwanda, Burundi, Kenya, and Uganda are among the countries that have aligned their national seed laws and regulations with the COMESA Seed Trade Harmonization Regulations.

Unharmonized seed testing for Maize Lethal Necrosis Diseases (MLND) is one of the most reported challenges by the Africa Seed Traders Association (AFSTA), as it results in repeat tests and subsequent border delays. Other challenges for the grain and seed sectors include unharmonized moisture content for maize, dry beans, wheat, milled rice, millet grains, peas, sorghum, soy beans, split beans, brown rice and other edible seeds of the legume family, and oilseeds such as sesame, sunflower, and soybean. There is also a lack of awareness and inadequate implementation of the IPPC ISPM No 38 on the International Movement of Seed. Seed trade is further hampered by the lack of International Seed Testing Association (ISTA) accredited laboratories or rapid seed test kits for seeds at border posts. A lack of equivalence and mutual recognition agreements means that tests must be repeated, causing border delays and increases trade costs.

Further details specific to Kenya and Uganda are outlined below.

Kenya: In Kenya, traders involved in the import and/or export of seed must register with the KEPHIS Directorate of Seed Certification and Plant Variety protection as seed merchants. A seed Import Permit and Plant Import Permit must first be obtained before any importation of seeds is undertaken. All imported seeds must be accompanied by a phytosanitary certificate and test results from an accredited ISTA laboratory. Seeds of all crops are subjected to laboratory quality tests upon arrival and must meet the gazetted minimum standards before being offered for sale. Similarly, all seed for export must meet the gazetted minimum standards and be accompanied by Kenya's phytosanitary certificate and an export permit. Duplication of Inspection and Certification by KEPHIS and KEBS contributes to the already high costs of the seed certification process. Traders are also burdened with excessive documentation requirements where the same information is required by multiple agencies which cause delays in the clearance of consignments. KEPHIS has announced plans for the digitalisation of the Seed Certification process, and from May 2020 to April 2021, growers and seed crops are being registered and applications for inspections are to be submitted online.


Photo by Martin Namasaka

Kenya has no emergency response strategy for emerging pests such as MLND, and national legislation does not provide for emergency action following the introduction of a quarantine pest. No pest specific national standards or guidelines for rapid responses have been developed to date.

Uganda: In Uganda, the National Seed Certification Service (NSCS) is the regulatory unit and the official focal point mandated to regulate the seed industry. Local seed companies have basic and certified seed production activities on-farm or with seed growers. Major seed selling outlets are facilitated by the government, agro-dealer distribution networks, and non-governmental organizations operating in the region. Registration with NSCS as a seed merchant is required for export, import, or trade within Uganda. The variety to be imported should comply with the minimum field and laboratory standards and should be included on the National Variety List or the East African Common Catalogue. All imported seed is accompanied by an ISTA Orange International Certificate and a Phytosanitary Certificate

Uganda does not have an emergency and rapid response strategy for emerging pests associated with the seed trade e.g., FAW and MLND. NPPO staff are also not trained in surveillance and emergency response measures and a central database does not exist to capture national pest status data.

D. Coffee and Tea

Coffee exports are frequently constrained by SPS issues including pests, lack of monitoring and surveillance for heavy metals, lack of monitoring for Mycotoxins (ochratoxins), and lack of accredited laboratories to test for potato taste defect (PTD) in coffee beans, specifically in Burundi and Rwanda. Important SPS issues for tea exports in the region include lack of monitoring and surveillance, and high pesticide residue levels.

Burundi: Coffee and tea are amongst the priority exports for Burundi. The multiplicity of agencies in the coffee trade including the Burundi Coffee Company (BCC), Office du Café du Burundi and Burundi Coffee Board (OCIBU) has created some regulatory uncertainty, whilst the legal frameworks have not provided clear procedural rules on the application for certification, permits and phytosanitary certificates. Exporters of coffee and tea are mostly faced with food safety challenges concerning pesticides and contamination, and the absence of reliable traceability and differentiation systems limit their access to specialty markets that would increase revenues to the country and the income of traders. "Arbitrary" charges by Kenya for plant import permits for tea destined for auction at Mombasa was also raised as a concern by traders in Burundi.

Surveillance to monitor and delimit pests of concern such as the shield bug Antestiopsis orbitalis guesquierei in coffee plantations, and to establish pest free production sites is needed, but the necessary capacity in terms of manpower, expertise, equipment, operational manuals, and procedures to monitor and conduct site audits are lacking.


Photo by Land O'Lakes

USAID is supporting the coffee, horticulture, and dairy sectors in Burundi through an agribusiness training programme. Activities focus on strengthening trade knowledge and the skills of producers and processors. Technical guidance and support are being provided to enable producer organizations to form commercial cooperatives, and to enhance competitiveness, while producers and entrepreneurs are being provided with knowledge of market standards.

Rwanda: Coffee is a socioeconomically important trade priority for Rwanda because of its exportation value and its ability to provide a substantial source of income to both farmers and the country. However, potato taste defect (PTD) significantly affects Rwandan coffee quality. PTD is caused by the presence of varying forms of bacteria including Enterobacteriaceae and Pantoea, which are responsible for the formation of 2-isopropyl3-methoxypyrazine (IMP) in coffee beans and causing a potato flavor in the coffee.

Assessing the impact of potato taste on the Rwanda coffee export a study by Church (2018) for the Feed the Future Innovation Lab for Food Security Policy, indicates that producers lost 125 RWF/kg of coffee sold, exporters had 43 percent lower profits, and the country missed an estimated USD 2.6M in foreign exchange in 2016 alone. The damage from potato taste defect is estimated at US$.30 - US $2.00 per pound for exported green coffee, depending on the quality level. In the value chain, coffee washing stations play a critical role in coffee quality control and yet, the potato taste defect (PTD was found to be poorly understood and inadequately addressed.

Tanzania: Tea is a high impact sector in Tanzania, with more than 30,000 small-holder farmers collectively producing a third of the country's output. Coffee was rated as the country's third-largest cash crop in 2019. Coffee and tea are regulated by the Tanzania Pesticides and Plant Health Authority (TPPHA) and the Tanzania Coffee Board. However, some overlapping mandates exist between the role of the TPPHA, the Tanzania Coffee Board, the Tanzania Tea Board and Tanzania Bureau of Standards (TBS) in the regulation of the quality of coffee and tea. TBS has not adopted harmonized EAC standards on coffee and tea. Coffee exports to the US must comply with Food Safety Modernization Act (FSMA) legislation enforced by the Food and Drug Administration (FDA), and with the requirements of the Foreign Supplier Verification Program (FSVP) of the FSMA

Uganda: Coordination mechanisms between the Uganda NPPO and Uganda Coffee Development Authority (UCDA) are weak, resulting in duplicated, overlapping, or redundant controls and mandates. In addition, there is a general lack of awareness among traders on SPS requirements. Leading, for example, to a failure by Ugandan tea growers to sustain good quality and subsequently, fetching them a far lower price at the Mombasa Tea Auction compared to other East African counterparts. The Uganda Tea Association maintains that Uganda's tea is a result of poorly plucked tea, the warmer climate, and the lower altitude of tea growing areas in Uganda where pest and diseases are more prevalent. This necessitates the use of pesticides and results in bitterness in the leaf, which in most cases comes from polyphenolic compounds that develop as natural pest control.

E. Animal Feed

Animal feed is an important trade flow for all EAC Partner States. Food ingredients rejected for human consumption such as off-colour and feed grade cereals and grains, are normally utilized for feed production and are often contaminated with mycotoxins that can lead to the sickness and even death of domestic animals. Aflatoxins in poultry feed, for example, have a negative impact on the performance of broilers but may also result in the presence of aflatoxin residues in broiler meat, posing a serious threat to public health.

Various studies reported that compounded animal feeds, specifically poultry feeds, had both high prevalence and concentration levels of aflatoxins and as stated, endanger public health. For example, the 2004 aflatoxin

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poisoning outbreak in Kenya was the largest and most severe outbreak documented worldwide, resulting in 317 case-patients and 125 deaths.

In Uganda, processors test for pesticides, mycotoxins, and chemicals before purchasing grains, cotton, sesame and sunflower cakes, and fishmeal. However, there is no legal requirement to do so, necessitating the development of a national feed policy and legal framework to prescribe feed and feed additive standards. Most of the animal feed trade in Uganda is informal and not subjected to SPS controls, which means that high levels of Aflatoxin can go undetected and flows pose important food safety risks. Animal feed from plant origins may also harbor important pests such as MLND or FAW, threatening plant health and livelihoods. Because of the nature and variety of the potential SPS risks, there are multiple agencies involved in the regulation of animal feed in the region, including the National Veterinary Service (NVS), the NPPO, and the National Food Safety Inspection Services (NFSS) which may include the Ministries of Health and the Bureaus of Standards. While these agencies may appear necessary, without proper coordination and streamlining of roles, they appear to traders as duplicative and reasons for unnecessary high trade costs.

F. Milk and Dairy Products

Although there are EAC harmonized SPS standards for milk and milk products, their implementation has not been fully cascaded down to broader operations. Because of the absence of mutual recognition agreements between EAC partner states and other trading partners, inspections, tests, and other forms of verification are usually duplicated, leading to an increase in regulatory costs, unreasonable border delays, and subsequent safety and quality concerns as milk is affected by the lack of cold chain infrastructure.

Milk and dairy products are regulated by NVS and NFSS. The NVS regulates disease control and monitoring and prescribes vaccinations that will be given to dairy animals. The NFSS regulates the quality of milk and dairy products. National Chemicals and Drugs Residue Monitoring Plans for milk and milk products are lacking, so trade in milk and dairy products are typically affected by SPS constraints such as high levels of Aflatoxins, pesticide residues, and veterinary drugs and chemical residues (antibiotics) in dairy products. The majority of the laboratories performing chemical and drug residue tests prior to export are not accredited, which calls into question the accuracy of certificates of analysis, causing repeat testing in importing countries.

The coordination between the various regulatory authorities is in most cases, inadequate as well, resulting in delays and increasing regulatory costs. This is especially true in Rwanda, where the RICA and the Rwanda Food and Drug Authority (RFDA), which are newly formed organizations, have not fully established procedural rules and practices to guide traders.

High total cell counts and the reconstitution of powdered milk, aflatoxins, antimicrobial drug residues and a lack of laboratory services, are also major constraints. For example, Kenya recently imposed restrictions on Uganda milk exports based on the EAC Rules of Origin and suspicions that Uganda traders are re-exporting reconstituted milk processed with dried milk powder that is imported from third countries outside the EAC.

Finally, stringent SPS requirements enforced by importing trade partner countries and a lack of understanding of the proper interpretation of standards and regulations, are reported to be major constraints to milk exports from Rwanda.

G. Poulty and Poultry Products

Typical SPS constraints in poultry and poultry product trade flows in the EAC include microbiological contaminants such as Salmonella, the presence of dioxin in eggs, poor documentation processes, lack of surveillance systems for poultry diseases including Highly Pathogenic Avian Influenza (H5N1) and a lack of harmonized standards for day old chicks.

Documentation of import permits for day-old chicks is also a challenge, as there are no quarantine facilities or diagnostic laboratories available at, or close to, border posts for animal health disease testing. For example, in 2017, Tanzania intercepted and burnt 6,500 chicks imported from Kenya citing a threat of Highly Pathogenic Avian Influenza (H5N1). More chicks were incinerated in 2018 after the Tanzanian authorities indicated that the Kenyan exporter lacked the correct documents.

Specific country details are outlined below.

Rwanda: In 2017, the government of Rwanda developed a Livestock Master Plan (LMP) to fast track the prioritized transformation of the agricultural sector in a country where intensified livestock production is the system of choice due to limited land size, population pressures, and excellent agro-ecological conditions. The investment was designed to improve productivity and total production in key livestock value chains which include poultry. The Rwanda Agricultural Board (RAB) confirmed that the poultry industry is the fastest growing industry in Rwanda, and by the end of 2019, Rwanda had 15 large commercial poultry farmers keeping between 20,000 and 100,000 layers each, and 108 medium farms with between 5,000 and 20,000 layers. Kenya is the main importer of poultry and poultry products from Rwanda.

Tanzania: Tanzania imports poultry, day old chicks, and eggs from Uganda and Kenya. The process involves multiple competent authorities and each having multiple steps (up to 35 for some e.g., meat), differing clearance times, and costs to be met. Tanzania has installed an electronic single window system at the port of Dar es Salaam, but the system is not available to most other ports of entry/exit. The country has a weak identification and traceability system for both poultry and poultry products, and the Tanzania Veterinary Laboratory Agency is not accredited.

Uganda: Despite concerted efforts over the years, Uganda does not have a legal and/or policy framework on which to anchor disease free zones/compartments for both plants and animals. There are, however, piggeries, hatcheries, and poultry production units that are level four (4) bio-secure and are registered and inspected by the Directorate Veterinary Services (DVS) annually.

Producers and exporters of poultry products in Uganda are faced with high costs of testing and limited test capacity of laboratories, resulting in extended turnaround times for receiving laboratory results. A selective application of SPS laws, regulations, standards, guidelines, and recommendations, has created a situation where major players are being outcompeted by smaller or new non-compliant players


Photo by Land O'Lakes

in the industry. These small-scale traders process poultry meat in their backyards without any food safety measures, yet their products are selling on the same market for the same price as products that do comply with food safety requirements. Awareness and understanding of the importance of food safety measures is low amongst local consumers, so traders who invest in food safety measures do not get returns or see the benefit of compliance, thus affecting their commitment to compliance.

