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The U.S. Government's Global Hunger & Food Security Initiative



SPS Solution Synthesis Report



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Acronym List

AFA	Agriculture and Food Authority
ACT	Agricultural Council of Tanzania
CMA	Cereal Millers Association
EAC	East African Community
EAGC	Eastern Africa Grain Council
EAS	East African Standards
ISR	Industry Self-Regulation
KEBS	Kenya Bureau of Standards
KEPHIS	Kenya Plant Health Inspectorate Service
SIDO	Small Industries Development Organisation
SME	Small and Medium Enterprises
SPS	Sanitary and Phytosanitary
SRO	Self-Regulatory Organization
TBS	Tanzania Bureau of Standards
TGCU	The Grain Council of Uganda
UGMA	United Grain Millers Association

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I. Introduction

Trade in staple food grains – mostly maize, beans, rice, and soybeans – accounts for almost half of all food trade in East Africa. However, the production and trade of staple food are complicated by the nature of the value chain, which is dominated by smallholder farming, and weak market and regulatory systems.

A major consequence of these structural issues is poor food safety, as evidenced by high levels of aflatoxin (and other mycotoxins) in grains (particularly maize and groundnuts), as well as products derived from them. Poor food safety has significant public health and economic costs. On the public health front, aflatoxin contamination poses acute health risks and also undermines food security¹. In terms of economic costs, Tanzania and Uganda are estimated to lose millions of dollars annually due to the reduced value of agricultural exports resulting from aflatoxin contamination².

Approach and Methodology

Informed by evidence from Policy LINK’s competitiveness analysis, the SPG prioritized compliance with sanitary and phytosanitary (SPS) measures, specifically food safety measures, as a priority constraint to regional food trade. Furthermore, the establishment of industry self-regulation (ISR) (see box) as a long-term and strategic solution to the mycotoxin contaminations in the region.

To further develop this solution, Policy LINK established a task team led by the Eastern Africa Grain Council (EAGC) to design an appropriate ISR framework for each targeted country: Kenya, Tanzania, and Uganda.

The task team³: analyzed food safety issues in staple food value chains in East Africa, to inform the design of appropriate ISR frameworks and solutions. Furthermore, convened country level workshops in Kenya, Uganda, and Tanzania and a regional write shop to create buy-in, understand the readiness, and design the technical aspects for the ISR frameworks.

Industry self-regulation is “a regulatory process whereby an industry-level organization (such as a trade association or a professional society), as opposed to a governmental- or firm-level organization, sets and enforces rules and standards relating to the conduct of firms in the industry” (Anil, 1983).

Overview of this Paper

This paper provides an overview of the food safety challenges in the staple food value chains, the root causes of those challenges, and details on the proposed solution of ISR. It starts with an overview of staple food value chains and trade in the region, as well as the economic and public health costs of poor food safety. Next, the paper offers insights into both regulatory challenges and food safety risks along staple food value chains, before introducing ISR and explaining why it is an appropriate solution in the East Africa context. It also includes key considerations and country specific ISR frameworks, and it ends with a roadmap to implementing ISR as a solution.

¹ Aflatoxin: Economic Impacts on Trade in EAC. Presentation at the Regional Forum to Launch EAC Policy Briefs on Aflatoxin Prevention and Control, 15-16 August 2018 in Nairobi, Kenya.

² Ibid.

³ The team included government representatives, value chain actors, food safety experts, research organizations, and development partner representatives from the three countries.

2. Background

Staple Food Value Chains and Trade in East Africa

Maize, beans, rice, cassava, millet, wheat, sorghum, groundnuts, yams, and tree nuts are the main staple food crops in East Africa. Of these, maize is perhaps the most important crop given its contribution to food security, trade, and the livelihoods of millions of people in the East African Community (EAC)⁴.

Maize accounts for 65 percent of total cereals production in the EAC⁵. It is also the most traded food⁶, accounting for 20 to 30 percent of intra-regional food trade depending on the season. Maize is also the most consumed food: it provides 30 percent of daily caloric intake in Kenya, 32-51 percent in Tanzania, and 11 percent in Uganda⁷.

