APTECA–MBS Stakeholders' Workshop Report & Way Forward

Co-Regulation for Aflatoxin Risk Management in Malawi

Date: 5 November 2025

Venue: Bingu International Convention Centre (BICC), Lilongwe, Malawi

Organizers: Malawi Bureau of Standards (MBS),
Malawi Grain Traders & Processors Association,
Lilongwe University of Agriculture and Natural Resources
APTECA (Texas A&M AgriLife Research)

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1. Introduction

Aflatoxin contamination poses a significant threat to Malawi's food safety, public health, and agricultural trade, especially affecting maize and groundnut value chains (Njoroge et al. 2016). Despite the presence of national standards developed by MBS and accredited laboratories, industry compliance remains inconsistent. The APTECA program, in partnership with MBS, MGTPA and LUANAR, has made measurable progress in aflatoxin risk management. However, the need for a robust, collaborative aflatoxin risk management system is clear. This report summarizes the proceedings and outcomes of the APTECA–MBS Stakeholders' Workshop and presents concrete action items and a way forward for adopting a co-regulatory model in Malawi.

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2. Workshop Objectives and Structure

The workshop aimed to:

- Evaluate stakeholders' understanding of existing food safety regulatory landscape
- Assess the readiness and capacity of the food industry to participate in a co-regulatory system.
- Establish a foundation for developing a structured, practical roadmap for implementing a co-regulatory aflatoxin risk management model in Malawi.

The event featured three facilitated group discussions focusing on 3 topical matters including:

i. The current food safety regulatory landscape
ii. The applicability of co-regulation in Malawi
iii. Industry readiness for co-regulation

Thirty-Four participants, representing Industry, regulators and government officials were in attendance and were engaged in group discussions and presented their findings in a plenary session.

Session 1: Understanding the Current Food Safety Regulatory Landscape

Consolidated Group Responses

1. How would you describe the current food safety regulatory system in Malawi, particularly for maize and groundnut products?

The food safety regulatory system in Malawi is established and legally supported, with standards in place for maize and groundnut products, including aflatoxin limits.

However, its effectiveness is inconsistent. Enforcement is stronger in the formal sector but largely weak in the informal markets, which handle a significant portion of food trade.

While regulatory institutions conduct inspections and monitoring, the system is perceived to be largely enforcement-driven, with limited emphasis on training, awareness, and preventive capacity building. There is also no widely implemented national food safety policy, and some stakeholders are unaware of its existence.

The system shows potential and is helping reduce hazards in the formal sector, but gaps in coordination and uneven enforcement limit its overall impact.

2. What are the key government institutions and private actors involved in managing aflatoxin risks? How do they currently interact?

Key Government Institutions:

- Malawi Bureau of Standards (MBS)
- Ministry of Health (MoH) – inspectors/auditors
- Ministry of Agriculture (MoA) and extension workers
- LUANAR (testing and research)
- Chitedze Research Station
- Agro-Input Suppliers Limited (AISL)

Private Sector & Development Partners:

- MGTPA
- ICRISAT
- IITA
- SGS Malawi
- NASFAM – testing laboratory

- Pyxus - testing laboratory

Interactions:
Stakeholder interactions exist mainly through collaborative projects and standards development processes, especially involving MBS and research institutions. However, collaboration is largely project-based and event-driven, with no permanent multi-stakeholder coordination platform. Most processors interact directly with testing institutions of their choice, with MBS being the most preferred due to reliability and trust.

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3. What are the main strengths of the existing regulatory system?

The system demonstrates several strengths, including:

- Availability of accredited and competent laboratories (MBS, LUANAR).
- Technically skilled staff and inspectors.
- Multi-stakeholder participation in standards development.
- Active market surveillance and inspections by MBS and MoH.
- Strong regulatory presence that motivates industry compliance through inspections, recalls, and sanctions.
- MBS is viewed as reliable, approachable, and supportive, especially in corrective actions.
- Growing infrastructure, including plans to expand laboratory capacity in Lilongwe.

4. What are the major weaknesses or gaps (enforcement, coordination, capacity, compliance costs)?

Major gaps include:

- Weak and inconsistent enforcement of aflatoxin-specific testing, despite it being a standards requirement.
- Overfocus on the formal sector, while informal markets remain largely unregulated.
- Limited coordination and communication among institutions.
- Resource and capacity shortages, especially at district council levels.
- Lack of trained food safety experts in local government.
- Limited number of agricultural extension workers.
- Inconsistent access to test kits and consumables, worsened by foreign exchange constraints.
- At times, compromised inspections that weaken system credibility.