Uganda has developed National Chemicals and Drugs Residue Monitoring Plans for the meat of cattle, sheep, and goats, which are expected to be implemented by the various competent authorities across the country with the help of local governments. Similar residue monitoring plans are to be prepared for poultry and poultry products.

Kenya: In practice there is very little regulatory focus on food safety controls in poultry and poultry products in Kenya. An NVS certificate attesting that the eggs were produced under the supervision of NVS could be potentially misleading because the verification is done in relation to the animal health risks. Associated food safety risks and/or product safety are not verified by the NVS certificate. The presence of high levels of dioxin in free range eggs and microbial contaminants in poultry products are food safety concerns. Increase in the use of antimicrobials in farm animal production is also a food safety concern, as incorrect application of the antimicrobials results in residues in meat and eggs. Reviewing inspection protocols to include food safety is therefore a high priority for Kenya's trade in poultry and poultry products.

In 2016/17, Kenya banned Ugandan poultry and poultry products following an outbreak of highly pathogenic avian influenza (H5N1) in wild birds in Uganda. The ban was lifted following a technical delegation from Kenya confirming that poultry exported to Kenya originates from disease free compartments. A lack of quarantine facilities and diagnostic laboratories at the borders to confirm the disease status of consignments impedes trade. There have been complaints of dumping cheap poultry products from Uganda into Kenya, but the trade controls have not changed, and the export market remains open.

H. Live Cattle and Beef

Between 2012 and 2017, USAID/EA supported the AU-IBAR and the Intergovernmental Authority on Development (IGAD) (Djibouti, Ethiopia, Eritrea, Kenya, Somalia, Sudan, South Sudan and Uganda) to develop a set of minimum standard methods and procedures (SMPs), for surveillance, laboratory testing, and disease control for specific Transboundary Animal Diseases (TADs). Taking into account the unique dynamics of specific diseases they enabled all IGAD countries to use the same harmonized approach, thereby enhancing coordination of national disease control programs and approaches across the IGAD region. IGAD further developed regional guidelines on the livestock Identification and traceability System (LITS), as well as animal health certification. The SMPs and related regional guidelines created a harmonised SPS regulatory approach, particularly in Uganda and Kenya, where they have informed updated legislation and SOPs for inspection and export quarantine.

SPS constraints to the trade of live cattle and beef in the EAC include a lack of capacity in national animal health and food safety systems, lack of effective traceability and harmonized standards for animal movement and trade, poor documentation processes, low production and poor delivery of vaccines, poor monitoring and surveillance systems for key animal diseases, and a lack of cold storage facilities at ports of entry/exit.

The prevalence of various livestock diseases such as Bovine Brucellosis, Foot and Mouth Disease (FMD), Anthrax, Rift Valley Fever (RVF), Lumpy Skin Disease (LSD), and Contagious Bovine Pleuropneumonia (CBPP) have varying impacts on productivity, animal morbidity and mortality, and production costs. Disease surveillance, diagnosis, and control are thus a key concern for traders. Any transboundary/notifiable disease is expected to be reported to AU-IBAR and the OIE, but due to human and financial resource constraints in animal health systems in the EAC region this does not always happen. National contingency plans that can be activated to respond to outbreaks of re-emerging disease (such as RVF) are lacking in the region.

Animals are also often treated without a confirmatory diagnosis as most of the veterinary laboratories in the EAC region are not able to provide timely and reliable diagnostic services. The delays in receiving reports have, with time, discouraged livestock owners from submitting samples for laboratory testing since the turnaround time is often too long for effective disease control on the farm. It is therefore important that veterinary laboratories are improved to serve the livestock industries better and support disease control efforts.

In addition, the presence of veterinary drug residues in beef limits access to prime international markets. Tanzania does not have a national residue monitoring programme for animal products although some testing is performed for selected animal products for export. Although Kenya has no national risk-based residue monitoring program - some products are tested on an ad hoc basis. The Kenyan NVS has developed and rolled out the national pesticides' residue monitoring program for honey, veterinary drugs, and heavy metals and a similar monitoring plan has been developed for meat but has not yet been implemented. Uganda has developed National Chemicals and Drugs Residue Monitoring Plans for meats of cattle, sheep and goats but the Plans are not yet implemented. Because of inadequate official controls, livestock farmers do not observe withdrawal periods for chemical and drugs applied to animals, resulting in contaminated products. Laboratories conducting chemical and drug testing in Uganda are also not accredited to specifically support live cattle and beef exports.

Animal health measures such as effective management of animal movements, livestock quarantine, vaccination, stamping-out, closure of livestock markets, and slaughter bans are perhaps the most effective ways of preventing the spread of diseases within the region and beyond. These measures are however, difficult to enforce due to the pastoral and agro-pastoral production systems practiced widely in EAC partner states, and data from OIE shows that the vaccination coverage for priority animal diseases in the IGAD region is extremely poor. Awareness creation and farmer education on the importance and necessity of the sanitary measures are key elements in promoting compliance.

Informal trade in livestock, although providing food and livelihoods security to many traders, pose sanitary risks to trading partners and denies governments revenue. For example, it negates safe trade, incapacitates SPS systems, and could lead to disputes among trading partners. From the outlook, despite the regional agreements and market reforms which have, to a large extent, minimized exchange controls and commodity movement restrictions especially within the EAC market. Inappropriate policies and other restraints on trade still inhibit formal trade linkages and tend to distort relative prices in the factor/product markets. This encourages all forms of unofficial cross-border trade, to the detriment of food security and faster economic growth. A national animal identification and traceability system would serve to enhance the confidence of trading partners in livestock and livestock products from the EAC, as there would be a trace back system.

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Appropriate policy and legal frameworks are a must for any EAC partner state to develop, establish, operationalize, and maintain a Livestock Identification and Traceability System (LITS. Uganda security forces rolled out a livestock identification system for cattle, sheep and goats to contain cattle rustling in the Karamoja region, but this effort, which was a security necessity, was short lived and not anchored in any legal or policy framework. Since then, there has been support by ICPALD/IGAD to domesticate the regional livestock identification and traceability framework at the national level. However, traceability of foods of animal origin remains a major challenge, emanating from the failure by Food Business Operator (FBOs) to implement a traceability system that begins with accurate record keeping at farm level.

Further, more specific, country details are outlined below.

Rwanda: Beef is a priority export trade flow for Rwanda but informal trade of cattle, especially from the DRC - where the animal health inspection and certification system is very weak, poses a real threat to the growth of the beef industry in the country. The NVS has surveillance or monitoring programs for FMD, Peste des Petits Ruminants (PPR), RVF, LSD, and Black Quarter (BQ). The NVS has a robust and well-coordinated service provision that has ensured Rwanda is Rinderpest free and FMD outbreaks are almost contained (only confined to two sectors bordering Tanzania) where NVS vaccinates animals against RVF, PPR, and FMD. Despite legal provisions allowing for animal identification and certification, there is no active animal identification on either side of the border (Rwanda and Tanzania), and thus it is likely that animals from the two countries will continue to mix and share diseases despite the efforts initiated by the Rwandan NVS.

Tanzania: The NVS In Tanzania conducts testing through the Tanzania Veterinary Laboratory Agency (TVLA) network of laboratories in different parts of the country. The tests conducted usually respond to the health requirements of importing countries (e.g., to demonstrate freedom from specific animal diseases and conditions) and to certify the general health of the animals. As with Kenya, the number of laboratories are few and far between, and often lack testing equipment and reagents, leading to delays and additional costs. Some testing for exports is allowed in foreign countries such as South Africa.

In addition, animal health and food safety competent authorities in Tanzania are not well coordinated and have inadequate capacity considering that Tanzania accounts for approximately 11% of the livestock population in Africa, occupying third place after Ethiopia and Sudan. Livestock in Tanzania includes cattle (28.8M), goats (16.7M), sheep (5M), pigs (2M), and chickens (71.4M). Live animal exports mainly include slaughter cattle, sheep, and goats to various EAC, COMESA, SADC, IGAD Member States as well as the Middle East. Key cross-border markets include Kenya, the DRC, Zambia, Uganda, Rwanda, and Burundi. The country initiated an aggressive campaign to promote the marketing and value addition of animal products, through which, several abattoirs were created. As a result, there is an increase in the trade of red meat from cattle, goats, and sheep as well as hides and skins to different export destinations in Africa, the Middle East and China.

Tanzania also receives substantial imports of live animals and animal products from various markets. Live animals for breeding (including cattle, sheep, goats, horses, dogs, and various types of poultry) are imported from Kenya, South Africa, Europe (e.g., France, Spain, Britain, Netherlands, Belgium and Switzerland), Australia, Brazil, and Argentina, while small numbers of animals for local slaughter may

cross over from Uganda, Rwanda, Mozambique, Malawi, and Zambia. Animal products, such as chilled carcasses, processed meats, and dairy products especially for high end consumers, are imported from Kenya, South Africa, Europe (e.g., Netherlands, Frame, Britain, Austria, Spain, Switzerland, Ireland, Belgium, Portugal and Germany), Australia, Argentine, Brazil, Chile, New Zealand and the US. It is therefore necessary for the NVS to have an effective and formal mechanism to ensure a coordinated approach with the external players, enabling it to play its role effectively and efficiently. Tanzania has installed an electronic single window system at the port of Dar es Salaam which partly address the issue of poor coordination and lengthy border procedures, but the system is not available to the majority of other ports of entry/exit.

Veterinary officials in Tanzania have acknowledged and expressed frustration with neighbouring Kenya, for not enforcing standard export-import controls. Formal exports of live cattle and processed beef to Tanzania must undergo certification by multiple agencies to comply with the stringent measure. From available information collated during stakeholder interviews, it seems that besides informality of the trade, there may also be lack of due diligence in conformity assessments of live animal trade between the two countries. Formalization of animal trade (and trade in animal products and inputs) is essential for the application of official sanitary controls and regulation of trade. It has the benefits of ensuring conformity and reducing the risks (economic, social, biological and health) associated with informal trade for Kenya and other EAC neighbouring countries.

Uganda: In 1997, Uganda restricted the importation of live cattle and beef based on fears and safety concerns that Bovine Spongiform Encephalopathy (BSE), also known as Mad Cow Disease, could spread from Europe to East Africa. Kenyan live cattle and beef exports to Uganda were banned because of a perceived threat of BSE in animal feeds that were imported into Kenya from Europe. Uganda also maintained that Kenyan meat standards and measures were not sufficient to address the risk of mad cow disease Kenya disputed the claims and called them unfair protectionist practices – specifically, non-tariff barriers. The EAC Sectoral Council on Trade, Industry, Finance, and Investment raised the concern early in 2018 that the Ugandan ban on beef from Kenya negated the free trade principles of the EAC treaty. It appointed a task force from the two countries to help resolve the dispute. The task force held a bilateral meeting that resolved to inspect all animal feed entering the country through the Port of Mombasa. The experts who were drawn from the ministries of Livestock of the two countries, after inspection, concluded that the animal feed was safe, and Kenya could resume its beef exports to Uganda. The EAC sectoral council has however indicated that the dispute may require further political goodwill to be resolved. Past attempts to solve the problem through bilateral talks have failed.

Animal diseases, including FMD and RVF, have also become difficult to diagnose and control as the regional laboratory and surveillance teams are poorly funded and poorly equipped, referring producers, traders, and processors to central laboratories in Kampala. A national disease surveillance committee has been established to rationalize and harmonize disease surveillance, control, and prevention within the country under the devolved government, and between Uganda and neighbouring countries.

In Uganda, border verification procedures are fragmented between various agencies, meaning that procedures remain cumbersome and difficult to navigate, translating into high transaction costs for traders and exporters. Weak conformity assessment systems and weak border controls have led to a larger volume of informal trade with neighbouring countries.

In addition, meat (beef) processors in Uganda are challenged to achieve a Quality Mark certification due to several reasons, including the use of unhygienic and non-approved abattoirs. Carcasses purchased from these abattoirs usually fail microbiology tests. This leads to failure in exporting meat products as most international markets require products to be free of contamination. Product certification schemes implemented by Uganda National Bureau of Standards (UNBS) are very costly whereby each product is given a permit that costs USH 800,000 (US$ 220) and expires in one year. In addition, sampling fees and audit fees are too expensive for some SMEs.

Weak official controls by the NFSS have resulted in many unapproved abattoirs that operate under un-controlled and un-hygienic conditions resulting in unhealthy meat and exposing consumers to food safety risks. Therefore, minimum food safety standards for operating abattoirs are required to ensure the safety of meat. Although most of the products traded across borders are supposed to be certified, the NFS still faces challenges of certifying small consignments of animal products carried across the borders due to capacity limitations.

Kenya: Kenya is a livestock rich country with significant populations of beef and dairy cattle, goats, sheep, poultry, camels, and pigs, and has the most developed capacity for the processing of animal products in the EAC region. Kenya exports both live animals as well as processed and semi-processed animal products, but

sanitary certification of animals and animal products is largely inadequate due to document verification. The lack of an effective legal framework for dealing with disease outbreaks and inadequate export quarantine facilities means the quality of Kenyan livestock is compromised and its value is greatly diminished in international markets. Transboundary animal diseases and weak conformity assessments characterized by poor testing capabilities are major constraints to exporting live cattle and beef from Kenya, especially to lucrative markets such as the EU and US that demand high sanitary standards.

