# Africa Trade Policy Notes


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## Regional Quality Standards for Food Staples in Africa: Harmonization not Always Appropriate

### HIGHLIGHTS

**HARMONIZED REGIONAL STANDARDS...**
rather than promote regional trade, standards may result in new inspection and certification requirements that add to the costs of trade and can be set at levels that are too high for small farmers to meet or for poor consumers to afford.

**MUTUAL RECOGNITION AND EQUIVALENCE AGREEMENTS...**
are alternatives to harmonization in the WTO SPS Agreement and could go a long way to improving the regional trade environment.

**ENSURING QUALITY IN DOMESTIC MARKETS...**
requires more attention if regional trade agreements are to have practical impact on consumers.

**WORLD BANK**

One approach to improve the trade environment for food staples that has gained considerable momentum and widespread support in recent years has been to harmonize quality standards across countries and with international ones. Various policy papers on commodity trade in Africa have pointed to the lack of consistency in quality requirements as a non-tariff barrier and called for the harmonization of standards as a prerequisite for improved trade[1]. The East African Community has been especially active in pursuing harmonization with international standards in an effort to facilitate trade between Member States and ensure global markets remain open to EAC exporters. Discussions are now underway aimed at extending harmonized standards to COMESA and SADC as part of an agreement to establish a tripartite free trade area between the three regional blocks.

Despite the apparent advantages of having a harmonized standards regime, this approach to trade facilitation can have several important costs. In the first place, compliance with standards may result in new inspection and certification requirements that add to the total costs of trade and undermine competitiveness of food staples. Even where harmonization is intended to eliminate duplicate inspections by the exporting and importing country, this cannot always be achieved due to differences in certifying capacity. There is also a risk of setting standards too high for smallholder farmers to meet, or at a level that consumers do not really require or cannot afford.

This note looks at the tradeoffs of different approaches to regional standards management. Despite a widespread perception that standards harmonization is required by the WTO SPS Agreement, other trade facilitation instruments are allowed that can be easier to negotiate and have

[1] See for example: RATES 2003, EAC 2006, Nyoro, et. al. 2007, COMESA 2009, COMPETE 2010, EAC 2010, COMESA 2011.

more immediate benefit to African countries. Standards harmonization can also be pursued in a variety of ways. Following a review of different policy instruments, the note looks at two recent experiences with standards harmonization including the EAC's move to adopt mandatory standards for food staples and voluntary standards system being set up by SADC countries for seed.

## Standards and Trade Facilitation

Whether viewed as a development opportunity or trade barrier, it is clear that proliferation of standards represents a significant challenge to African countries. The ability to comply with product standards has become an important factor in determining access to markets and, more broadly, the capacity of countries to export and involve smallholder farmers in commercial supply chains. This is true for both mandatory regulations set by governments to meet their objectives regarding health, safety, and the environment, and for market-driven standards, set within the private sector.

Since entering into force in 1995, the SPS Agreement of the World Trade Organization (WTO) has been the starting point for regional SPS policy. The SPS Agreement reaffirms and elaborates the rights of WTO Members to adopt and enforce measures to safeguard human, animal, and plant health and life and establishes procedures for the use of SPS measures that minimize any undesired negative consequences for trade. To achieve these aims, the SPS Agreement offers alternative instruments to Members that include harmonization, equivalence agreements, and mutual recognition agreements. Choosing the right instrument can make an important difference to how nations benefit from trade and opportunities to expand the markets for food staples.

The WTO SPS Agreement encourages Member States to harmonize their SPS standards with international ones but stops short of making this a mandatory requirement. The basic rule is that standards must be science-based, which may be proven either by applying international standards or through risk assessment. The emphasis on harmonization therefore arises from the role it plays in the legal defense against potential challenges to SPS measures. A WTO Member can avoid the burdensome requirement of having to provide a risk assessment by harmonizing their standards with international ones thereby making harmonization a popular choice when this may not be the most efficient instrument or even a feasible one.

Despite the perceived advantages of harmonization, this approach has been the subject of much controversy. In the first place, there is considerable misunderstanding about the legal status of harmonization in the SPS Agreement whereby many capacity-building projects have believed that harmonization of domestic standards with international ones is compulsory. This misperception has often led governments and the donors that support them to view harmonization as a goal in itself rather than a means to an end. Consequently, many standards in Africa have been copied almost verbatim from the Western ones with little or no consideration for the impact of the regulations or for the capacity of producers and inspection agencies to comply with the new requirements.