The production and trade of maize and other staple foods are constrained by structural issues in the value chains, which are dominated by smallholder farming, as well as weak market and regulatory systems. Among these challenges are limited aggregation and handling capacities, inefficient linkages between farmers and off-takers, information asymmetry, and unpredictable business and regulatory environments.

In addition to increasing transaction costs and reducing earnings for value chain actors, these challenges undermine the quality and safety of food for consumers, as evidenced by the prevalence of high levels of aflatoxin (and other mycotoxins) in grains (particularly maize) and the food products (and animal feed) derived from them. In Kenya, for example, the prevalence of aflatoxin in maize flour (i.e., samples exceeding the maximum allowable limit of 10 ppb) was estimated at 14.4 percent in 2021⁸.

As a result, trade suffers. Tanzania and Uganda lose millions of dollars each year (an estimated \$5.3 million and \$16 million, respectively)⁹ due to the reduced value of agricultural exports resulting from aflatoxin contamination.

On the public health front, contamination can cause illness and even death. In Tanzania, for example, several fatalities due to acute aflatoxin contamination in food were recorded in the Dodoma region. Moreover, researchers estimate that aflatoxin reduces the amount of food available for consumption (in terms of caloric value) by 18 percent, 15 percent, and 11 percent in Kenya, Uganda, and Tanzania, respectively, undermining food security in the region¹⁰.

⁴ The solutions proposed in this paper target staple value chains, with maize as the priority for the reasons articulated here.

⁵ FAOSTAT, n.d

⁶ In East Africa, Tanzania and Uganda are typically net exporters of food grains due to production exceeding demand and relatively lower cost of production, while Kenya, Rwanda, Burundi, and South Sudan tend to be net importers as local demand exceeds production and relatively higher cost of production. Data from the International Trade Centre show that in 2020, approximately 78 percent of Uganda's maize exports were to Kenya.

⁷ Haggblade, S. & Dewina, R. (2010). Staple Food Prices in Uganda. Available at: http://ageconsearch.umn.edu/record/58553/files/AAMP_Maputo_25_Uganda_ppr.pdf; FAO. 2014. Analysis of price incentives for Maize in Kenya. Technical notes series, MAFAP, by Mulinge, W.M., N.M. Ng'ang'a, A.W. Mwaniki, F.M. Murithi and Ahmed M., Rome. Available at: <https://www.fao.org/in-action/mafap/resources/detail/en/c/396085/>; FEWSNET (2018). TANZANIA Market Fundamentals Summary. Available at: <https://fews.net/east-africa/tanzania/market-fundamentals/august-20-2018>

⁸ Presentation of industry surveillance of fortification and aflatoxin conducted by Ministry of Health and Jomo Kenyatta University of Agriculture and Technology made during a stakeholder workshop in May 2022.

⁹ Ibid.

¹⁰ Aflatoxin: Economic Impacts on Trade in EAC. Presentation at the Regional Forum to Launch EAC Policy Briefs on Aflatoxin Prevention and Control, 15-16 August 2018 in Nairobi, Kenya.