In Kenya, live cattle for export are subjected to various tests and inspections and must be accompanied by an International Health Certificate (IHC), International Veterinary Certificate (IVC), an import permit, and laboratory test results that were endorsed by the state veterinary officer at the animals point of departure. Kenya has established some quarantine stations and holding grounds, including official recognition of privately-owned quarantine facilities, to facilitate the mandatory quarantine of animals destined to countries that require pre-shipment quarantine. However, many of the entry/exit points do not have appropriate infrastructure such as crushes, holding grounds and quarantine facilities, equipment for animal handling and inspections, or laboratories for diagnostic testing. In addition, the number of veterinary laboratories are few and in most cases, located far from the ports of entry/exit, leading to delays in veterinary testing for export and resulting in additional trade costs as the samples may need to be transported over long distances.

Kenya imports a substantial variety and volume of live animals and animal products from the EAC region because of its high demand for meat and low prices offered for animals and animal products. Live animals for slaughter are mostly imported from Uganda, Tanzania, Ethiopia, South Sudan, and Somalia. However, many of these imports are informal and undocumented as live animals pass through porous borders, either for trade or for grazing purposes. It is believed that up to 20-25% of animals slaughtered in Nairobi have been informally imported as live animals. The presence of the same communities along the common boundaries e.g. Maasai on the border with Tanzania, Turkana and Karamoja with Uganda, and Borana with Ethiopia makes it difficult for authorities to track animals crossing the borders informally. Informal trade in animals and animal products increases the risk of spreading transboundary animal diseases (TADs) such as Foot and Mouth Disease (FMD). Inability to mitigate FMD continues to depress trade in beef and beef products between EAC countries and export destinations such as the Middle East.

Other important drivers of informal cross-border trade in live animals include pastoral movement of livestock for pasture and water, the movement for trade in border markets and onward transfer to terminal markets, similar communities settled on both sides of the border, unreasonable or extremely stringent measures, the high costs of trading live animals across formal ports of entry/exit - especially for small-scale traders, lack of incentives in the formal trading system, and lack of awareness of how

the formal export/import channels operate. Informal trade avoids regulatory controls, including sanitary certifications, and therefore poses substantial risks to animal health in the receiving countries. To enhance small-scale cross-border trade especially in live animals, it is necessary to invest in better understanding of this trade's scope, the magnitude, and key drivers to guide capacity building of the NVS and the formalization in collaboration with other players.

Burundi: Burundi livestock traders import at least 30% of their slaughter stock from Tanzania and sell meat both locally and to the Democratic Republic of the Congo (DRC). The "arbitrary closure of the formal cross-border livestock trade" by Tanzania over the past two years has adversely affected trade in livestock, meat, and hides and skins, as a shortage of marketable animals has pushed up prices. Livestock traders suggest that NVS should prioritize negotiations with Tanzania to reopen the cross-border livestock trade.

Farm level activities such as breeding, husbandry, and traditional identification of animals are not regulated, authorised, and inspected according to international standards as they are not provided for in existing policies or laws. Ante- and post-mortem inspection with the collection of disease information is undertaken in all slaughter facilities in conformity with international standards only in selected premises (e.g., export premises). Data collected is critical as it is used to inform animal disease control and prevention strategies and continuing education training of field staff on diseases and conditions to look out for. In contrast, ante- and post-mortem inspections in local slaughterhouses is mainly to ensure that the meat being released is fit for human consumption and cess/tax collection with limited epidemiological data being collected.

The Burundi NVS does not have a central database of all exporters/importers of animals and animal products, and lacks regulations on animal identification, traceability systems, and livestock quarantines. Furthermore, inspection and certification services in Burundi are largely limited to animal health issues, do not cover food safety, and not all products are inspected at the border posts due to limited capacity, including human resources. There is also a reported lack of transparency on how inspections are conducted at border posts due to limited technical capacity among inspectors.

Burundi implements both active and passive surveillance programmes for both priority TADs and zoonotic diseases, based on existing information or suspicious cases - including samples sent to regional and national laboratories. The active surveillance programmes are regularly reviewed and updated to ensure they meet country needs and OIE reporting obligations. Despite concerted efforts to implement an effective surveillance program, maintain a database of high-risk emerging diseases, and determine whether a sanitary emergency threat exists, the NVS has not been successful.

Prevailing economic conditions have made it difficult for the government of Burundi to roll out any public private partnerships (PPPs) that would facilitate processors/exporters to access infrastructure and financing necessary for feedlots, quarantines, slaughterhouses, and dairies. This has led to the collapse of most processors/exporters over the past five years.

I. Fish and Fish Products

SPS related challenges in the fish and fish product trad flows in the EAC include the presence of physical and chemical contaminants, heavy metals and veterinary drugs, lack of resources to support the implementation of monitoring plans, and lack of functional warehouses and laboratory facilities.

Further details specific to Tanzania and Uganda are outlined below.

Tanzania: The inspection of exports of fish from Tanzania is guided by border inspection procedures for both imports and exports of fish and aquaculture products and is aligned with the EAC Harmonized Sanitary and Phytosanitary Measures. The country has initiated an aggressive campaign to promote marketing and value addition to animal products and as a result, trade in fish to various export destinations in Africa

Strict technical requirements for testing laboratories and the high cost of laboratory analysis have limited the sampling and testing of aquaculture products, which are currently being performed at levels below those set out in the residue monitoring plans

including the EAC Partner States such as Burundi and Kenya has grown.

The presence of physical contaminants, high residues of pesticides, heavy metals, and veterinary drugs (specific to fish raised via aquaculture) and microbiological contaminants such as Salmonella are typical SPS challenges for fish and fish product value chains in Tanzania. The National Fish Quality Control Laboratory (NFQCL) has implemented a pesticide residue monitoring plan for fish and fisheries products as a requirement to export to the EU. However, there is no other structured residue monitoring program in the country. Testing is limited to research purposes and conformity assessments for exports and locally consumed commodities during market surveillance by competent authorities. Surveillance is not based on risk assessments and there are no documented protocols for preventing residue risks or for responding to breaches of MRLs.

Uganda: Uganda has a risk categorization procedure which is provided in the SOP for Fish Inspection, focusing on microbiological tests and sampling plans for fish and fishery products, and chemical tests for residues and contaminants in fish, water, and lake sediment. Regarding heavy metals, the consignments of fishery products intended for export to the EU are regularly tested (on average once a month), but this frequency can be increased in case there is a Rapid Alert (RASFF) notification from the market authorities. The conformity assessment systems lacks institutionalized risk-based inspections, continuous capacity building on risk analysis for food safety national managers and a food safety risk categorization framework for emerging risks/hazards that is extended to all priority traded agri-food products. There is need to develop SOPs and refine existing SOPs for specific products such as smoked, sun dried, fish sausages and other fish and fishery products such as maw which are traded in local, regional, and other markets such as Asia.

Ugandan fish exporters experience non-compliance with food safety requirements since the unloading, drying, and smoking of fish is done using unsanitary facilities. Uganda has acquired the market in the EU for fishery products of aquaculture origin, however, access to this market is always threatened by lack of technical and financial resources to support the implementation of national chemical and drugs residue monitoring plans for aquaculture products. Strict technical requirements for testing laboratories and the high cost of laboratory analysis have limited the sampling and testing of aquaculture products, which are currently being performed at levels below those set out in the residue monitoring plans. Most staff working in the laboratories are recruited on a temporary basis and as such, there is generally not enough staff to perform the required sampling and analysis. Finally, chemical, microbiological, and sensory fisheries testing laboratories are not in good shape, needing significant repair and renovation to be able to produce credible results.

The inspection of exports of fish is guided by border inspection procedures for both imports and exports of fish and aquaculture products which are aligned with the EAC Harmonized Sanitary and Phytosanitary Measures. However, there are no functional laboratories and cold chain facilities to test products and detain frozen fish products at some of the border points. The inspection services for fish and fisheries rely on URA warehouses for the detention of any suspected products.

SECTION 3

SPS Coordination

Photo by Land O'Lakes

This section provides a brief overview of SPS coordination and the status of national SPS Committees in each of the TRASE partner states as well as recommendations (Table 1) to strengthen and improve SPS coordination across public and private sectors in support of intra-regional trade.

Rwanda: In Rwanda, the National SPS Committee has combined with the National TBT Committee to form a joint SPS/TBT Committee for SPS coordination. The SPS/TBT Committee is not legally established and therefore lacks an enabling legal authority in the execution of its mandate. The committee is a subcommittee under the National Trade Facilitation Committee. SPS/TBT Committee members include representatives (both value chain actors and responsible authorities) from the functional areas of plant health, food safety, and animal health. The SPS/TBT Committee is required to (i) enhance the coordination of SPS matters, and (ii) to meet and discuss Rwanda's position in relation to a notification issued by other member states at the global WTO SPS Committee. The private sector is not integrated as active and permanent members of the national SPS and Standards Committees.

The establishment of the Committee was approved by the Permanent Secretary MINAGRI on January 8th, 2018. The overall objective of the SPS/TBT Committee is to serve as a national focal point and a platform to co-ordinate and address SPS and TBT related matters in the interest of protecting the life and health of humans, animals, and plants. The overarching function of the Committee is to enhance national implementation and utilization of the WTO SPS Agreement and TBT Agreement. Additionally, the National SPS/TBT Committee is tasked with ensuring the coordination of related government institutions and the private sector to ensure protection of Rwanda's interests in international trade.

Rwanda uses the ePing platform for notifications of changes in TBT and SPS measures, which have been notified to the World Trade Organization (WTO). The platform is a free online web service that provides businesses and governments with up to date information on regulations in export markets around the world, including product requirements and standards. The platform has two key functions which allow users to easily track regulations for different products or export markets by registering to receive customised email alerts, or to search manually to analyse existing regulations.

Tanzania: The National SPS Committee in Tanzania was established in August 2009, but has largely been inactive. Beyond the relaunch, the committee has not met to deliberate on any national policy issues. The achievements of the committee's mandate are highly dependent on current leadership and their willingness or personal drive to steer the committee's agenda. TAHA showed interest in providing administrative and financial support to industries.

The committee is responsible for advising Government on policies and regulations concerning SPS matters, monitoring of promulgation and implementation of national SPS measures, and ensuring adoption of international standards and guidelines. The committee is also mandated to improve Tanzania's implementation of the WTO-SPS Agreement, discuss and prepare national

positions to enhance the country's participation in regional and multilateral fora (including the WTO-SPS Committee and the international standard-setting bodies), and make recommendations for technical cooperation relating to the implementation of SPS measures. The committee is comprised of stakeholders from both the public and private sectors. The Committee's TORs are clear and pragmatic, but they do not provide standard guidelines on the proceedings of the committee such as agenda setting, a reporting framework, and decision-making processes. The terms of references for committee officials (including the chairperson, and secretary) and rotation of positions are documented as a maximum of two (2) terms of up to 3 years each. In contrast to the standard practice across the region and continentally, the committee does not have in place a deputy chairperson and no official positions are allocated to the private sector.

The last meeting of the Committee took place in 2016, before the TFDA was dismantled. Since then, the committee has not met with financial resources cited as a major challenge. As noted by TAHA, the private sector is keen to provide financial support and collaborate with the government to revitalize the National SPS Committee. They suggest that the committee could be hosted by the private sector whilst the Chairmanship remains with government. Industry working groups/round tables are suggested to develop sector-specific positions that may feed into the National SPS Committee agenda. However, at any rate, there is an urgent need to revive the Committee to enable and improve national SPS coordination.

The DVS in Tanzania is the OIE Enquiry Point and is required to notify the OIE regularly on changes in regulations, decisions on the control of relevant diseases, the country's sanitary status, and regulations from other countries that adversely affect Tanzania. The Plant Health Services in Tanzania is the IPPC contact point for notifications in relation to plant health in Tanzania while the Codex contact point in Tanzania is the TBS. The TBS is also responsible for notifications in relation to the country's obligations under the WTO-TBT Agreement. Tanzania also uses the e-Ping platform for notifications

Uganda: The SPS/TBT Committee in Uganda was established in 2004 and while plans are underway to legalize the TBT/SPS Committee, the committee has no legal status presently. The coordination of SPS measures in Uganda falls under the Ministry of Trade, Industry and Cooperatives (MTIC) as the TBT/SPS National Notification Authority, and the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) as the SPS Competent Authority. In addition, several Ministries, Departments, Agencies, and the Private Sector are involved in the application of SPS measures along the product value chain. The committee mirrors the WTO/TBT and SPS committee's structure and mandates, and benefits from representation from both private sector and public sector.

The UNBS serves as both the Chair and Secretariat to the National TBT/SPS Committee while the Private Sector Foundation (PSF) is the vice chair. The NEP disseminates the relevant notifications and documents through the Membership of the National TBT/SPS Committee. The tenure of the Committee's leadership is not specifically set out in the TOR's.

The TBT/SPS Committee meets quarterly. Additionally, one of the core tasks of a national SPS committee is to collectively prepare for the country's participation in the WTO SPS Committee meetings. To this end, the committee meets at least two weeks prior to meetings of the WTO-TBT and SPS Committees whose attendance is funded by the Ministry of Tourism, Trade, and Industry (MTTI). The MTTI has also, in the recent past, played a central role in funding general capacity building on the SPS Agreement. The committee also has ad hoc meetings whenever there are emerging concerns.