The use of harmonization in developing countries is also controversial because international standards primarily reflect developed country conditions. African countries have very different SPS problems than developed countries do and only limited capacity to tackle their SPS problems. Many international standards, for example, assume the existence of a conformity assessment infrastructure that may not exist in developing countries and/or can only be established for a high cost.

Moreover, in developed countries, domestic standards are often close to, if not exceeding, the international ones meaning that harmonization is mainly a question of making minor adjustments to match international norms. In Africa, on the other hand, making domestic standards equal to the international ones can demand a revolutionary new approach to standards management with considerable upgrading of inspection and public outreach capabilities for the new standards to work. Without basic awareness and promotion of good practices for hygiene and safety, for example, higher-level investments in standards diplomacy or development of advanced laboratory capabilities can have little practical benefit and even be counterproductive.

Standards harmonization therefore carries important risks. Harmonized standards are of little value if they cannot be implemented. Worse, advanced standards themselves can be used as a non-tariff barrier if full compliance cannot be verified. There is also a risk of excluding small farmers and traders from the market if they are unable to comply with the new standards and/or if the standards raise the price of delivering a compliant product beyond the level consumers can afford. A good example of these problems is the case of the recently harmonized EAC standards for dairy.[2]

Equivalence agreements, whereby trade partners recognize that each country's respective standards, despite being different, achieve similar levels of protection are an alternative to harmonization in the WTO SPS Agreement. Equivalence can be achieved in a variety of ways, including formal agreements to recognize the equivalence of SPS measures, agreements on equivalence for specific products, or ad hoc agreements on the equivalence of specific technical aspects of certain SPS measures. System-wide equivalence can be complex to negotiate and achieve, but product-specific equivalence is much less burdensome and can be a good way for developing countries to achieve acceptable levels of SPS protection.

Mutual recognition agreements are a third trade facilitation instrument provided for in the WTO SPS Agreement whereby two countries may agree to accept certain aspects of each other's SPS measures. These aspects need not be the same (i.e. be harmonized) or equivalent (i.e. result in identical protection levels), yet both parties still agree to accept the trade of goods regulated by these different systems. Often such acceptance is used in situations where differences in national regulatory measures and objectives are considered to be less important than trade objectives. Consequently, mutual recognition is less demanding to negotiate and can be more expedient and effective than harmonization or equivalence in facilitating trade. In practice, mutual recognition agreements are most likely to be established between countries that are in some kind of political or legal association with each other and often occur between neighboring countries with a long tradition of trading food and other SPS-regulated products. The case of Vietnamese seafood exports to the EU, however, is a good example of how mutual recognition can be used to improve developing country exports even with very advanced and far away markets (see Box 1).

### EAC Standards for Food Staples

In the East Africa Community, a decision was made to develop harmonized standards for food staples and other products based on international best practice. Table 1 summarizes the national quality standards for maize grain in seven African countries before the EAC harmonization and shows how each country had different tolerances for moisture content, Aflatoxin, and damaged or discolored grains among other factors.

[2] See Jensen and Keyser, 2010.

**Box 1: Mutual Recognition: The Case of Vietnamese Seafood**

The case of Vietnam's fishery exports to the EU is a success story. In this case, trade facilitation was pursued by means of a technical negotiation between WTO Members aimed at mutual recognition. The distinguishing factors in this case are the compliance of Vietnam's fishery exports with the applicable EU requirements, and the recognition by the EU of the reliability of Vietnam's authorities to certify compliance for products coming from approved processing plants. Vietnam's ability to export quality products that meet EU standards (i.e. stricter standard than Vietnam's domestic standards) therefore has not been obtained through harmonization of developing country standards to the international recognized ones, but by meeting EU standards and negotiating mutual recognition.

Domestic fishery production in Vietnam is, to a large degree, still based on lower national standards. This is evident in domestic supermarkets where EU ("export quality") fishery products are occasionally sold at a premium over domestic produce, which is still safe for consumption but considered sub-standard. This situation is deemed to match Vietnam's developmental needs best. The Vietnamese solution takes into account Vietnam's difficulties of enforcing strict standards domestically while allowing the beneficial effect of a progressive (export-driven) increase of domestic quality through the upgrading of processing techniques, the application of stricter standards, and the appreciation and affordability of better quality by local consumers to occur. In this case, trade facilitation through mutual recognition appears to have been more successful than harmonization in fulfilling the key objectives of standardization: consumer safety, better marketability, higher quality, sustainable development, and greater trading opportunities.