- Long turnaround times for product certification and logo issuance, reducing industry motivation.

5. How do these weaknesses affect food safety outcomes and consumer trust?

These weaknesses result in:

- Poor aflatoxin risk management, allowing contaminated food to reach consumers.
- Persistent public health risks and long-term adverse health impacts.
- Limited routine testing due to lack of consumables and equipment.
- Low public awareness of aflatoxin hazards, meaning consumer trust, is not strongly influenced by safety.
- Occasional inspection compromises that could erode trust where informed consumers exist.

Overall, consumer trust is not significantly strengthened because most consumers are not fully aware of aflatoxin risks, while informed stakeholders recognize inconsistencies in enforcement.

6. What lessons can be drawn from previous or ongoing food safety initiatives in Malawi?

Key lessons include:

- Food safety is critical for public health and trade competitiveness.
- Integrated, multi-stakeholder approaches are more effective than isolated efforts.
- Sustainable systems require industry investment and long-term supplier commitment.
- Continuous communication and coordination are essential for system success.
- GMP, GHP, and HACCP implementation are essential foundations for safe food production.
- When companies invest in food safety, consumer confidence and business performance improve.
- APTECA and similar programs demonstrate the value of structured verification, training, and regional harmonization.

Session 2: Consolidated Responses - Exploring Co-Regulation & Industry Readiness

7. What does the term "co-regulation" mean in the context of food safety?

Co-regulation is understood as a shared governance system in which government and the private sector jointly take responsibility for food safety. It involves:

- Government setting and enforcing standards.
- Industry implementing and complying with those standards.
- Ethical collaboration to protect consumers.
- Mutual accountability between public and private actors.

Stakeholders agreed that co-regulation improves efficiency, trust, and shared ownership of food safety outcomes.

8. What existing capacities can the food industry build upon to participate effectively in co-regulation?

Stakeholders identified strong foundational capacities that can support co-regulation, including:

- Existing company quality management systems (GMP, GHP, basic HACCP elements).
- Skilled and trained personnel in processing facilities and laboratories.
- Availability of accredited testing facilities (e.g., MBS, LUANAR).
- Existing standards and specifications for maize and groundnuts.
- Structured sampling and internal quality checks already practiced by many processors.

However, participants emphasized the need for:

- Easier access to test kits and consumables within Malawi
- Strengthened capacity of district and city councils to support enforcement.

9. What major gaps or constraints might limit industry readiness to comply with co-regulatory requirements?

The main constraints identified across all groups were:

- Financial limitations, especially for routine testing.
- Lack of an operational national food safety policy.
- Foreign exchange challenges affecting the importation of test kits and consumables.
- Short shelf-life of consumables, leading to wastage.
- Limited management commitment in some companies.
- Inadequate platforms for laboratories to benchmark results and compare performance.
- Weak inspection capacity in informal markets.

10. How do market incentives influence industry's willingness to adopt co-regulation?

Market incentives were viewed as a strong driver of adoption, including:

- Access to premium and export markets.
- Higher product prices and improved profitability.
- Stronger consumer trust and brand reputation.
- Differentiation from non-compliant competitors.
- Contribution to national income and improved food safety culture.

Participants noted that industries are more willing to invest in compliance when clear commercial benefits exist.

11. What support or capacity-building is needed from government and development partners?

Stakeholders recommended the following support measures:

- Development and implementation of a national food safety policy.-ongoing
- Foreign exchange support for importing testing equipment and consumables.
- Tax waivers and incentives for test kits and laboratory materials.
- Strengthening local government inspection capacity, including informal markets.
- Training for:
    - Inspectors
    - Laboratory personnel
    - Millers and processors
- Increased awareness campaigns targeting farmers, millers, and consumers.
- Education of farmers on good post-harvest practices (e.g., proper drying, avoiding adding water to nuts).

Session 3: Assessing the Food Industry's Readiness to Adopt Co-Regulation

Consolidated Group Responses

12. What standards or certifications should be required of laboratory analysts to ensure competence?

Stakeholders agreed that laboratory analysts should meet minimum professional and technical standards to ensure reliable aflatoxin testing. These include:

- Minimum academic qualification of Bachelor's degree in a relevant science field (with MSCE as a minimum entry level where applicable).
- Mandatory participation in Proficiency Testing (PT) programs.
- Registration with recognized professional bodies such as the Laboratory Association of Malawi.
- Specialized technical certifications such as:
    - Aflatoxin Analyst Qualification Training
    - Food Fraud and Food Defense certifications.
- Continuous professional development through training by accredited institutions.