Uganda makes use of the WTO ePing notification system to allow for timely access to SPS notifications. The ePing notification system was introduced in July 2015, however, the weak human resource and institutional capacity of the NNA makes it difficult to handle both SPS and TBT notification issues. It is also difficult to follow-up on comments from relevant stakeholders. This is partly because there is no coordination between private sector associations and their members which prevents the appropriate flow of information. There is also weak engagement with other WTO members in the public and private sectors on the importance of compliance with the SPS Agreement.

Uganda also has developed an information exchange system that will allow East Africans to report non-tariff barriers (NTBs) via a short message service on their mobile phones. The platform provides a clear record of NTBs and helps the country to assess progress in eliminating them. Previously, Uganda recorded NTBs manually on paper at border points, however under this system, the message will reach the department that introduced the NTB immediately,

Photo by Daniel Banda/COMESA

aiding in the development of proper records, immediate notification of NTBs and allowing for prompt resolution.

SPS notifications are distributed to stakeholders through the representatives of the National TBT/SPS Committee. However, the TBT/SPS Committee still faces in effectively disseminating this information.

Kenya: Kenya has a National SPS Coordination Committee (NSPS Committee) established in 2009. The State Department of Trade under the Ministry of Industrialization, Trade and Enterprise Development currently hosts a secretariat for the NSPS Committee, while the Ministry of Agriculture, Livestock and Fisheries (MALF) has delegated KEPHIS the chairmanship of the NSPS Committee. The NSPS Committee holds quarterly meetings (documented in minutes) to prepare for WTO SPS Committee meetings where they discuss Kenya's position in relation to notifications issued as well as the formulation of policies and guidelines such as dispute resolution frameworks.

The NSPS Committee acts as the point of convergence for all government agencies/institutions and stakeholders who are involved in SPS measures implementation or oversight. The key mandates of the NSPS Committee are to provide a regular forum for consultations and to carry out the functions necessary to implement the provisions of the WTO SPS Agreement and the furtherance of its objectives at a national level. This may include proposing required legislative reforms, maintaining close contact with the relevant national organizations in the field of sanitary and phytosanitary protection and their alignment with the Codex, OIE and IPPC, and securing the best available scientific and technical advice for the administration of the SPS Agreement.

This would extend to advising on the impact of SPS measures on export and import policies, reviewing the operation and implementation of the SPS Agreement at the National level with regard to the notification authorities and enquiry points operations, maintenance of SPS data, facilitating wider exchange of information, increasing understanding of SPS issues and assisting in the coordination among public institutions and private sector players on analysis and responses to foreign notifications on SPS. The NSPS Committee has also been able to form sub-committees to handle coordination at specific levels. A good example is the establishment of the Kenya Standing Technical Committee on Imports and Exports (KSTCIE). KSTCIE facilitates the process of risk assessments before the introduction of live organisms. KSTCIE's membership includes both public and private agencies such as PCPB, Kenya Agriculture and Livestock Research Organisation (KALRO), Kenya Wildlife Service (KWS), National Environmental Management Authority (NEMA), National Museums of Kenya (NMK), Directorate of Veterinary Service-State Department for Livestock, and universities, among others. KSTCIE demonstrates effectively how SPS issues can be handled by technical sub-committees with a lean number of members and a clear mandate.

Burundi: The National SPS Committee (NSPS Committee) in Burundi was established under Decree No. 100/99 of 31 March 2013. The position of the chair of the NSPS Committee is held on a yearly rotation by the three national focal points for CODEX, the OIE and the IPPC. It has institutional membership

Photo by Land O'Lakes

and is meant to be the main functional arm in charge of the coordination of SPS matters in Burundi. However, due to resources, it is not fully functional.

The NSPS is currently chaired by the Animal Health Department and has Terms of Reference (TORs) that are clear and pragmatic. The Decree guides the role of the NSPS Committee Members, the composition of the Committee and proposes quarterly meetings.
The NSPS Committee is composed of 22 members from 7 different ministries as well as 5 private sector and national focal points. The National Enquiry Point ('NEP') is the Ministry of Environment Agriculture and Livestock (MINEAGRIE) Plant Health Services Department, while the National Notification Authority is the Ministry of Commerce Transport Industry and Tourism (MCTIT).

The key mandates of the NSPS Committee include:

- Coordinating activities related to sanitary and phytosanitary measures
- Advising the Government on policies related to sanitary and phytosanitary measures and supervising their implementation at the national level
- Facilitating the dissemination of relevant information to all stakeholders on sanitary and phytosanitary measures
- Coordinating stakeholder consultations to prepare country positions for international fora related to sanitary and phytosanitary issues
- Preparing and coordinating sanitary and phytosanitary training programs at the national level
- Providing a forum for the exchange of information between contact points (CODEX, OIE, IPPC) and collaboration on SPS notification
- Contributing to raising awareness on the issues of sanitary and phytosanitary measures among all public and private stakeholders in the national territory
- Strengthening the partnership between the public and private sector

Table 1. Recommendations to strengthen SPS Coordination

Recommendation	Burundi	Kenya	Rwanda	Tanzania	Uganda
Develop capacity building and awareness programs to educate SPS staff and private sector stakeholders and improve the dissemination of information to stakeholders through digital forms and portals.	✓	✓	✓	—	✓
Support the private sector to set up value chain platforms for priority value chains at the national level (e.g.industry working groups/ round tables to develop and prioritize industry positions).	✓	—	✓	✓	✓
Provide technical assistance to establish sub-sectoral meetings/national technical working groups (e.g., on food safety, animal health, and plant health) with various agricultural industries included, contributing to the SPS Committee.	✓	✓	✓	✓	✓
Strengthen the NSPS Committee to become functional by providing support and assistance to: a. Engage the private sector (already a part of NSPS Committee) for financial support b. Optimize the composition of the NSPS Committee c. Develop short term (annual) and long term (5-10 years) plans and programs of activities (National SPS Agenda) d. Develop a national policy to strengthen the role and mandate of the national SPS committee – allow for the allocation of funding from the government.	✓	—	✓	✓	✓
Provide support to NSPS to consider the dual role of the SPS/TBT Committee in handling both SPS and TBT maters. Reconsider terms of Reference.	—	—	✓	—	✓

SECTION 4

Institutional Capacity Building of SPS Systems

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J. National SPS Systems

The Codex Principles and Guidelines for National Food Control Systems foresee competent authorities considering quality assurance systems in their national food control systems through the establishment of arrangements with a voluntary third-party assurance (vTPA) program

The assessment focused on identifying opportunities to assist the respective SPS competent authorities (CAs) in the development of national SPS capacities to conduct conformity assessment procedures (inspections, testing and verification) in support of intra-regional trade. It also considered possible interventions that can strengthen SPS functions that support science-based conformity assessment systems. This includes risk analysis, the judgement of equivalence, mutual recognition, regionalization, early warnings, and rapid response. The coordination of all actors involved in delivering efficient and effective national SPS systems was also an important consideration throughout the assessment.

The national SPS systems, SPS awareness, communication, and coordination mechanisms are described in detail for each country.

Key findings from the technical assessment are outlined in the section below. Recommendations for possible interventions that are focused on SPS systems functional capacity building and strengthening of SPS coordination to support intra-regional trade, including specific interventions that focus on priority trade flows, are summarized in Table 2.

The Codex Principles and Guidelines for National Food Control Systems foresee competent authorities considering quality assurance systems in their national food control systems through the establishment of arrangements with a voluntary third-party assurance (vTPA) program. The Codex Committee on Food Import and Export Inspection and Certification Systems (CCFICS) is developing "Draft principles and guidelines for the assessment and use of voluntary third-party assurance (vTPA) programmes". These public private partnerships provide a solid approach to building the SPS capacity of the private sector and improving SPS compliance. Private sector standards for food safety and the quality of food products are also becoming an important market access requirement, as global agri-food markets are increasingly demanding that their suppliers be certified against a private food safety standard such as GLOBALGAP. However, smallholder farmers who are new to standards may not be able to achieve GLOBALGAP certification and subsequent access markets. The GLOBALGAP organization therefore created LocalGAP (originally called Primary Farm Assurance) to engage smallholder farmers. For example, in South Africa, an adapted LocalGAP, specifically designed to include more smallholder farmers while maintaining the integrity of the main LocalGAP food safety requirements, has been successfully used to focus on smallholder farmer progression towards eventual GLOBALGAP certification since 2013

Rwanda: The legal framework on Animal health does not fully provide for traceability and surveillance programs in the entirety of the animal production chain, and the country has no established Disease-Free Zones (DFZ). Animal health laboratory capacity and an animal disease surveillance system is also lacking.

The development of efficient food safety control measures, which are science-based requires generation of data through national food safety monitoring and surveillance programs. Currently, such food monitoring and surveillance programs are non-existent for lack of financial resources by competent authorities for food safety.

The Rwanda Food and Drug Authority (RFDA) is a new organization, and is in the process of establishing itself, developing a food safety policy, recruiting and training staff, and equipping its border control points which currently lack basic inspection equipment and infrastructure. Based on the limited data available during the organizational restructuring that was underway at the time of this assessment, the main challenge in food safety remains the limited technical capacity of and financial resources needed by farmer-based organizations to put in place food safety management systems to control identified hazards in priority traded commodities. Hazards include mycotoxins (aflatoxins), microbial hazards, and pesticide residues, compounded by the lack of harmonized and implemented food safety standards at the EAC level.

RICA is also undergoing a restructuring process to better align itself to meet its international obligations under the IPPC framework. The NPPO's capacity for inspections, risk analysis, pest surveillance, and diagnostic services is not adequate to keep up with the increasing demands from trade. Some conformity assessment procedures and infrastructure exist at all official points of entry and exit, however several offices at important trade ports are undergoing equipment and other infrastructure investments to be fully operational. Immediate needs to strengthen the plant health system include SOPs, equipment, staff training, and ICT systems to support import controls. Some capacity exists to manage rapid and/or emergency response, but robust plant pest risk management is lacking, and pest data management must be improved to support pest reporting.

Tanzania: The NVS has established a conformity assessment system that combines sanitary and administrative infrastructure, inspection, verification and testing procedures, quarantine, and border controls. Border posts and ports are understaffed, and in most cases, manned by para veterinarians. This may result in delayed consignment clearances or incomplete verifications due to lack of capacity and doubtful technical authority, as the inspection personnel does not meet international competency standards for veterinary certification. Key weaknesses are in the areas of disease surveillance, laboratory testing, risk analysis, weak capacity for the negotiation of mutual recognition and equivalence agreements, poor enforcement of laws and regulations, as well as poor engagement with industry players to support processes and create awareness. Animal disease surveillance in Tanzania is mostly passive and based on clinical observations only.

Tanzania has no effective MRAs for trade-related sanitary measures and regulatory controls with other EAC partner states. This forces every country's competent authority to certify all the regulated consignments destined to their markets independently, irrespective of certifications by other competent authorities of other partner states with significant cost and clearance time implications for regional trade. An MRA developed for veterinary biologicals was reported not to be operational because it has not been officially adopted by the region.

The NVS uses a manual paper-based reporting and conformity assessment system. Papers run the risk of being misplaced as they move through different competent authorities for clearance, risking a complete stall or significant slow-down of the clearance process.

The Tanzania Bureau of Standards (TBS) is responsible for standards, labelling, testing, and certification. Duplication and overlaps in regulations and roles of different regulatory authorities results in uncertainty on the part of farmers and traders regarding which standard and/or regulation to adopt. It also fosters corruption through the imposition of fictitious fees
Product registration for imported food products is considered a trade impediment, as the process relies on product testing that is not aligned with international best practices. Instead, they rely on food management systems and process controls put in place by FBOs. A systems approach that ultimately leads to equivalency recognitions between different control systems is needed.

Food staples consumed by most Tanzanians are purchased from the informal food sector which is characterized by poor hygienic conditions and products contaminated with pathogenic hazards. All of which pose a high risk for consumers.

Some food safety issues identified to have an impact on trade include food contaminated by microbial hazards, pesticide residues above set maximum limits, and mycotoxins (Aflatoxins) in certain food commodities. However, the main challenge in food

safety remains the difficulties faced by the private sector to meet food quality and safety standards set by the regulator. Non-harmonized standards between EAC member countries and a complex, lengthy, and costly registration process for imported food products put in place by some of Tanzania's trading partners were also reported as an impediment to trade facilitation.

The newly established TPPHA was undergoing an organisational restructuring based on the Food and Agricultural Organisation (FAO) NPPO Model 4 at the time of this assessment. The basic phytosanitary capacity for inspections, risk analysis, pest surveillance, and diagnostic services are not adequate, and this prevents the delivery of effective plant health services that can keep up with the increasing demands from trade.

Robust risk management is lacking, and Tanzania has little capacity to manage rapid and/or emergency response. Pest data management is a concern, as the current inspection/sampling regime does not keep a record of inspections or any internal interceptions. Official record keeping is considered "sporadic". TPPHA has access to pest information in the EAPIC-PIMS. The current system for the storage and retrieval of national pest risk analysis information is basic, and a national database of plant pest records is lacking.
The TPPHA needs national guidelines to be developed and to engage the private sector so that specific roles for all actors can be clearly defined. Considering its priority agricultural sectors, Tanzania also needs a sound, nationally coordinated, phytosanitary surveillance, preparedness, and quarantine pest prevention system to maintain and expand export markets. The NPPO lacks a central computerized reporting and information management system, standards, and SOPs for pest surveillance, eradication, and the establishment and/or maintenance of pest free areas.

Tanzania does not have an emergency response strategy with action plans for emergency pest outbreaks. No pest specific national standards or guidelines for rapid responses have been developed to date. Private sector support to build a national emergency response system will be crucial.