**Source:** Jensen and Vergano, 2009

Table 1: National Maize Quality Specifications before EAC Harmonization (circa 2003)

| | Kenya | Tanzania | Uganda | Malawi | Zambia | Zimbabwe | Ethiopia |
|---|---|---|---|---|---|---|---|
| Moisture content (maximum) | 13.5% | 14% | 13% | 14% | 12.5% | 14% | 13% |
| Aflatoxin (maximum) | 10ppb | 10ppb | 10ppb | 3ug/kg | - | - | - |
| Foreign matter | 1% | 0.5% | 1% | 2.6% | 1.5% | 2% | 0.5% |
| Broken grains | 2% | 2% | 2% | 11.5% | 6% | 6% | 2% |
| Insect damaged grains | 3% | 1% | 2% | - | 5% | - | 3% |
| Rotten, diseased, discolored grains | 4% | 3.5% | 1% | - | 2% | 0.5% | - |
| Other colored grains | 2% | 3% | - | - | 3% | - | 0.5% |
| Live insect infestation | Nil | Nil | Nil | Nil | - | - | Nil |
| Total defective grains | - | 6.5% | - | - | - | - | 8% |
| Immature/shriveled grains | - | - | 1% | - | 1% | - | 1% |
| Fungal damaged grains | - | - | - | - | 1% | - | - |
| Germinated grains | - | - | - | - | 1% | - | - |

Source: RATES (2003).

A regional policy paper produced for the COMESA and EAC Secretariats by the USAID-funded Regional Agriculture Trade Expansion Support Program (RATES), identified these differences as a "technical barrier to trade," and recommended that the standards be harmonized across the entire EAC and COMESA region.

The RATES paper states that the consequences of different standards can be "devastating" for small traders who are likely to be unaware of the differences in each country's requirements and may only learn about the required standards at the border. To support this claim, RATES gives the example of Ugandan maize with 14%

moisture being rejected at the Kenyan border where inspectors insisted on a maximum of 13.5% moisture. While maize with 14% moisture would not have met Uganda's own import requirements of 13% maximum moisture, this difference led to supplies being held up from formal crossings and having to go across in small informal loads by bicycle and other circuitous means.

To address this apparent problem, EAC countries set about to develop harmonized standards for a wide range of staple foods. For each commodity, the process began by reviewing the International Food Standards of the Codex Alimentarius Commission from which changes were made to domesticate the Codex standards to fit the local context.

As shown in Table 2, the EAC has developed standards covering at least 42 staple foods. Of these standards, 29 are already in place while 13 are new standards currently in the final draft stage awaiting formal adoption by the EAC Council of Ministers. Of the 29 existing standards, Table 2 also shows that ten commodity specifications are under review with revised final drafts now awaiting formal approval by the EAC Council of Ministers. In the case of maize, for example, a first set of East African Standards (EAS) were adopted in 2005 while revised Final Draft East African Standards (FDEAS) are now awaiting approval. East African Standards come up for review every five to six years and the preparation of new FDEAS is an ongoing part of EAC standards management.

Table 2: List of Harmonized EAC Standards for Selected Food Products

| Grains and flours | Pulses | Edible oils | Tubers |
|---|---|---|---|
| Maize grains* | Dry beans* | Edible corn oil | Cassava (fresh, sweet) |
| Milled maize products* | Green grams* | Edible soybean oil | Dry cassava chips |
| Wheat grains* | Seed potato | Edible cottonseed oil | Cassava flour |
| Wheat flour* | Chickpeas | Edible sunflower oil | Cassava/wheat composite flour |
| Pearl millet grains* | Cowpeas | Edible groundnut oil | Food grade cassava starch |
| Finger millet grains | Pigeon peas | Edible palm oil | Cassava chips |
| Millet flour* | Dry whole peas | | Method for determination of total cyanogens in cassava |
| Sorghum grains | Lentils | | Seed potato |
| Sorghum flour* | Dry split peas | | Fresh potatoes |
| Rough rice | Dry soybeans | | Potato crisps |
| Brown rice | Faba beans | | Frozen potato chips |
| Milled rice* | Groundnuts (raw and roasted) | | Fried potato chips |

Notes: * indicates East African Standard (EAS) already in place with revised Final Draft East African Standards (FDEAS) now pending adoption and gazette by EAC Council of Ministers (May 2012); indicates newly drafted FDEAS now pending adoption and gazette (no other EAS in place); if no marking, then EAS in place without revised FDEAS pending.