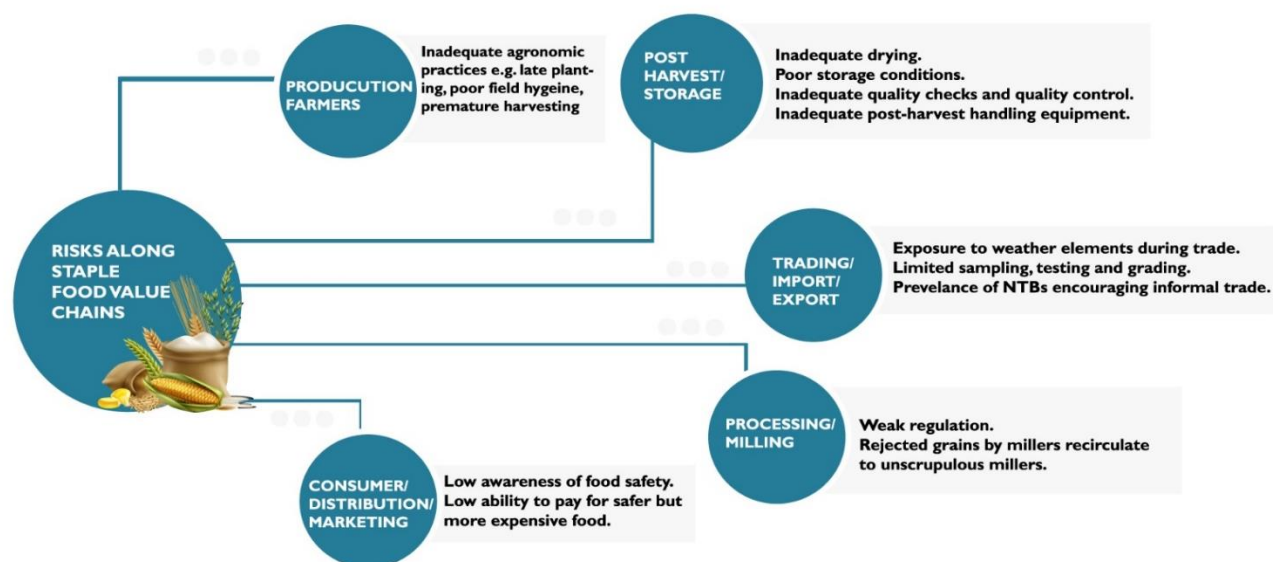
3. Defining the Nature of the Problem

Poor food safety is caused by both risks along staple food value chains and weak regulatory and market systems. Both issues are described in more detail below.

Risks along Staple Food Value Chains

The structure of staple food value chains – which are largely dominated by smallholder farming – exacerbates the problems around mycotoxins and constraints regulators’ ability to control them. As shown in Figure 1, food safety risks emanate along staple food value chains, with each value chain actor playing a role in heightening or mitigating food safety risks.

Figure 1. Causes of Food Safety Risks in Staple Food Value Chains



Source: EAGC, 2022

At the **production level**, food safety risks are borne of agronomic malpractices, most of them by smallholder farmers. Specific causes include, but are not limited to:

- Lack of awareness about aflatoxin and how to prevent it at the farm level. Poor seed selection, i.e., choosing seed varieties that are more prone to food safety risks (particularly aflatoxin) than others.
- Poor field hygiene, e.g., maize is mixed with other crops or dried on wet areas with insufficient barriers, increasing exposure to fungal contamination. Monocropping, i.e., not using crop rotation to disrupt colonization by fungi or other pests.
- Premature harvesting, i.e., harvesting the crop before it has dried or matured.
- Limited financial capacity and incentives to invest in grain storage and other technologies for aflatoxin control.

At the **aggregation and trade level**, food safety risks are caused by:

- Poor hygiene, e.g., a lack of appropriate handling clothing and cleaning stations for food handlers.
- Poor handling practices, e.g., most farmers use traditional handling methods, including drying produce on the ground, which can lead to contamination.
- Poor storage due to a shortage of suitable storage facilities close to farmers and lower-level aggregators/traders. This creates the conditions for fungal growth, rotting, and pest infestation, all of which can result in high levels of aflatoxin contamination.

At the **millers level**, food safety risks are mainly caused by millers exploiting regulatory gaps. For example, there is no set procedure on how to deal with maize consignments rejected due to high aflatoxin contamination levels. Rogue millers take advantage of this loophole, buying rejected maize consignments at reduced prices and selling the milled flour cheaply to unsuspecting consumers.

Regulatory System Challenges

Despite the issues described above, EAC Partner States do have structures to assure food safety. At the EAC level, there are Sanitary and Phytosanitary (SPS) and Food strategies that harmonize standards regionally¹¹. At national level, each Partner State has its own legal and institutional arrangements. The ministries of agriculture, health, and trade are typically involved in formulating policies to promote and regulate food safety. Under these line ministries, plant health departments or agencies, bureaus of standards, and public health departments are common.