Industry highlighted the variations in the cost of certification, testing, and inspection practices used by the EAC and SADC partner states as a concern. In addition, there is an overlap of inspections by various agencies which contribute to increased regulatory compliance costs at the borders, and consequently result in higher prices to consumers as firms pass on the increased cost of doing business. According to industry, this "reduces Tanzania's competitiveness within the EAC and the global market, while resulting in higher prices for foodstuffs for all Tanzanians."

Uganda: Constraints in the enforcement of SPS controls in Uganda include a lack of awareness among traders on SPS requirements, very few MRAs signed to facilitate trade, weak SPS coordination mechanisms amongst agencies involved in enforcing SPS compliance - resulting in duplicated, overlapping or redundant controls, lack of adequate transparency and notification of measures and procedures, and an ineffective complaint redress system. The failure of enforcement agencies to recognize foreign certifications means that importers who have already submitted their goods for inspection, testing, and certification at accredited foreign laboratories are obliged to do so again, adding to both cost and delay.
Food safety conformity assessment services performed by competent authorities have been effective in minimizing the risk of consumption of contaminants in food by consumers. In addition, the UNBS's Pre-shipment Verification of Certification (PVoC) has been relatively effective in reducing the potential of importing contaminated manufactured food products, and recent efforts to update and incorporate risk-based food controls in plants, agricultural crop products and fish and fishery products have been made.

Conformity assessments undertaken by competent authorities for the purposes of food safety are not well aligned with the EAC Harmonized food and feed safety measures. Technical, human resource, and logistical capacity gaps exist that impact the operations and efficiency of the mandated food safety conformity assessment service providers.

The NPPO has introduced several activities including electronic certification and publishing export procedures to improve the system of official phytosanitary controls. Although the inspectors are experienced and well-trained, staff shortages are imminent, preventing the NPPO from running an official export control and certification system fully. In addition, export procedures are lengthy and costly.
The performance of the NPPO in pest risk assessment, surveillance, early warnings, and rapid response is weak and is not able to fully support risk-based inspections. Some levels of harmonization with ISPMs and the EAC SPS protocol exist. Transparency, equivalence, information exchange, and the establishment of pest free areas or areas of low pest prevalence are not well developed.

Capacity building is required for plant health in the public and private sector, especially to address challenges in ICT infrastructure, surveillance and diagnostic capabilities, and to advocate for institutional strengthening and support to the National SPS committee as well as National phytosanitary working group to improve coordination and collaboration.

Kenya: The Kenya Electronic Single Window System was developed by the government to facilitate trade, bringing together all regulatory agencies on a single, transparent platform. The Kenya Trade portal https://infotradekenya.go.ke is currently being rolled out to facilitate the online processing of documents. However, its reach is still limited, and numerous competent authorities continue to require traders to submit hard copies of relevant documents. In addition, there is little sharing of information between the various competent authorities.

The failure of enforcement agencies to recognize foreign certification from accredited laboratories, means that importers who have already submitted their goods for inspection, testing, and certification at accredited foreign laboratories are obliged to do so again, which adds to both cost and delay.

The NVS has established a conformity assessment system and implements various sanitary measures to assure the compliance of both imports and exports of live animals and animal products into and out of Kenya. The system is a combination of sanitary and administrative infrastructure and actions such as inspections, verification and testing procedures, and border controls. Other aspects of the conformity system include reporting and notification (transparency), risk analysis, early warning, emergency preparedness and response, and SPS awareness creation and coordination. Adoption of standard operating procedures is, however, poor across the conformity assessment spectrum to harmonize, standardize, and enhance transparency in the application of procedures.

Sanitary conformity assessments of animals and animal products also involve other authorities and research instituitions (e.g., KEBS, KALRO, etc.), so the NVS must adopt formal mechanisms to ensure a coordinated approach and enabling them to play their role effectively and efficiently. Although these entities are said to be currently collaborating with the NVS, there are no formal accountable engagement mechanisms.

Weak surveillance and laboratory testing capacity is characterized by lack of testing kits for trade sensitive diseases, lack of accreditation of laboratories, and generally low rates of animal testing. The NVS and recognized private laboratories are far apart and may not be accessible for efficient testing of trade consignments. Kenya NVS predominantly relies on passive disease surveillance for sanitary data, with active surveillance kicking in occasionally following suspected outbreaks.

Key weaknesses of the NVS are in areas of disease surveillance, laboratory testing, risk analysis, negotiation of mutual recognition and equivalence agreements, enforcement of laws and regulations, and engagement with industry players to support processes and create awareness. Other significant gaps in the animal health system include understaffing, underfunding, weak stakeholder engagement, lack of standard operating procedures, poor sanitary infrastructure, and ICT coverage across the production-market system continuum.

Specific food safety issues that affect trade include food contaminated by microbial hazards, pesticide residues above-set maximum limits, and mycotoxins (aflatoxins) in certain food commodities. The main challenge in food safety, however, remains the difficulties faced by the private sector to meet food quality and safety standards set by the regulator. Non-harmonized standards between the EAC Partner States and a complex, lengthy, and costly registration process of imported food products put in place by some of Kenya's trading partners were also reported and considered as other major impediments to facilitating trade. A USDA-Food and Agriculture Export Alliance (FAEA) project was launched in Kenya in 2020, to review the national food safety policy, coordinate multi-agencies involved with food safety, and consider capacity building options for improved food safety implementation.

Food staples consumed by most Kenyans are purchased from the informal food sector (street vendors, etc.) which are outside government control. Street vendors especially are a sector characterized by poor hygienic conditions and products contaminated with pathogenic hazards that pose a high risk for the consumers. The lack of control reduces the performance of the National Food Control System to prevent foodborne diseases and protect the population adequately.

Kenyan Plant health systems are considered the most developed amongst EAC partner states. Infrastructure and conformity assessment procedures for plant health regulatory services exist at all points of entry and exit but some offices such as the Naivasha laboratory complex, which supports the Naivasha dry port, still need equipment and other infrastructure investments to be fully operational. Although a certain level of risk-based approaches are applied to border inspections for plants and plant products, much of the risk management is still reactive, and SOPs for certain procedures on plant health sampling, inspection and testing have not been developed.

Some specific surveys are selected at the beginning of the financial year and prioritized according to the immediate challenges experienced. A National Pest Surveillance Strategy is being developed by KEPHIS and all stakeholders including government agencies, academia, private sector representatives, and non-governmental organizations are being consulted. NPPO staff are generally capable but need more training in surveillance and emergency response activities. National legislation does not provide for emergency action following the introduction of a quarantine pest. Currently, emergency response activities are led by the Plant Protection Services of the Ministry of Agriculture Livestock Fisheries and Cooperatives and include other public and or private stakeholders. KEPHIS carries out some emergency response activities, but only if the budget allows. Private sector support to build out a national emergency response is crucial. KEPHIS does not have an emergency response strategy with action plans and guidelines for emergency pest outbreaks, rapid response, and pest eradication.

KEPHIS has access to the pest information in the EAPIC-PIMS. The system for the storage and retrieval of national pest risk analysis information is basic. KEPHIS maintains information on high-risk emerging pests but it needs to be improved by developing an electronic database.

There is a lack of effective coordination between KEPHIS, the Agriculture and Food Authority (AFA) and KEBS, and there are no provisions in the legal frameworks that require them to coordinate their respective SPS roles.

Because of devolution to county governments, effective SPS controls through the entire production chain is now a major challenge. The current regulatory framework for food safety lacks clarity and coherence on who is responsible for what concerning exported products. This lack of clarity is more evident for processed food products of plant origin which are regulated by both MOH and KEBS. To complicate matters further, interviews with respondents uncovered that responsibilities are also aligned depending on the type of hazard found in a product.

If a microbial hazard is detected in a processed food product, the issue was automatically referred to MOH, if a pesticide residue contaminant was found in the food product, the issue was automatically referred to KEPHIS which has no enforcement power in food safety. This lack of clarity and coherence in the roles and responsibilities of various agencies in the current framework creates uncertainty and confusion amongst both the public and private sector.

Burundi: The NVS has inadequate institutional arrangements and coordination. The human resource situation is so acute, that the state has not positioned any qualified technical staff (professionals) at the border posts and there is a complete lack of understanding and coordination between various border agencies.

Burundi lacks effective legal and regulatory frameworks necessary to support efficient food safety controls as required to facilitate the production and trade of all agro-food value chains, in accordance with international best practices. The existing framework does not effectively empower competent authorities to perform their functions as required in modern food control approaches. For example, the competent authorities for food safety do not perform risk-based food controls, SMEs have limited access to certification services, and have limited knowledge in food safety standards to access regional and other targeted international markets resulting in sanitary non-compliances (e.g. high levels of chemical residues), and microbiological and physical contaminants in food products.

Time delays for clearing products at the borders occur due to limited technical SPS personnel and the necessary tools and technologies, such as ICT facilities, to quicken the clearing processes. Although there is no conflict of interest among the competent authorities for food safety in conducting conformity assessments as each of the agencies has its roles well stated, the challenge lies in the uncoordinated nature of their roles which causes the delays Burundi employs the EAC Quality mark to avoid unnecessary repetition of controls.

The food safety concept appears to be not well conceptualized by the relevant agencies responsible for controlling some of the agri-food imports and exports. Competent authorities in the Ministry of Environment, Agriculture and Livestock for certain food products such as plants and agricultural crop products, and animals and animal products, do not cover food safety but rather only plant health and animal health. Hence, not all agro-food value chains are covered by the inspection, testing, certification, and surveillance services.

The capacity of the NPPO to undertake conformity assessments, surveillance, and diagnostics in plant health is inadequate. Unavailability of a central pest database and national surveillance standards and action plans also compromise service delivery. The agri-food trade is limited with an underdeveloped private sector, limited access to high-end markets, and weak compliance to most plant health measures. Risk assessments are only conducted for the purposes of import authorization and less for export market access. These challenges, coupled with limited staff, and poor access to crop and pest information, make the institutionalization of risk-based approaches in inspection and other conformity assessments for plant health difficult to attain

Awareness regarding pest reporting and emergency response was high among the stakeholders interviewed. Private sector partners like farmers and other landowners are required to report pest occurrences as soon as they are detected.

Inadequate funding, research and data, insufficient participation of the private sector and technical staff, and low awareness, all hinder the implementation of harmonized measures. The study noted that previous harmonization efforts were donor supported, which is not sustainable. Further, the lack of necessary infrastructure that has been accorded to other EAC Member States, makes it difficult for the Burundi NPPO to harmonize plant health measures at the same pace.


Photo by Land O'Lakes

Table 2: Recommendations to strengthen SPS Systems					
Recommendations	Burundi	Kenya	Rwanda	Tanzania	Uganda
Animal health					
Support NVS to rationalize and harmonize risk analysis and develop risk-based approaches to sampling and inspections at the border (categories of risk to consider should include small quantities of cross-border traders).	Animal diseases	Animal diseases	Animal diseases	Animal diseases	Animal diseases
Support NVS in establishing a Risk Analysis framework for inspection services including building capacity through training of inspectors in risk-based sampling and testing techniques and inspection and certification	-	-	-	-	Fish and fish product
Support NVS capacity building program to establish quarantines, zones, and compartments for export trade facilitation of animals and animal products. Systemic capacities are required to ensure effective and efficient quarantine processes, credible and interna ionally recognized procedures in the disease-free zones and compartments.	-	Live cattle and beef	-	-	Foot and Mouth Disease (FMD) , in areas where dairy cattle populations are higher/ milk production for export can be produced throughout the year
Support NVS to strengthen/ streamline surveillance and early warning systems for transboundary animal diseases. Support the NVS to develop a National Animal Disease Contingency Plan and Response Strategy (including strengthening of diagnostic laboratory capacity for TADs)	Live cattle and beef	Live cattle and beef	Live cattle and beef	Live cattle and beef	Live cattle and beef
Support the NVS in adopting electronic disease reporting that include all livestock and feed value chains, with feedback loops to encourage participation and to integrate the private sector in disease reporting and effective response to disease incursions.	-	Animal diseases	Animal diseases	-	-
Support the NVS, in collaboration with the private sector, to develop a national Livestock Identification and Traceability System (LITS)	Live cattle	Live cattle and beef	Poultry and eggs; milk and dairy products	Live cattle, goats, and sheep	Milk and dairy products; live cattle; poultry and eggs
Support the NVS and industry to develop a livestock information management system (LIMS) that allows robust analysis of epidemiological data and sharing of information among relevant agencies at national, regional and international level that is needed for the prevention and control of animal diseases including zoonoses.	Live cattle	Live cattle and beef	Poultry and eggs; milk and dairy products	Live cattle, goats, and sheep	Milk and dairy products; poultry and eggs
Support the NVS to develop SOPs and manuals for staff to ensure consistency in the processes of import and export conformity assessments, whilst including the aspects of risk-based sampling, testing and inspections.	-	Live cattle and beef	-	Live cattle and beef	-