Source: East Africa Standards Catalogue, 2010, FDEAS posted at http://www.eac-quality.net/the-sqmt-community/standardization/dfc.html

For all commodities, the EAS and FDEAS provide detailed specifications for mycotoxin contamination together with various other quality attributes including moisture content, foreign matter contamination, and maximum allowable share of broken, shriveled, or discolored grains. The standards also include detailed hygiene, packing, and labeling requirements together with instructions for sampling and conformity analysis.

According to the Kenya Bureau of Standards (KEBS), a high share of discolored and shriveled grains can sometimes be an indicator of mycotoxin so these variables are included in the standards to provide additional protection beyond the explicit testing requirements for Aflatoxin, Aflatoxin B1, and Fumonisin. Other than the risk of mycotoxins, specific SPS concerns are not covered by the harmonized standards. Depending on the final terms EAC SPS Protocol, which is still under negotiation, phytosanitary certificates stating that each commodity is free from known pest risks will still be required for regional trade.

Table 3 compares the existing 2005 EAC harmonized standards for maize grains with the national standards of Kenya, Tanzania, and Uganda before harmonization, and with the international Codex standard. As shown, the "domesticated" EAC standards are in several cases more demanding than the Codex standard meaning the EAC has not harmonized strictly with international norms. In terms of avoiding confusion at the border, therefore, this approach could still be a risk to importers bringing maize from outside the EAC region. This is particularly true with regard to maximum moisture content where the EAC standard is significantly more demanding than Codex. The EAC standards also include a specification for total defective grain that did not exist in Kenya and Uganda before harmonization and is not part of Codex.

Table 3: Comparison of Current EAC Standards for Maize with National Specifications before Harmonization and Codex

| | 2003 (before EAC harmonization) | | | Current 2005 EAS | | CODEX Standard |
|---|---|---|---|---|---|---|
| | Kenya | Tanzania | Uganda | Grade 1 | Grade 2 | |
| Moisture content (maximum) | 13.5% | 14% | 13% | 13.5% | 13.5% | 15% |
| Aflatoxin (max)<br>Aflatoxin B1<br>Fumonisin | 10ppb<br>-<br>- | 10ppb<br>-<br>- | 10ppb<br>-<br>- | 10 ppb<br>5 ppb<br>- | 10 ppb<br>5 ppb<br>- | Set by CODEX Commission |
| Foreign matter<br>Inorganic matter | 1%<br>- | 0.5%<br>- | 1%<br>- | 0.5%<br>0.25% | 1%<br>0.5% | 1.5%<br>0.5% |
| Broken grains | 2% | 2% | 2% | 2% | 4% | 6% |
| a. Insect damaged grains | 3% | 1% | 2% | 1% | 3% | 7% |
| b. Rotten, diseased grains | 4% | 3.5% | 1% | 2% | 4% | 7% |
| c. Discolored grains | 4% | 3.5% | 1% | 0.5% | 1% | 2% |
| d. Other colored grains | 2% | 3% | - | - | - | - |
| e. Live insect infestation | 0% | 0% | 0% | - | - | - |
| f. Immature/ shriveled grains | - | - | 1% | 1% | 2% | - |
| **Total defective grain (Sum a to f)** | **-** | **6.5%** | **-** | **4%** | **5%** | **-** |
| Filth | - | - | - | 0.1% | 0.1% | 0.1% |

**Source:** RATES, 2003; EAC, 2005; CODEX, 1995.

Next, Table 4 compares the current East Africa Standards (EAS) for maize grains with the revised Final Draft East Africa Standards (FDEAS). Since coming into force in 2005, formal sector traders have complained that the EAS are difficult to meet and impose high costs for sourcing acceptable grain and proving compliance. As long as the maize is fit for human consumption and does not pose any risk to animal or plant health grain traders say they should be free to buy and sell whatever type of product they have a market for. As shown, the FDEAS go some way to relaxing the trade requirements by creating new specifications for Grade 3 maize, but even this level is still more demanding than Codex while the FDEAS also propose to tighten the tolerance for moisture content and introduce new testing requirements for Fumonisin.