Some of the key gaps and challenges in the current food safety control systems in the three countries:

- **A narrow scope concerning food safety:** Regulatory efforts have traditionally focused on aflatoxin, with limited focus on others, such as pesticide residues and other mycotoxins.
- **Weak and unbalanced enforcement due to resource constraints:** Resource-constrained regulators tend to focus on large-scale food millers as it is harder to monitor the big number of smaller millers with limited resources¹².
- **Overlapping regulations and limited coordination among regulators:** Layers of regulations¹³, which are often applied in an uncoordinated manner, increase costs for both the public and private sectors and, contrary to expectations, discourage value chain players from operating above board.

¹¹ The Protocol on Sanitary and Phytosanitary Measures (ratified by all states by 2021) provides an overarching framework that harmonizes food safety measures to facilitate free trade within the EAC, develop the agricultural sector, and increase quality production. Supporting this protocol are the EAC Food and Nutrition Security Action Plan II 2018-2022 and the Food and Nutrition Security Strategy 2018-2022, both of which aim to improve access to safe food. EAC Partner States have also adopted harmonized East African Standards (EAS) for Cereals and Pulses (first gazetted in 2013), supported by the EAS for Sampling and Test Methods (both of which were gazetted in 2017).

¹² Kenya's Cereal Millers Association estimates that their members and larger millers account for just about 40 percent of the maize flour produced in Kenya; meanwhile, rejected or untested maize can easily find its way through small millers who have a larger market share.

¹³ This issue is particularly acute in Kenya, where the Agriculture and Food Authority (AFA), the Kenya Bureau of Standards (KEBS), the Public Health Department, and the Kenya Plant Health Inspectorate Service (KEPHIS) all have food safety mandates.

4. Solutions

Effective control of aflatoxins requires a range of investments across staple food value chains as well as a supportive institutional framework. These investments may address issues related to awareness, agronomic practices, market and laboratory infrastructure, and the policy and regulatory environment. While this paper focuses on industry self-regulation (ISR) as a solution, other complementary solutions that will help address food safety compliance within staple food value chains include:

- **Strengthening extension services (public and private).** Better extension services can raise awareness of proper agronomic and post-harvest management practices, particularly among the many smallholder farmers and traders involved in maize or staple food production.
- **Increasing public sector investments in food safety.** Even with private sector-focused solutions, significant public investment in food safety and risk management systems is needed in all East African countries. Testing and laboratory accreditation, market infrastructure and surveillance, and standards policies and regulatory frameworks are all priorities. Most investment has focused on the latter, without sufficient investment in the other areas.
- **Adopting technologies across the value chain.** Evidence suggests that incentivizing small-scale millers to adopt on-farm technologies¹⁴ and cost-effective testing or screening technologies can help reduce aflatoxin upstream. Economic incentives are key, as is supporting technology practice hubs that can raise awareness of the tools and technologies.

4.1 Proposed Solution: Industry Self-Regulation

Industry self-regulation (ISR) is “a regulatory process whereby an industry-level organization (such as a trade association or a professional society), as opposed to a governmental- or firm-level organization, sets and enforces rules and standards relating to the conduct of firms in the industry”¹⁵.

Standards set under ISR schemes complement existing laws, imposing supplemental rules that govern how firms operate in specific industries. ISR can incentivize most – if not all – value chain players to take corrective actions in their respective operations. Millers, for example, would put in place sound manufacturing practices and protocols to comply with standards. Then, by buying only aflatoxin-free products, millers can incentivize farmers to adopt good agronomic practices.

Rationale for Industry Self-Regulation – Why ISR?

Industry self-regulation in staple food value chains makes sense in the EAC context for the reasons described below:

- i. **ISR can help address deficiencies in the current regulatory system** – because the public sector alone cannot assure food safety in staple food value chains, ISR can provide additional and complementary oversight.

¹⁴ These technologies include Aflasave, biocontrol products, and dry sheets/hermetic storage bags.

¹⁵ Anil, K. G. (1983). Industry Self-Regulation: An Economic, Organizational and Political Analysis. *The Academy of Management Review*, 417.