Table 2: Recommendations to strengthen SPS Systems					
Recommendations	Burundi	Kenya	Rwanda	Tanzania	Uganda
Animal health					
Support the NVS to develop information packages in a manner that demonstrates the value of compliance to the targeted stakeholders to increase stakeholder's compliance with sanitary measures. The communication should also target modification of isk behaviors that increase transmission of zoonoses such as bovine tuberculosis, brucellosis and RVF especially among the pastoralists and livestock farmers.	Informal traders – live cattle, sheep, goats, poultry and eggs, milk, and dairy products	Informal traders – live cattle, sheep, goats, poultry and eggs, milk, and dairy products	Informal traders – live cattle, sheep, goats, poultry and eggs, milk, and dairy products	Informal traders – live cattle, sheep, goats, poultry and eggs, milk, and dairy products	Informal traders – live cattle, sheep, goats, poultry and eggs, milk, and dairy products
Plant Health					
Support the NPPO to conduct a Phytosanitary Capacity Evaluation to identify and develop: Strategic Plan (Inc. staff, SOPs, KIMS, training, access to information, e.t.c, plus budget) for NPPO, establish formal PRA unit, determine staff component required to conduct surveillance and inspections.					NPPO PCE
Support/ facilitate EAC workshops to continue work on regional PRAs that have been prioritized by the EAC Partner States for harmonization of risk management efforts in the region.	banana, cassava,	banana, cassava,	banana, cassava,	banana, cassava, groundnuts, potatoes, wheat , sorghum, millet	banana, cassava, groundnuts, potatoes, wheat , sorghum, millet
Support NPPO to develop risk-based approach to sampling and inspections at the border (categories of risk to consider specifically small quantities of cr ss-border traders).	Plant pests	Plant pests	Plant pests	Plant pests	Plant pests
Facilitate/support workshops for the development of an EAC regional pest surveillance protocol, and domestication of the same by the country, for priority pests.	emerging plant pests such as FAW		emerging plant pests such as FAW	emerging plant pests such as FAW	emerging plant pests such as FAW
Support the NPPO to develop a National Plant Pest Surveillance Strategy and Emergency Response Strategy for emerging plant pests that should include standards and documented procedures (SOPs, guidelines, action plans) for pest surveillance, rapid response and pest reporting in support of the National Strategy. (Include electronic data management to be linked to EAPIC PIMS and strengthening of diagnostic laboratory capacities for emerging plant pest species).	Emerging plant pests		emerging plant pests such as FAW	emerging plant pests such as FAW	emerging plant pests such as FAW

Table 2: Recommendations to strengthen SPS Systems					
Recommendations	Burundi	Kenya	Rwanda	Tanzania	Uganda
Plant health					
Support the development of a training package on surveillance systems in collaboration with NPPO's/ COPE, to target the private sector and improve knowledge and skills for general and specific surveillance in hort cultural value chains. The curriculum should include: • Pest status and reporting obligations • Surveillance (general and specific • Sampling • Pest diagnostics • Pest data management (e.g. PIMS) • Emergency response and pest management • Eradication		Horticulture value chains	Horticulture value chains		Grain pests and weeds such as Parthenium spp
Support NPPO in training of new staff: • Inspections • Pest Risk Analysis			Plant Pests and all priority trade flows	Plant Pests and all priority trade flows	
Provide support and technical assistance to the NPPO to develop national guidelines (incl. SOPs, action plans with roles and responsibilities), to establish, withdraw and reinstate, pest-free areas, pest free production places and/or production sites (systems approaches) for market access.	Bactrocera spp. fruit flies on avocado FAW (Fall Armyworm) in wheat	False Codling Moth on avocado Fruit fly (Bactrocera dorsalis) on mango Potato cyst nematodes (Globodera spp.) on potato	False Codling Moth on avocado Helicoverpa spp Thrips spp on flowers	Fruit fly on avocado, mango, and passion fruit False Codling Moth on Capsicum spp	False Codling Moth on capsicum and other fruits Potato cyst nematodes on potatoes Mango seed weevil in mangoes Citrus greening disease on citrus fruit and curry leaves Fruit flies on avocado, mango, and banana
Facilitate the development of a robust ICT system for surveillance that is accessible to the private sector and overseen by NPPO. The system's structure should be aligned to EAPIC Pest Information Management System (EAPIC-PIMS) and allow for industry input.	Emerging plant pests	Emerging plant pests, targeted Horticultural pests	Emerging plant pests - Horticulture Grains and seed	Emerging plant pests	Emerging plant pests

Table 2: Recommendations to strengthen SPS Systems					
Recommendations	Burundi	Kenya	Rwanda	Tanzania	Uganda
Plant health					
Facilitate capacity building for private sector on compliance to KS1758 to support exports of priority trade flows through training worksho s on market access requirements and the development of effective food safety management systems.	-	Horticulture	-	-	-
Support NPPO to develop work manuals, guidelines and SOPs for the priorities that were identified across various functional areas of new NPPO structures to improve transparency and consistency of the implementation of conformity assessment procedures.	-	Sampling, testing and inspection procedures that have not yet been documented	All SOPs (new NPPO)	-Guideline for avocado exports to USA -Field Inspection Manual for EU requirements -SOP for inspection on legumes to India - SOP for inspection on cashew nuts to India	
Food Safety					
Support NFSS to develop risk profiles of targeted products and foo business operations as a way to enhance risk assessment capabilities and to strengthen relationships between laboratories, research, regulators and other risk managers to facilitate risk analysis through the information exchange including; confirmation of contamination; risk assessment (haza d identification, characterization and risk profiling; risk communication and alert system).	Beef, milk, poultry, eggs, fruits, and vegetables	All food	All food	All food	All food
Support NFSS to upskill staff in the use of systems approaches including QMS and system audits for food safety.	-	All food	-	-	-
Support NFSS in building capacity in inspections and certification programs to facilitate its establishments as a regulatory body (ISO standards, HACCP, and inspection/registration protocols).	-	-	RFDA	-	-
Support NFSS to develop and implement effective traceability systems, including products from SMEs. The support could include the development of guidelines, SOPs, and manuals for use by the FBOs; training and mentorship of CAs staff and business operators, and where possible development of a software system to support traceability.	All food products Coffee	All food products	All food products	All food products	All food products Animal feed used in fish farms
Support NFSS to implement chemical (pesticide, veterinary drugs, heavy metals) residue monitoring plans to detect intentional and unintentional contamination in high-risk products.	Coffee and tea, fruits and vegetables, cereals, grains, pulses, and nuts; honey	Animal feed (aflatoxin); poultry and eggs	Coffee; cereals, grains, pulses, and nuts; honey; milk and dairy products; poultry and eggs	Coffee; tea; grains, cereals, and nuts; honey	Coffee; tea;cereals, grains, pulses, and nuts; Animal feed (aflatoxin); milk and milk products; fish and fish products
Support the development of a residues database for products and control measures for detected chemical hazards	Fruits and vegetables, cereals, grains, pulses, and nuts	-	Cereals, grains, pulses, and nuts	Grains, cereals, and nuts	Cereals, grains, pulses, and nuts

Table 2: Recommendations to strengthen SPS Systems					
Recommendations	Burundi	Kenya	Rwanda	Tanzania	Uganda
Food Safety					
Support NFSS to establish an effective early warning system and food safety emergency plans for potential food contaminants (establish mechanisms for early detection of food contamination signals; risk assessment, hazard identification, characterization and risk profiling; risk communic ion and alert system).	fruits and vegetables, cereals, grains, pulses, and nuts	All food	grains, cereals, pulses, and nuts; poultry and eggs	grains, cereals, pulses, and nuts	cereals, grains, pulses, and nuts; milk and milk products
Support the development of information package (export guidelines) to enhancee compliance with trade partners on food safety requirements.	-	-	Milk to Kenya	-	FSMA compliance for Coffee to USA Fishery products to EU
Support NFSS to develop a policy document to guide the operations of the sector and ensure that all players conform to standards ensuring good quality and competitive exports to the EAC.	-	-	-	-	Tea
Support NFSS and private sector on awareness creation regarding aflatoxin ris	All livestock sectors, Animal feed, grains	All livestock sectors, Animal feed, grains	All livestock sectors, Animal feed, grains	All livestock sectors, Animal feed, grains	All livestock sectors, Animal feed, grains
Support NFSS to develop risk profiles of the priority products an food business operations and build their food risk assessment capabilities	-	-	Poultry and eggs	-	Milk and dairy products
Advocacy for the adoption of harmonized EAC standards	-	-	Tea and coffee	-	Tea and Coffee


Photo by Daniel Banda/COMESA

K. SPS Laboratories

The SPS laboratory capacity was assessed for each EAC partner state. A description of overall capacity (including adequacy, credibility, and sustainability), gaps and challenges, and key findings and recommendations to improve lab capacity are provided in this section of the report.

Rwanda: The analytical testing and diagnostic capacities in the fields of food safety, animal health and plant health are still limited in Rwanda. There are few competent laboratories able to carry out comprehensive analyses of critical safety and quality tests, failing to address the ever increasing SPS requirements for most traded commodities.

The Rubirizi National Veterinary Laboratory (RNVL) satellite laboratories in Huye, Ngoma, Nyagatare and Rubavu districts, handles diagnostic services for animal health in Rwanda. The laboratories need training in ISO/IEC 17025:2017 requirements, documentation, and internal auditing. Lack of funding prevents the monitoring residue/ surveillance programs to be fully implemented and the TVNL has the capacity to only test for some animal diseases.

The Rwanda Standards Board (RSB) National Quality Testing Laboratories, INES-Ruhengeli Institute of Applied Sciences, Africa Improved Foods Rwanda Ltd, and a private laboratory are the only laboratories with accessible analytical capabilities. The scope of tests and commodities for the accredited laboratories, however, does not exhaustively address a portion of traded commodities (including coffee, tea, vegetable fats and oils, bovine animals, sugar, and sugar products etc.) for the parameters of pesticide residues, heavy metals, veterinary drugs, allergens, and other required safety parameters. Training in ISO/IEC 17043:2010 General requirements for proficiency testing is required.

The Rwanda Standards Board recognizes laboratories to undertake analytical testing services on its behalf. Criteria used for assessments before recognition include but are not limited to the Quality and Procedures Manual based on ISO 17025 - Standard requirements. Recognized laboratories include the following:

- INES-Ruhengeli Institute of Applied Sciences - for Food Testing
- RAB - National Seed Lab
- HORIZON SOPYRWA LTD - North/Musanze - Essential oils
- University of Rwanda (UR- LADAMET) - Water Testing

The RAB Plant Pathology Laboratory is a diagnostic lab for Plant Pathogens, Nutritional, Safety Development of plant diseases diagnostic tools, cleaning of viruses, and the identification and characterization of crop diseases caused by viruses, virus-like bacteria, and fungi. The main activities carried out by the lab involve diagnostics, disease investigation, and surveillance. The laboratory is not accredited and needs technical support for Implementation training in ISO/IEC 17025:2017 version and internal audits.

The RAB National Seed Testing Laboratory is not


Photo by Land O'Lakes

accredited and requires additional trainings to enhance the analytical capacity in seed health testing, equipment maintenance and troubleshooting, ISTA general requirements and implementation techniques, and method validation.

Other important challenges are lack of effective laboratory business plans and models, obsolete equipment, lack of proficiency testing programs in priority trade flows, and a general lack of quality management systems to support international accreditation.

There is no single accessible SPS database of laboratories that maintains an inventory on testing/ diagnostic capacity, location, cost etc. available to traders and authorities seeking testing services in Rwanda. This leads to underutilization of testing capacity as test samples are sometimes shipped to laboratories outside the region, thereby incurring higher testing costs and creating longer waiting periods. In addition, limited published information is available on laboratory services rendered by individual laboratories.

Tanzania: The animal health diagnostic laboratories, TVLA and Sokoine University of Agriculture (SUA), are not accredited and testing is not regularly available due to funding issues and/or lack of resources. Currently, private sector actors send samples for diagnostic testing to laboratories outside of the country, which is expensive and time-consuming. Funds and critical resources are lacking in the central and zonal laboratories, and there is no residue monitoring for animal products. Kilimanjaro Clinical Research Institute (KCRI) has the capacity to undertake zoonotic disease diagnosis, but KCRI and SUA are not authorised for import and export testing.

The accreditation of food safety laboratories is not adequate for trade facilitation in Tanzania. Two laboratories are accredited for tests covering heavy metals, mycotoxins, and microbiological contaminants, but no laboratory is accredited for residue testing. For example, the Tropical Pesticides Research Institute (TPRI) is mandated to research pesticides but has no modern equipment for residue testing. In addition, the National Food Quality Control Laboratories (NFQCL) has implemented a pesticide residue monitoring plan for fish, as a requirement for exporting to the EU market but has no modern equipment for heavy metal analysis.

Food safety laboratories rely on the national government for funding which is not adequate. Labs have not implemented business plans and there is no current engagement with donors for capacity building. There is also no inventory or a formal network of laboratories in the country.

The report of an assessment of laboratories with potential for ISO/IEC 17025 accreditation to support commercial agriculture in Tanzania includes the following government institutions which host plant health laboratories: SUA with two laboratories, the Plant Health Services Laboratory of MALF, and the Tanzania Agricultural Research Institute (TARI). Two TARI centres were assessed according to the above report (Mikocheni and Selian), however none of the laboratories are accredited. The equipment in the final stages of procurement for the Port Health Services (PHS) is not adequate and the facility for the equipment installation requires refurbishment. The PHS laboratory has a severe shortage of staff, specifically those with specialized

knowledge and skills, and the TARI laboratories are not functional to complement PHS in offering plant health laboratory services.

The MALF will collaborate with the TAHA to carry out a laboratory needs assessment to identify at least three (3) laboratories with the potential of being accredited.