13. Awareness of resources for aflatoxin testing prior to the workshop

Awareness levels varied across groups:

- Some participants were already aware of reference materials, PT programs, and supplier technical support.
- Others had limited or no awareness of these resources before the workshop.

Overall, the workshop significantly improved awareness of:

- Proficiency testing opportunities
- Access to reference materials
- Availability of technical support from test kit suppliers

14. Adequacy of Food Safety Plans among Food Business Operators (FBOs)

Most stakeholders reported that:

- Some Food Business Operators have basic Food Safety Plans in place.
- However, many are unable to fully implement them due to the high cost of routine aflatoxin testing.

- A number of companies do not have documented Food Safety Plans or structured sampling protocols.

Improvements required:

- Formal documentation of Food Safety Plans
- Defined sampling locations and frequencies
- Regular verification and record-keeping systems

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15. Recommended verification mechanisms and responsible institutions

Stakeholders proposed a multi-layered verification system:

Verification Mechanism	**Responsible Institution**
Third-party audits	MGTPA
Market sampling	MGTPA
Regulatory inspections	MBS
Proficiency Testing	Food Industry / APTECA-supported
Record-based verification during inspections	MGTPA

Companies not currently testing should begin routine testing so that inspections can rely on verifiable laboratory records.

16. How should aflatoxin data be shared (format, frequency, recipients)?

A blended data-sharing model was recommended:

- Format:
    - Aggregated data displayed as trend graphs and summary tables
    - Avoid sharing sensitive company-specific raw data publicly
- Frequency:
    - Quarterly reporting
- Recipients:
    - Regulators (MBS, MoH)
    - LUANAR/APTECA
    - MGTPA
    - National stakeholder platforms such as the National Codex Committee

In addition, use of the APTECA / compliance logo was supported as a public-facing indicator of compliance rather than publishing detailed results.

17. Internal budget considerations to sustain co-regulation

Stakeholders recommended that companies should make dedicated internal budget allocations for:

- Laboratory operations
- Routine aflatoxin testing
- Inspector visits
- Staff training and refresher courses

Some groups suggested allocating 1–5% of annual company profits specifically to food safety and compliance activities.

18. Cost-sharing model between industry and government

To ensure sustainability, the following structure was proposed:

- Government support:
    - Tax incentives and waivers for test kits and consumables
    - Subsidization of part of testing costs as a public health responsibility
    - Training programs that include both regulators and processors
- Industry contribution:
    - Participant fees
    - Investment in internal testing systems
    - Budget allocations for verification services

19. Willingness to pay for essential services

Most industry participants expressed clear willingness to pay for:

- Proficiency Testing (PT)
- Reference Materials (RM)
- Third-party verification services

Final decisions were noted as subject to internal management approvals in some companies.

20. Perceived affordability of aflatoxin risk management

Stakeholders' views were:

- Generally considered "somewhat affordable" when compared against the commercial and public health benefits.

- Some companies indicated they were already leveraging existing internal quality systems, which reduced additional costs.

21. **Principal motivators for private sector participation**

Key motivators identified were:

- Use of a compliance logo for marketing and brand recognition
- Access to new domestic and export markets
- Ability to command higher product prices
- Protecting public health
- Corporate social responsibility
- Increased profitability from export markets and premium buyers

22. Recommended institutional arrangements for effective co-regulation

Stakeholders supported the following institutional framework:

- Establishment of a formal Industry Advisory Group.
- Creation of Memoranda of Understanding (MoUs) between:
    - MBS and MGTPA
    - MGTPA and its members
    - LUANAR as a verification partner
- MBS to act as the lead technical regulator.
- LUANAR to serve as the ISO/IEC 17025–accredited verification laboratory.
- MGTPA to manage industry coordination and oversee logo use, supported by strict rules and penalties.

23. Agreed Way Forward

Stakeholders recommended:

- Formation of a multi-stakeholder advisory group led by MBS and MGTPA.
- MGTPA to coordinate information sharing on:
    - Access to test kits
    - Tax waivers
    - Forex access
    - Policy development (MoH, MoA, MoT).
- APTECA to support the system by providing reference materials and PT free of charge in Year 1.
- Development of clear criteria for logo use, managed by MGTPA and verified by MBS.
- MBS to maintain responsibility for verification of aflatoxin test data.

Conclusion

The APTECA–MBS Stakeholders' Workshop marks a critical step toward a coordinated, efficient, and industry-supported aflatoxin control system in Malawi. Stakeholders support co-regulation as a practical and sustainable model for achieving food safety, trade competitiveness, and consumer protection. With strong collaboration, clear responsibilities, and transparent communication, Malawi is poised to replicate and surpass the successes seen in other APTECA countries.