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Aflatoxins: A Threat to Competitiveness of EAC Agricultural Produce and Products in the Domestic and International Markets

EXECUTIVE SUMMARY

In the EAC Region, food crops susceptible to aflatoxin contamination include maize, groundnuts, cashew, and sesame. Products of those crops are consumed or traded in large quantities.

The potential economic and trade-related negative impacts of aflatoxin-contaminated products in domestic and international markets can be high.

The contribution of market losses to the total economic impact depends on the extent to which the domestic market differentiates aflatoxin-contaminated products. If the domes - tic market does not differentiate aflatoxin-contaminated products, the market losses from the contamination will be minimal. Among EAC Partner States, in Kenya, the aware ness about aflatoxins is high, signaling that domestic market impact will be higher than in other countries.

The EAC Partner States are losing trade and general market accessibility due to inability to sell aflatoxin-contaminated foods. Aflatoxins are barriers to trade, notwithstanding the health implications to the consumer upon sustained consumption of aflatoxin contaminated foods above the tolerable levels. Similarly, livestock such as poultry, pigs, and cattle are also impacted negatively by aflatoxins.

In order to address the impacts of aflatoxin-contaminated produce to trade, this policy brief recommends that EAC Part- ner States provide: adequate human and financial resources to enforce aflatoxin standards in conjunction with Sanitary and Phytosanitary (SPS) measures; put in place an enabling environment to attract informal cross border traders to confidently engage into formal trade systems; a harmonized testing protocol for use by relevant stakeholders along the food value chains; and a credible “aflatoxin-safe” certification that will expedite movement of intra-regionally traded aflatoxin prone commodities and products to reduce time spent in border clearance procedures.

THE PROBLEM

Trade in aflatoxin contaminated agricultural produce and products above EAC permissible levels can result into severe economic losses.

Aflatoxin-contaminated groundnut kernels

The crops commonly affected by aflatoxins include cereals (maize, sorghum, millet, rice, wheat), oil seeds (groundnuts, cottonseed, sesame), root crops (cassava), nuts (cashews, Brazil nuts, pecans, walnuts, almonds, and pistachios), spices (particularly chillies), and products made from these crops. Market losses in trade can be viewed into both domestic and international market losses. In the international market, the impact results from inadmissibility or rejection of products by the importers and from inability to compete with providers of aflatoxin-safe crops.

In the domestic market, the direct economic impact of crop aflatoxin contamination results mainly from a reduction in marketable volume (and potentially higher price), revenue loss by domestic producers or distributors, and losses incurred from livestock disease and mortality.

Among the EAC Partner States, awareness about aflatoxin contamination is high in Kenya, signaling that domestic mar- ket impact will be higher than in other Partner States. None - theless, there is no standalone policy on aflatoxin prevention and control among EAC Partner States, hence there are calls for a need to develop a harmonized approach on prevention and control of aflatoxin along the value chains.

SIZE OF THE PROBLEM

The current EAC harmonized standard for maximum allow-able levels of aflatoxin in food crops is 10 ppb. There are cases of agricultural produce being destroyed when higher concentrations have been detected. For example; in 2014, 13,992 metric tons of aflatoxin contaminated maize were destroyed in Kenya (Figure 1). The consignment could neither be consumed nor traded due to contamination levels above the tolerable national levels (MoH/MoALF Kenya 2014).

Enforcement of regulations and standards on aflatoxin levels in crops within the EAC Partner States is inadequate and therefore the magnitude of the problem is not known. However, if the regulations are enforced domestically, the estimated overall loss for the EAC Partner States based on the overall production is thought to be high. Kenya and Tanzania each produce large quantities of maize (3.4 and 4.3 million metric tons, respectively). In the highest scenario of prevalence of aflatoxin in maize, over 2 million metric tons of maize would be lost in each of these countries (FAOSTAT, 2011).

In 2011, maize prices in the EAC Partner States ranged from $283 to $406 per metric ton (FAOSTAT) . The largest impacts were for Uganda, which had the highest maize exports in 2011, followed by Kenya. Trade values lost in Uganda ranged from $1.7 million to $10.3 million. In Kenya, trade values lost ranged from $656,700 to $3.9 million. In Tanzania, the trade values lost ranged from $ 218,100 to $1.3 million while in Burundi and Rwanda the trade values lost ranged from $9,400 to $56,400 and $12,700 to $76,200 respectively (UN Comtrade 2011).

CAUSE OF THE PROBLEM

Inadequate regulatory frameworks, including poor enforce - ment and coordination mechanisms, and noncompliance to staple food standards are the main causes of the failure to access markets. This may be associated with low level of awareness and poor regulation of domestically traded prod-ucts. In addition there are multiple actors in enforcing the set regulations. To address these issues, there is the need to identify the roles and strategic linkages between the actors. Involve - ment of the private sector and capacity building of the players along the value chains on Good Agricultural Practices should be enhanced in order to reduce the volumes of contaminated produce and hence safe food commodities accessing the markets.

POLICY OPTIONS/ RECOMMENDATIONS

Policy Option 1: Provide adequate human and financial resources at national and regional levels to enforce aflatoxin standards in conjunction with Sanitary and Phytosanitary (SPS) measures. There is the need for each Partner State to allocate budget lines for aflatoxin prevention and control interventions.

Most failures result from low consideration to provide human and financial resources to enable the translation of policies and commitments into actions.

Policy Option 2: Partner States should invest in sensitization of business operators on the benefits of formal trade system. This will attract informal cross border traders to confidently engage into formal trade systems.

Over half of domestic and cross border trade are conducted informally and is unregulated.

Policy Option 3: Put in place a harmonized testing protocol for use by relevant stakeholders along the food value chains.

There are many actors with different mandates who are involved in regulating foods and food products. These actors use different procedures and processes in determination of the safety of the commodities. As such the process becomes cumbersome and unstandardized.

Policy Option 4: Develop a credible "aflatoxin safe" certification mechanisms/procedure that will expedite movement of intra-regionally traded aflatoxin prone commodities and products to reduce time spent in transiting borders.

Certification and labelling of aflatoxin tested foods, as "aflatoxin safe" will assist regulators in facilitation of cross border trade. Further, labeling will enable the consumers to make informed choices.

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