Uganda: Animal health laboratories include the Uganda Fisheries Laboratory in MAAIF, National Animal Disease Diagnostics and Epidemiology Centre (NADDEC), National Fisheries Resources Research Institute Aquatic Animal Health and Biosecurity Laboratory, Uganda Fisheries Laboratory (UFL), National Livestock Resources Research Institute (NaLIRRI), and Infectious Disease Animal Research Laboratory (DTRA). The lead animal health Diagnostic Laboratories are not accredited but have developed internal quality control systems based on ISO/IEC 17025:2005, which are only partially implemented due to inadequate funding. They have developed Quality Manuals and Procedures Manuals, which need upgrading to ISO/IEC 17025:2017 version status. The UFL and NADDEC Labs participate in Inter-lab comparisons/PT programs while Aquatic Animal Health and Biosecurity Laboratory and NALIRRI do not participate in Inter-lab comparisons/ Proficiency Testing (PT) programs, as the funding for proficiency testing participation is not adequate. Transboundary Animal Diseases are one of the main constraints for trade in live cattle between Uganda and Kenya. There is no quarantine facilities or laboratories to confirm diagnoses of important animal diseases such as FMD for cattle, and PPR for sheep and goats.

The analytical testing and diagnostic capacities in the field of food safety, animal health and plant health are still limited in Uganda. Laboratories conducting the required regulated chemical, pesticide and antibiotic, animal disease and pest testing are not accredited to support exports. Microbiology and Chemistry Testing Laboratories at the UNBS and one private sector laboratory Chemiphar (U) Ltd, are the only public laboratories that are accredited to support SPS activities. Other laboratories under MAAIF are in their early stages of accreditation but with the limited scope of testing for selected priority traded flows. There is also limited coordination and networking between private and public analytical testing and diagnostic laboratories since there is no established local forum for laboratories in Uganda.

None of the food safety laboratories have the capacity to perform diagnostics tests on food, but they do have the capacity to test for pathogens that are disease causing organisms, such as salmonella, and E. coli. Labs supporting food safety analysis include: the Uganda National Bureau of Standards, Chemiphar Uganda Ltd, Laboratory, St. Michael Food Lab and Consultancy Limited, (SMFLC), the Uganda Coffee Development Authority, the Dairy Development Authority (DDA), the Uganda Industrial Research Institute (UIRI), the Uganda Fisheries Laboratory, the Ministry of Agriculture, Animal Industry and Fisheries, the Directorate of Government Analytical Laboratory (DGAL), NARO, and Makerere University Chemistry, among others.

The scope of tests and commodities for the accredited food safety laboratories do not exhaustively address certain commodities (including coffee, tea, vegetable fats and oils, bovine animals, sugar and sugar products etc.) for the parameters of pesticide residues, heavy metals, veterinary drugs, allergens, and other required safety parameters. Laboratories under the MAAIF, DGAL, UCDA, DDA, St Michael Food Lab and Consultancy Ltd are in their early stages of accreditation preparations transiting from ISO/IEC 17025:2005 to ISO/IEC 17025:2017. UNBS offers proficiency testing for edible oil and gins at the regional level which is limited and requires expansion of scope. There is also a need for support to accredit proficiency testing schemes to attain international accreditation status to ISO17043 Standards.

NARO labs for plant health are not accredited and do not have adequate capacity to test and detect all regulated plant diseases/infections and pests/ pathogens. Chemipihau Ltd accredited laboratory has used some tests (germination, moisture, purity, pesticide residues etc.), but its scope of accreditation does not cover plant diseases. Besides Chemiphar U Ltd, plant health laboratories are not participating in any Inter-lab comparisons/proficiency tests and require training in ISO 17025: 2017 version and internal auditing. The country also lacks ISTA accredited laboratories. There is no single database of available SPS laboratories in Uganda that is easily accessible to traders and authorities seeking testing services, or that and can provide details on testing/diagnostic capacity, location, cost etc. The failure of enforcement agencies to recognize foreign certifications means that importers who have already submitted their goods for inspection, testing, and certification at accredited foreign laboratories are obliged to do so again which results in delays and adds to trade costs.

Kenya: Veterinary laboratory services are available in the country with 2 national referral laboratories, the

Central Veterinary Laboratory (CVL) and the National Veterinary Quality Control Laboratory (NVQCL). However, the CVL, is not accredited for the screening or diagnosis of animal diseases for live animals and food safety parameters in beef and the test results can therefore be challenged. Diagnostic equipment is outdated, staff turnover is high, animal health-related proficiency testing schemes are not available, the emergency operation center is not well established, only 3 out of 11 laboratories have a QMS in place, there is no Mutual Recognition of test certificates in the EAC region. Implementation of protocols for preventing residue risks and for responding to breaches of Maximum Residue Limits including tracebacks and follow-ups is also not in place. Laboratories have no LIMS or business plans and lack training in higher-level epidemiological analysis, disease modelling, and animal welfare science.

Public regulatory institutions with the capacity for food safety testing include KEBS, KEPHIS, National Public Health Laboratory (NPHL) - Food Safety & Nutrition Reference Laboratory (FSNRL) and CVL. The Government Chemist Laboratory (GCL) has the testing capacity as well and is currently under the Ministry of Interior. KEBS has regional laboratories in the counties of Mombasa, Kisumu, Nakuru, Meru, Kajiado (Namanga) Moyale and Uasin Gishu (Eldoret). KEBS and KEPHIS have the capacity (i.e. equipment) to test for residues of a veterinary nature but lack the analytical standards. Accreditation for food safety parameters is inadequate in all the regulatory laboratories. Although the EAC has ILC schemes, they are not accredited to ISO 17043 and they are limited in addressing contaminants. Only KEBS has an operational LIMS.

Although there is the capacity to test all food contaminants in Kenya, it is not optimally utilized due to lack of an official laboratory network. Laboratories are not actively involved in the development of Mutual Recognition Agreements of test certificates within and outside the region.

Plant health diagnostic services are provided by the KALRO and KEPHIS. However, accreditation of the NPPO laboratories is limited to one station, there is no LIMS in place, and the laboratories lack business plans. The main constraints in SPS laboratory capacity in Kenya are the lack of MRAs to facilitate trade, weak coordination mechanisms amongst several agencies involved in conformity assessments, and duplication of documents and procedures involved in enforcing SPS compliance, resulting in overlapping or redundant controls, lack of adequate transparency and notification of measures and procedures, and an ineffective complaint redress system.

MARKUP Kenya (2019-2022) is part of the regional EAC-EU MARKUP programme which aims at addressing both supply-side and market access constraints of some key export-oriented sectors, supporting participation in regional and global value chains. MARKUP Kenya will focus on the horticulture sector with specific value chains including green beans and peas in pods, mango, passion fruit, chilies, herbs and spices and nuts. The Kenya MARKUP Window is implemented by UNIDO beneficiary laboratories at KEBS and KEPHIS. The project will focus on installing and operationalizing new equipment, implementation of GLPs, diagnostic procedures for harmful organisms and analytical procedures for principle food safety hazards in the selected commodities, updating and implementing laboratory business and sustainability plans, reviewing onsite calibration services, supporting the accreditation of conformity assessment services in selected sectors, support for KEBS and KEPHIS laboratories to participate in proficiency testing schemes, and support for KEBS to provide proficiency testing schemes for a network of laboratories across the country.

Burundi: There is limited national testing laboratory capacity to support the SPS system in Burundi. There is no network of laboratories, only a few located at the main exit/entry points, and there are limited interactions with stakeholders and private sector labs.

The National Animal Health laboratories under MINEAGRIE, lack specialized diagnosis personnel and equipment for toxicology, histology, epidemiology, disease modelling, or veterinary drug residue monitoring. The NVS Laboratory has no proficiency testing plan or Quality Management System (QMS) in place. The Burundi NVS laboratory belongs to the veterinary laboratory network of the East African community and participates in interlaboratory activities. It is currently negotiating for twinning agreements with the CODA-CERVA laboratory in Belgium which is the National Reference Laboratory for veterinary diseases. There is no established Mutual Recognition agreement with the EAC partner states or other countries.

Both public and private food safety laboratories are poorly equipped and lack the capacity necessary to test for food contaminants, pesticides, and veterinary drug residues. The presence of veterinary drug residues in beef limits exports to prime international markets, and the lack of uptake of laboratory services for mycotoxin pre-export testing by traders due to the largely informal nature of trade in the products leads to rejections in grain crops.

The food safety laboratories in Burundi have not been accredited for International Organization for Standardization (ISO) standard 17025, they do not have QMS in place, generally lack Laboratory Information Management System (LIMS) software and are not involved in any proficiency tests. The laboratories do not belong to any networks where they can refer samples for confirmation of their testing results and there are no reference laboratories in the country.

Plant health diagnosies are basic visual diagnoses and rarely participate in collaborative studies including interlaboratory testing or mutual recognition arrangements with other laboratories and conformity assessment bodies. The NPPO laboratory is not accredited and there are no private plant health laboratories in Burundi.

There are some Agro-food Standards Harmonized under the EAC which include test methods. Harmonisation of test methods in the region may only facilitate trade within the EAC. Accreditation of the test method is the primary criteria for test certificates to be recognised internationally.

Different laboratories may apply different test methods for a parameter in a test item and achieve the same result if the methods are equivalent, i.e. they meet the predetermined performance criteria. Thus, the harmonization of test methods is not critical. However quality assurance procedures such as grading, require harmonization.

Recommendations to Strengthen SPS Laboratory Capacity at EAC Regional Level

(i) Support respective EAC Partner States to develop a regional database of SPS laboratories to create an inventory of a network of laboratories with capabilities, within the location, to undertake analytical/diagnostic tests, accreditation status of tests performed and ability to provide credible testing services that are accessible to traders/ exporters and Competent Authorities.

(ii) Support competent authorities to strengthen the national Laboratory Networks by creating a national database of laboratories and platform for a network of SPS laboratories through ICT platforms to facilitate sharing of information, methods of analysis and analytical challenges. Other tools such as social media (WhatsApp, Twitter, Instagram) can be used for quick communication of outbreaks/ emergencies to other SPS Labs in the regions during incidences.

(iii) Support the development and implementation of Proficiency Tests:

a). Although the EAC subcommittee for Testing established proficiency testing schemes in the different member states being offered by the Bureau of Standards in those countries, the providing institutions are not accredited to ISO:17043 for General requirements for Proficiency Testing. Proficiency tests from overseas are expensive and matrix and parameters do not address all the requirements of the EAC commodity Standards. It is therefore recommended to support Accreditation of proficiency testing schemes in the EAC region (a concept paper to solicit funding available at EAC secretariat).

overseas are expensive and matrix and parameters do not address all the requirements of the EAC commodity Standards. It is therefore recommended to support the accreditation of proficiency testing schemes in the EAC region (a concept paper to solicit funding available at the EAC secretariat).

b). The EAC schemes are limited in addressing some of the most traded commodities most especially because they do not cover Plant Health and Animal Health Labs. It is also recommended to support the initiation of proficiency testing for Animal and Plant Health Laboratories in the EAC. Facilitate preparation of proficiency testing schemes relevant to the priority value chains in the EAC.

Table 3 provides a summary of the specific laboratories and trade flows, where relevant, that are proposed to be included in supporting the coordination of, and participation in, proficiency testing schemes.

- Training in Method Validation and Estimation of Measurement Uncertainty estimation.
- Training in ISO/IEC 17025: 2017 Version.
- Training in Internal Auditing of the labs.
- Training in equipment maintenance / troubleshooting.
- Training to enhance the analytical capacity for GMO's and Allergens.
- Trainings in advanced methods used for detection of plant and animal diseases and infections.
- Training in Chromatography, Spectroscopy, Multi residue analysis, Forensic testing of foods, data analysis.
- Laboratory Documentation based on ISO/IEC 17025: 2017. i.e. Developing Quality and Procedures Manuals.
- Training in laboratory internal audits.
- Training in the implementation of residue monitoring plans
- Training in Proficiency testing /Interlab Comparison, provision services are required
- Sampling for surveillance and monitoring.
- Specialization in entomology, plant pathology, toxicology, histology, epidemiology, disease modeling, quality management system and animal welfare.