- ii. **ISR can help level the playing field** – in a weak regulatory environment, an ISR framework can create additional benefits for businesses that comply with regulations, and increase the cost of non-compliance.
- iii. **ISR can reduce the risks of costly, ad hoc enforcement action by regulators** – an ISR framework can establish a system of self-policing in which corrective action is taken before enforcement action is required.
- iv. **ISR can help countries avoid punitive measures like import bans** – ISR can act as the first line of defense against food safety issues, addressing threats before they spill across borders.
- v. **ISR can reduce the cost of compliance by spreading the cost along the value chain.**
- vi. **ISR can help the private sector uphold its ethical duty to ensure safe food while also furthering long-term commercial interests.**
- vii. **ISR can tap into the private sector’s wealth of knowledge** to bring order to this sector and facilitate flexible, nimble responses to emerging risks and opportunities.

Features of an ISR Framework – What is ISR?

ISR frameworks typically consist of the components shown in Figure 2 and explained below.

A self-regulatory organization (SRO) is a non-governmental organization formed by the private sector. The SRO sets standards, monitors compliance, and enforces the rules. It may operate with the endorsement or recognition of the government or independently.

The rules are aligned with existing regulations, and typically take the form of a code of practice or conduct or an industry standard. They stipulate a registration process to profile and certify subscribers, the rights and obligations of each value chain stakeholder group (including their respective requirements to be certified as compliant), the dispute resolution process, and the rewards for compliance and/or sanctions for non-compliance. The processes should ideally leverage technology for greater efficiency, data security, and traceability.

An audit scheme prescribes the processes and procedures that lead to compliance at each level of the value chain, as well as the facilities and equipment required to certify compliance.

A surveillance scheme enables the SRO to assess whether the rules are working on a day-to-day basis to assure compliance with food safety requirements. Such a scheme will include a system for data capture

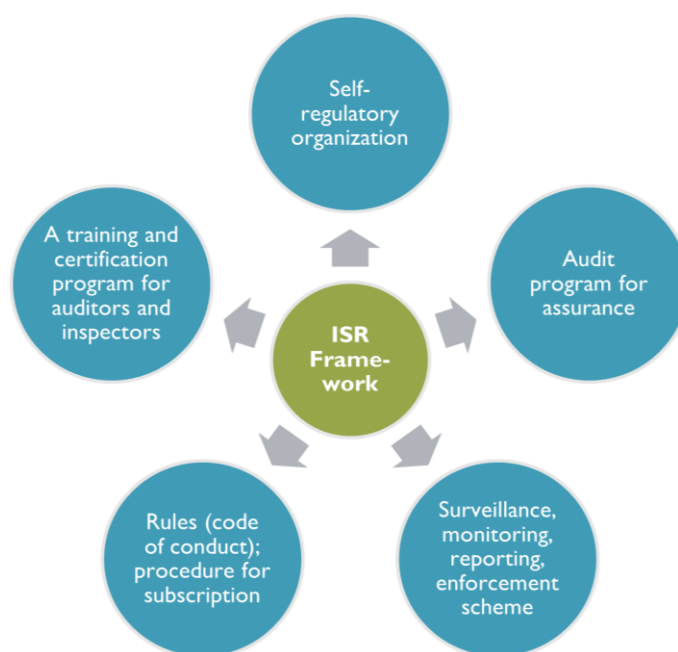


Figure 2: Elements of an ISR Framework

and management not only for surveillance and enforcement but also for strategy, business decisions, and risk and emergency response.

A training and certification scheme should target the auditors and inspectors responsible for monitoring compliance and initiating enforcement actions. A separate training, continuous professional development, and certification scheme may also be developed for grader and laboratory analysts. A proficiency testing scheme may also be needed for food testing laboratories.

In addition, ISR schemes often include a well-controlled **certification and/or branding (labeling)** scheme to differentiate member products in the market. Branding/labeling communicates companies' compliance to consumers, helping consumers make better-informed decisions, and, ideally, enhances the company's market position as well.

Considerations for ISR – What Should We Keep in Mind?

Key Considerations

Making ISR work for East African staple food value chains will not be an easy task. However, private-sector stakeholders say they are ready to invest in self-regulation. Based on conversations with these and other stakeholders about what would be feasible, scalable, and sustainable, Policy LINK kept in mind the following key considerations when developing this solution:

- **Tailor solutions to the value chain and country dynamics.** Each country has a different regulatory structure and level of market maturity. Therefore, each country will need its own ISR scheme, though these schemes should be coordinated regionally.
- **Identify entry points based on each country's institutional framework and value chain dynamics.** Target the value chain segments most affected by the current regulatory system and/or segments where an effective intervention is likely to have an optimum impact on the rest of the value chain.
- **Establish a clear value proposition for each stakeholder group.**
- **Invest in a capacity-building strategy** that will enhance the capacity of businesses to meet the established standards, prepare the private sector for self-regulation, and build the confidence of regulators to cede certain functions to the private sector.
- **Ensure cost-effectiveness.** ISR should be efficient yet effective, i.e., add as little cost as possible to individual businesses.
- **Level the playing field for ISR subscribers.** The ISR scheme will need to protect its subscribers, particularly the early adopters, through tax incentives (with government support), waivers, and branding, among other solutions.
- **Incorporate a collaboration structure with government regulators.**

Country Readiness

Policy LINK and EAGC assessed Kenya, Tanzania, and Uganda against each ISR element to ascertain their readiness for ISR and inform the development of suitable schemes for each country (see Table I).

Table I. Summary of the Status of Key ISR Building Blocks in each Country

ISR Element	Kenya	Tanzania	Uganda
Rules or codes of practice to guide industry actions around food safety	All countries have adopted the EAS for Cereals and Pulses (and products derived from these commodities), and EAS for Sampling and Testing Methods		
	No industry-wide code of practice, though the Kenya Cereal Millers Association (CMA) has a code of practice for its members	No industry code of practice for staple foods	No industry code of practice for staple foods
Facilities and equipment	At least 16 private sector and four public labs are available.	At least eight private sector and four public labs are available.	At least two private sector and four public labs are available.
	There are concerns about the cost of laboratory services. However, these costs are expected to decline as more players use the services through the ISR scheme.		
	Storage infrastructure is sub-optimal.		
Audit and surveillance schemes	The closest thing to a private sector scheme is EAGC's warehouse certification scheme, which is limited to warehouses.		
Existing skills and capacity building	Generally, there is limited capacity, expertise, and resources across the value chain. Larger associations like CMA and EAGC have training programs for their members. EAGC has developed a regional training curriculum and certification scheme for graders, warehouses, and warehouse operators that can support the eventual ISR schemes.		
Institutional arrangements	Existence of apex private sector associations (Agriculture Sector Network. EAGC), and value chain associations (the Cereal Growers Association, CMA, the United Grain Millers Association).	EAGC and the Agricultural Council of Tanzania (ACT) are the only known apex private sector associations of the staple food sector. There are no known value chain associations.	EAGC and the Grain Council of Uganda are the main apex private sector associations of the staple food sector. Other associations exist but are far less developed.

Proposed Models of ISR for Each Country

Kenya, Tanzania, and Uganda each have different value chain dynamics, regulatory frameworks, maturity models, and consumers. As such, each country needs its own bespoke ISR framework, as is proposed below:

- Kenya** – the model centers on formally established small/medium and large millers. Associations representing millers (or coalitions thereof) are expected to form an SRO that will govern all aspects of the ISR framework. Organizations like the Cereal Millers Association (CMA) can work with the EAGC to develop and implement the framework, building on the work CMA is already doing.
- Uganda** – the proposed model centers on processors (millers) and traders (primarily exporters) since these players have the most to gain from self-regulation.

- 3. Tanzania** – the model is similar to Uganda’s in that it centers on processors and traders (primarily exporters). This model, however, has strong elements of co-regulation where the government would provide the standards and certification infrastructure since staple food value chains are less mature and organized than in Kenya and Uganda.