Photo by Land O'Lakes

Table 3: Recommendations to strengthen regional laboratory capacity				
Recommendation	SPS issue / Scope	Trade flows	Proposed lead laboratory	Proposed laboratories for participation
Support coordination of and participation in proficiency testing schemes	Pesticide residues	Horticulture grains, cereals, pulses, nuts, coffee, tea, fish and fish products	Kenya Plant Health Inspectorate Service (KEPHIS) - Analytical Chemistry Laboratory	Uganda National Bureau of Standards (UNBS) - Uganda Directorate of Government Analytical Laboratory (DGAL) - Uganda Kenya Bureau of Standards (KEBS) - Kenya Rwanda Standards Board (RBS) - Rwanda Government Chemist Laboratory Authority (GCLA) - Tanzania Tanzania Bureau of Standards (TBS) - Tanzania Tropical Pesticides Research Institute (TPRI) – Tanzania SGS Kenya Limited (private) - Kenya
	Mycotoxins	Milk animal feed, pulses nuts cereals grains Coffee	Kenya Bureau of Standards (KEBS)	Kenya Plant Health Inspectorate Service (KEPHIS) - Kenya National Public Health Laboratories (NPHL) - Kenya Food Safety & Nutrition Reference Laboratory (FSNRL) - Kenya Government Chemist Laboratory (GCL) - Kenya Central Veterinary Laboratory (CVL) - Kenya Uganda National Bureau of Standards UNBS) - Uganda Directorate of Government Analytical Laboratory (DGAL) - Uganda Rwanda Standards Board (RSB) - Rwanda Government Chemist Laboratory Authority (GCLA) - Tanzania Tanzania Bureau of Standards (TBS) - Tanzania Burundi Bureau of Standards and Quality Control (BBN) - Burundi Centre National de Technologie Alimentaire (CNTA) – Burundi Polucon Services Kenya Limited (private) - Kenya Unga Limited -Kenya (private) - Kenya SGS Kenya Limited (private) - Kenya
	Veterinary drug residues	Honey and honey products, Milk and milk products Fish and fish products-(Aquaculture) Meet and meet products	Uganda National Bureau of Standards (UNBS)	Central Veterinary Laboratory (CVL) - Kenya Government Chemist Laboratory Authority (GCLA) - Tanzania Directorate of Government Analytical Laboratory (DGAL) - Uganda

Table 3: Recommendations to strengthen regional laboratory capacity				
Recommendation	SPS issue /Scope	Trade flows	Proposed lead laboratory	Proposed laboratories for participation
Support coordination of and participation in proficiency testing schemes	Heavy metals	Horticulture coffee, tea, fish and fish product	Tanzania Bureau of Standards (TBS)	Government Chemist Laboratory Authority (GCLA) - Tanzania National Fish Quality Control Laboratory (NFQCL) - Tanzania Kenya Bureau of Standards (KEBS) - Kenya Kenya Plant Health Inspectorate Service (KEPHIS) - Kenya National Public Health Laboratories (NPHL) - Kenya Food Safety & Nutrition Reference Laboratory (FSNRL) - Kenya Government Chemist Laboratory (GCL) - Kenya Central Veterinary Laboratory (CVL) Kenya Uganda National Bureau of Standards (UNBS) - Uganda Directorate of Government Analytical Laboratory (DGAL) - Uganda Institut des Sciences Agronomiques du Burundi (ISABU) - Burundi
	Microbiological contaminants	Horticulture Fish and fish products Meat and meat products	Kenya Bureau of Standards (KEBS)	Kenya Plant Health Inspectorate Service (KEPHIS) - Kenya National Public Health Laboratories (NPHL) - Kenya Food Safety & Nutrition Reference Laboratory (FSNRL) - Kenya Government Chemist Laboratory (GCL) - Kenya Central Veterinary Laboratory (CVL) - Kenya Burundi Bureau of Standards and Quality Control (BBN) – Burundi Government Chemist Laboratory Authority (GCLA) - Tanzania National Fish Quality Control Laboratory (NFQCL) - Tanzania Tanzania Bureau of Standards (TBS) - Tanzania Tanzania Industrial Research and Development Organization (TIRDO) - Tanzania Uganda National Bureau of Standards (UNBS) - Uganda Directorate of Government Analytical Laboratory (DGAL) – Uganda Ana labs Limited (private) - Kenya Quality Plus Laboratory and Consultancy Services Limited (private) - Kenya Polucon Services Kenya Limited (private) - Kenya Chemiphar (U) Ltd (private) – Uganda St. Michael Food Lab and Consultancy Limited (private) – Uganda SGS Kenya Limited (private) - Kenya
Support accreditation to ISO 17043	Metals • Lead • Zinc	Honey	Tanzania Bureau of Standards (TBS)	

Table 3: Recommendations to strengthen regional laboratory capacity

Recommendation	SPS issue /Scope	Trade flows	Proposed lead laboratory	Proposed laboratories for participation
Support accreditation to ISO 17043	Metals • Nickel • Copper	Edible oil	Uganda National Bureau of Standards (UNBS)	
	Mycotoxins -Total aflatoxins	Maize flou	Kenya Bureau of Standards (KEBS)	
	Microbiology • E. coli • Listeria • Salmonella	Dairy product Fish	Kenya Bureau of Standards (KEBS)	
Support coordination of and participation in proficiency testing schemes	Virology PPR and RVF and FMD causing viruses	Live animals - Cattle	Central Veterinary Laboratory (CVL) - Kenya	National Veterinary Laboratory (NVL) - Burundi National Animal Disease Diagnostics & Epidemiology Centre (NADDEC) - Uganda Tanzania Veterinary Laboratory Agency (TVLA) - Tanzania Sokoine University of Agriculture (SUA) - Tanzania Rubirizi National Veterinary Laboratory (RNVL) - Rwanda Ana labs Limited (private) – Kenya
Support accreditation to ISO 17043	Virology PPR and RVF and FMD causing viruses	Cattle	Central Veterinary Laboratory (CVL) - Kenya	National Veterinary Laboratory (NVL) – Burundi National Animal Disease Diagnostics & Epidemiology Centre (NADDEC) -Uganda Tanzania Veterinary Laboratory Agency (TVLA) - Tanzania Sokoine University of Agriculture (SUA) - Tanzania Rubirizi National Veterinary Laboratory (RNVL) - Rwanda
Support accreditation to ISO 17043	Virology Maize Lethal Necrosis Disease (MLND) causing viruses	Maize	Kenya Plant Health Inspectorate Service (KEPHIS-PQBS)	Kenya Agriculture and Livestock Research Organisation (KALRO) - Kenya Rwanda Agriculture and Animal Resources Development Board (RAB) National Seed Testing Laboratory - Rwanda, National Agricultural Research Organization (NARO) - Uganda, Plant Health Services (PHS) Laboratory – Tanzania Sokoine University of Agriculture (SUA-The African Seed and Plant Health Centre (AfSPHC) - Tanzania

Notes

1. Participation in common PTs will contribute to mutual recognition of test certificate
2. The unaccredited participating laboratories can use the exercise to validate methods in preparation for accreditation
3. The lead laboratory can be designated as a reference laboratory while those participating can be designated as satellite laboratories depending on their performance in the PTs
4. Some of the proposed laboratories are already providing PTs for the trade flows and parameters they have been proposed to coordinate, e.g. KEBS for Microbiology and mycotoxins

Photo by Land O'Lakes

L. Private Sector Compliance with SPS Measures

Limited technical skills, lack of knowledge and understanding of SPS standards, measures, and export markets have hindered EAC partner states' potential to export agricultural products to prime markets both regionally and internationally. Country reports contain detailed summaries of private sector constraints in EAC partner states.

It is recommended that training and awareness creation for private sector stakeholders in the priority export value chains be implemented to improve private sector compliance with SPS measures of regional and international markets.

Recommendations for TRASE interventions, in partnership with other development partners, SPS institutions, and the private sector are aimed at increasing the knowledge, understanding, and skills required to strengthen private sector compliance in the region (Table 3).

Advocacy for competent authorities to improve their level of input and use of existing regional SPS knowledge and information management systems (e.g. NPPOs to use EAPIC-PIMS for the collection and sharing of data on plant pests and diseases), will enhance the SPS information output these systems can have, and thereby contribute to creating better understanding and subsequent private sector compliance to SPS measures.

Table 4: Recommendations to improve private sector compliance					
Recommendation	Burundi	Kenya	Rwanda	Tanzania	Uganda
Support COPE to extend education/ training/ awareness programs for private sector stakeholders (including small-scale traders, farmers, exporters) in the EAC Partner States on various aspects of plant health measures and compliance.	All stakeholders	All stakeholders	All stakeholders	All stakeholders	All stakeholders
Support the EAC with the development of a strategy to help food business operators of EAC exporting countries meet ISO 22000 as required by the EAC Food Safety Harmonization Measures.	Five or six priority value chains for EAC could be identified with a focus on SMEs as recommended by the EAC Codex forum in its submission on identified priorities for food safety	Five or six priority value chains for EAC could be identified with a focus on SMEs as recommended by the EAC Codex forum in its submission on identified priorities for food safety	Five or six priority value chains for EAC could be identified with a focus on SMEs as recommended by the EAC Codex forum in its submission on identified priorities for food safety	Five or six priority value chains for EAC could be identified with a focus on SMEs as recommended by the EAC Codex forum in its submission on identified priorities for food safety	Five or six priority value chains for EAC could be identified with a focus on SMEs as recommended by the EAC Codex forum in its submission on identified priorities for food safety
Advocacy for the use of East African Phytosanitary Information Committee (EAPIC) PIMS and provide technical assistance to EAC to develop models of sustainability and support for EAPIC activities.	EAC, Partner States NPPOs, EAPIC	EAC, Partner States NPPOs, EAPIC	EAC, Partner States NPPOs, EAPIC	EAC, Partner States NPPOs, EAPIC	EAC, Partner States NPPOs, EAPIC
Advocacy and support for the finalization of the EAC MRA that has been developed on the registration of veterinary biologicals.	Live cattle and beef	Live cattle and beef	Live cattle and beef	Live cattle and beef	Live cattle and beef
Support the EAC to develop manuals and guideline documents that will support Competent Authorities in their efforts towards domestic adoption. This could include tools such as border inspection manuals and strengthening EAC PSs "digitized" systems.	EAC, NVS	EAC, NVS	EAC, NVS	EAC, NVS	EAC, NVS
Support initiatives in the EAC Partner States using all the tools which have been developed by Partnership for Aflatoxin Control in Africa (PACA) e.g., making available and affordable Aflasafe for farmers, providing to them drying equipment and affordable testing tools for stored products in EAGC certified warehouses, and training on the safe handling of grain products.	EAGC, NPPOs and Private Sector Institutions	EAGC, NPPOs and Private Sector Institutions	EAGC, NPPOs and Private Sector Institutions	EAGC, NPPOs and Private Sector Institutions	EAGC, NPPOs and Private Sector Institutions

Table 4: Recommendations to improve private sector compliance					
Recommendation	Burundi	Kenya	Rwanda	Tanzania	Uganda
Support the development of EAC regional surveillance protocol for emerging pests e.g. FAW, MLND.	EAC, NPPO	EAC, NPPO	EAC, NPPO	EAC, NPPO	EAC, NPPO
Support CAs to develop information packages and facilitate informal trader engagements (workshops) at various borders to create platforms for awareness of SPS issues and discussion of specific small-scale cross border trade challenges , e.g., Good Agricultural Practices (GAPs) for pest management, transboundary pest and diseases, safe use of pesticides that can assist to identify further interventions to formalize trade.	NVS, NPPO, NFSS, EAFF	NVS, NPPO, NFSS, EAFF	NVS, NPPO, NFSS, EAFF, NAEB-RHWG, RAB	NVS, NPPO, NFSS, EAFF	NVS, NPPO, NFSS, EAFF
Support NFSS to develop a food safety awareness campaign (in collaboration with the private sector) to increase food safety knowledge and awareness among the stakeholders including consumers, traders, policymakers, relevant institutions and agencies so that they are aware of the need to ensure food safety and its impacts on public health and trade. Support NFSS in the development of information material/ packages to educate consumers and key actors (including small-scale producers) in food chains on the prevention of food-borne diseases.	Information packages focusing on priority food safety issues for Burundi e.g. mycotoxins (aflatoxin) in grains, cereals, pulses, nuts, and animal feed [EAGC, Centre National de Technologie Alimentaire, Industrie Agro Alimentaire Du Burundi (IAB), Faculté de Sciences Agronomiques FACAGRO, EAFF]	Support capacity building efforts by KEBS, and include the private sector, in training for SMEs to implement food safety management systems and meet food safety standards set by the regulators.			Support UNBS and the private sector on awareness creation regarding aflatoxin risks in animal fee
Support NPPOs through collaboration with ICIPE, to develop information materials and training for the private sector, especially small-scale cross-border traders, for development of sustainable management strategies for insect-vectors of MLND, to enhance private sector awareness and understanding of SPS requirements and risks in maize, rice, and sorghum.	NPPO, ICIPE	NPPO, ICIPE	NPPO, ICIPE	NPPO, ICIPE	NPPO, ICIPE

Table 4 Recommendations to improve private sector compliance					
Recommendation	Burundi	Kenya	Rwanda	Tanzania	Uganda
Support training and extension programmes by supporting the development of relevant SPS information in support of priority export trade flows		Support/ facilitate training for private sector exporting to the US, to support food export companies in their efforts to develop and implement FSMA compliant food safety systems required to access US markets: Macadamia nuts, coffee, animal and vegetable fats, fish fillets and othe fish meat [KEBS/ DVS/ NutPack/ Kenya Fish Processors & Exporters Association]	Expand on NAEB existing training materials on ten vegetable crops (i.e., Tomato, hot pepper, onion, carrots, cabbage, broccoli, African eggplant, French beans, snow peas and cucumber) that were given to farmers in partnership with Strengthening Education for Agricultural Development (SEAD) project	Rice Council of Tanzania (RCT) on rice certification, quality improvement, food safety, post-harvest loss management TAHA on SPS compliance for producers Tanzania Seed Trade Association (TASTA) on seed certification and SPS compliance EAFF on aggregation and SPS compliance Safe use of appropriate pesticides for small scale farmers (TAHA/ TASTA/RCT/ EAFF)	
Support NVS to develop information packages that can be disseminated via industry associations to improve compliance with sanitary measures imposed by the importing country. Such messages could include (a) nature and potential consequences of emerging animal diseases and zoonoses (b) reporting of notifiable diseases (c) documentation requirements (d) and the benefits to be derived from disease prevention, reporting and control.		Kenya Livestock Breeders Association (KLBA), Kenya Poultry Association, Kenya Poultry Farmers Association (KEPOFA), Kenya Meat and Livestock Exporters Industry Council (KEMLEIC)F			


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