Millers and traders, which have the potential to influence behavior upstream along value chains, are good entry or leverage points. They also offer the best option for introducing commercial (and, thus, more sustainable) incentives for improving practices along the value chains. The EAGC can convene stakeholders at national and regional levels, and work with associations in each country to establish the SRO mechanisms.

All models will need government support, particularly in the beginning. This is because of the government’s role in regulation and because governments are the largest buyers of staple foods in the region. As such, all three models provide for state regulators to oversee self-regulation schemes through joint technical committees.

Anticipated Impacts in the Value Chain

In each of the three countries, subscribers would be expected to regulate their supply chains, establishing a structure for integrating backward compliance and/or controlling the quality of raw materials. This will entail rejecting poor-quality grains that present a food safety risk. In the long term, as SRO membership and consumer awareness grow, this will incentivize suppliers (farmers and traders) to change their behaviors and adopt appropriate practices to ensure food safety.

Sustainability Considerations

While effective SRO schemes are self-sustaining, stakeholders may need donor support to set up the SRO and operationalize the scheme until it matures. Some of the support from development partners may include: advice on establishing the SRO and developing detailed guidelines and specific rules or standards for the SRO’s members; facilitating dialogue with governments to ensure broader buy-in across the value chain; provision of seed funding to help operationalize the ISR scheme through the SRO; and supporting the establishment and strengthening of food testing infrastructure and expertise.

In the medium- to long-term, the SRO can sustain itself through fees e.g., for inspections, certification, capacity building, and dispute resolution.

Improvements in the broader enabling environment resulting from the ISR also contribute to viability and sustainability. For example, ISR is expected to develop or enhance new business opportunities with respect to food safety e.g., for existing third-party laboratories and inspection companies.

Coordination Considerations

The following aspects of ISR need to be coordinated at the regional level:

- Developing a harmonized capacity-building process (especially for technical aspects of food safety).
- Facilitating mutual recognition of other countries’ ISR schemes to reduce trade barriers.
- Establishing a regional dispute resolution mechanism to address any trade disputes resulting from the implementation of ISR schemes.
- Establishing a regional learning and dialogue forum on food safety¹⁶.

¹⁶ The forum could be anchored at the EAC Secretariat and co-hosted with organizations championing the ISR schemes.

- Conducting regional audits and putting in place a quality assurance system.
- Facilitating and coordinating regional responses to emergency cases.
- Conducting regional surveillance and establishing a data-sharing platform.
- Developing a regional labeling and/or certification scheme for products from compliant companies belonging to the ISR scheme.

Roadmap: How Do We Implement ISR?

In this section, Policy LINK offers a general roadmap that countries can adapt to meet their needs¹⁷. In Kenya, the EAGC, CMA, and United Grain Millers Association (UGMA) are the frontrunners for leading implementation. For Uganda and Tanzania, the EAGC will need to work with local industry associations of millers and traders, as these are not as organized.

The Tanzanian and Ugandan models are close to a co-regulation mechanism in the initial phase and, as such, in Tanzania, the Small Industries Development Organization (SIDO) and Tanzania Bureau of Standards (TBS) will work closely with the EAGC. In Uganda, The Grain Council of Uganda (TGCU) will work with the EAGC.

Lay the Groundwork for ISR

To establish a foundation for ISR, industry players will need to socialize the concept. Though each country will need to decide its own approach, the activities are important:

- Map stakeholders and develop key messages for each stakeholder group.
- Host bilateral meetings between ISR promoters and key partners, such as regulators, government ministers, and industry leaders.
- Develop the business case for the ISR schemes (country and region) that can be used to solicit donor support.
- Convene wider stakeholder forums at national and regional levels to popularize the ISR concept and help it gain traction.
- Use media to communicate food safety concerns and promote ISR as a solution.

Develop the ISR Scheme Concept

Value chain actors will need to further develop the concepts through stakeholder consultations. In addition to securing concrete stakeholder commitments, they will need to agree on the industry organization(s) expected to take charge of the ISR scheme, the roles of other stakeholders (including private sector associations) in its implementation, and the roles of government regulators.

¹⁷ The general roadmap is based on Castro's "Behavior and Limitations of Industry Self-Regulation." Castro, D. (2011). *Benefits and Limitations of Industry Self-Regulation for Online Behavioral Advertising*. Retrieved from [Retrieved from https://itif.org/files/2011-self-regulation-online-behavioral-advertising.pdf](https://itif.org/files/2011-self-regulation-online-behavioral-advertising.pdf)

Establish the ISR Scheme

Developing the specific arrangements, rules, codes of practice, guidelines, and schemes will bring ISR to life. These activities should be led by country-level value chain players that include food safety experts, government regulators, research institutions, and development partners. They will be responsible for:

- Engaging appropriate experts to help develop the operational aspects of the ISR scheme.
- Organizing learning visits to institutions or jurisdictions that have successfully implemented ISR.
- Regularly consulting experts and stakeholders to validate and refine the operational aspects of the scheme.
- Developing a strategic plan, organizational structure, and a resource mobilization plan for the SRO.

Conduct a Cost-Benefit Analysis of the Designed ISR Scheme

Developing and implementing ISR will have cost implications for value chain players. The cost-benefit analysis will focus on technical feasibility and financial viability. Findings can inform fine-tuning of ISR scheme design to ensure optimal feasibility, viability, and long-term sustainability.

Develop a Financial Sustainability Plan for the ISR Framework

Taking into account the sustainability considerations described above, the SRO should develop a financial sustainability plan that outlines its income-generating activities: These activities include:

- Membership fees – all subscribers must pay membership fees, which cover administrative services and generate income.
- Service subscription – based on the various rules and regulations set in the code of conduct under the ISR, various services can be provided by the SRO at affordable rates (but which also enable the SRO's financial sustainability).
- Partnerships – the ISR framework will give rise to various partnerships with the private sector, resulting in another avenue for income generation through linkages programs, advertising, and other services.
- Resource mobilization – this will involve funding and donations by development agencies for food safety promotion activities to ensure that the whole value chain subscribes to the ISR framework through awareness campaigns, capacity-building programs, and value propositions.

Implement the ISR Framework

The SRO will spearhead the implementation of the ISR framework and ensure that all subscribers follow the rules and regulations.

The implementation process will require that the SRO: develop a collaboration framework (e.g., how to work with the government and private sector); Mobilize and onboard value chain players; Build the capacity of value chain actors and create awareness of the framework; Ensure uptake of provisions; Oversee auditing; and Continuous training, monitoring and evaluation.

5. Conclusion

For many years, assuring food safety in Kenya, Tanzania, and Uganda has been the preserve of the state. The private sector, as the main actor in staple food value chains, must take greater responsibility for assuring food safety. Greater ownership and responsibility for food safety would reinforce and complement existing state regulatory oversight. This is the core objective of establishing ISR.

As discussed in this paper, each country will need its own ISR framework. At the same time, however, all three models will require coordination at a regional level.

The road to actualizing ISR is long and entails building broad support for the ISR concept, establishing an SRO, developing the detailed ISR scheme, understanding its costs and benefits, and developing a financial sustainability plan.

Ultimately, the success or failure of the proposed ISR schemes will depend on the degree of stakeholder buy-in and commitment; the strength of the business case for each stakeholder; the strength of the strategy for engaging stakeholders and communicating the value proposition of ISR; and the pool of resources made available to bring the ISR schemes to life.

At an operational level, the ISR schemes will need to guarantee four things to stakeholders:

- Credibility, whereby the performance of the schemes meets stakeholder expectations.
- Integrity, whereby the schemes are secure, free of undue influence by internal or external stakeholders, and have appropriate checks and balances and dispute resolution mechanisms.
- Transparency, whereby stakeholders have a view into the operations and performance of the schemes, have a platform to share their expectations and lessons, and can influence internal (ISR) and external (public) policies transparently.
- Efficiency, whereby the ISR schemes do not add excessive or unnecessary costs to their subscribers. The benefits of participating in the scheme should significantly outweigh the costs.

ISR holds great promise for strengthening food safety in East Africa. Done properly, these schemes can deliver sustainable economic and public health outcomes.