Table 4: Comparison of Final Draft East Africa Standards (FDEAS) for Maize with Current Specifications and Codex

| | Current 2005 EAS | | FDEAS (now pending) | | | CODEX Standard |
|---|---|---|---|---|---|---|
| | Grade 1 | Grade 2 | Grade 1 | Grade 2 | Grade 3 | |
| Moisture content (maximum) | 13.5% | 13.5% | 13% | 13% | 13% | 15% |
| Aflatoxin (max)<br>Aflatoxin B1<br>Fumonisin | 10 ppb<br>5 ppb<br>- | 10 ppb<br>5 ppb<br>- | 10ppb<br>5ppb<br>2ppb | 10ppb<br>5ppb<br>2ppb | 10ppb<br>5ppb<br>2ppb | Set by CODEX Commission |
| Foreign matter<br>Inorganic matter | 0.5%<br>0.25% | 1%<br>0.5% | 0.5%<br>0.25% | 1%<br>0.5% | 1.5%<br>0.75% | 1.5%<br>0.5% |
| Broken grains | 2% | 4% | 2% | 4% | 6% | 6% |
| a. Insect damaged grains | 1% | 3% | 1% | 3% | 5% | 7% |
| b. Rotten, diseased grains | 2% | 4% | 2% | 4% | 5% | 7% |
| c. Discolored grains | 0.5% | 1% | 0.5% | 1% | 1.5% | 2% |
| d. Other colored grains | - | - | - | - | - | - |
| e. Live insect infestation | - | - | - | - | - | - |
| f. Immature/ shriveled grains | 1% | 2% | 1% | 2% | 3% | - |
| **Total defective grain (Sum a to f)** | **4%** | **5%** | **4%** | **5%** | **7%** | **-** |
| Filth | 0.1% | 0.1% | 0.1% | 0.1% | 0.1% | 0.1% |

**Source:** RATES, 2003; EAC, 2005; CODEX, 1995.

While the EAC's approach of establishing different grades for maize is consistent with private sector systems used for determining a commodity's value, the EAS (and FDEAS) still create several problems for regional trade. In the first place, the East Africa SQMT Act makes standards compliance mandatory and states that no product shall be allowed into the region that does not meet the minimum specifications. To the extent that problems with broken, discolored, and shriveled grains are common for smallholder farmers and often arise for reasons completely unrelated to mycotoxin, maize with a high share of these characteristics can be kept out of the region on spurious grounds.

Moreover, EAC-SQMT Act commits Member States to ensure that domestic standards are fully harmonized with the East Africa ones, technically meaning that any grain that does not fully comply with EAC minimum standards requirements cannot be traded in domestic markets either.

### Compatibility with other Standards Systems

Unlike East Africa where standards for food staples are mandatory, traders in Zambia and other Southern Africa countries say they use standards mainly as reference point so that buyers and sellers know what they are dealing in and how to assess the commodity's value. Quality attributes and SPS concerns that do not impact directly on human or animal and plant health are not regulated by law as in the EAC.

Currently far, for example, the Zambia National Bureau of Standards (ZABS), Zambia Food Reserve Agency (FRA), and Zambia Agricultural Commodity Exchange (ZAMACE) each have their own different definitions and grading systems for the quality attributes of maize.

None of these standards, including the ones set by ZABS, is mandatory. Contrary to the view that says lack of harmonization is a non-tariff barrier, grain traders in Lusaka and Johannesburg report that the current system works perfectly well whereby buyers specify the quality attributes they require and leave it to the seller to match those requirements.

Public health and other SPS concerns are still addressed through phytosanitary regulations, but other factors of commercial importance are left for buyers and sellers to decide. In practice, most transactions in Zambia are based on the ZAMACE grading system, which in turn is modeled on the SAFEX standards in South Africa. Table 5 provides a side-by-side comparison of the EAC Standards and ZAMACE standards.

Table 5: Comparison of Draft EAC Standards and ZAMACE Standards

| | FDEAS (now pending) | | | ZAMACE Standards | | |
|---|---|---|---|---|---|---|
| | Grade 1 | Grade 2 | Grade 3 | A Grade | B Grade | C Grade |
| Moisture content (maximum) | 13% | 13% | 13% | 12.5% | 12.5% | 12.5% |
| Aflatoxin (maximum)<br>Aflatoxin B1<br>Fumonisin | 10ppb<br>5ppb<br>2ppb | 10ppb<br>5ppb<br>2ppb | 10ppb<br>5ppb<br>2ppb | n/s<br>n/s<br>0.5% | n/s<br>n/s<br>0.5% | n/s<br>n/s<br>0.5% |
| Foreign matter<br>Inorganic matter | 0.5%<br>0.25% | 1%<br>0.5% | 1.5%<br>0.75% | 1% | 1.5% | 2% |
| Broken grains | 2% | 4% | 6% | 6% | 7% | 8% |
| a. Insect damaged grains | 1% | 3% | 5% | 3% | 6% | 9% |
| b. Rotten and diseased grains (EAC); Diseased grains (ZAMACE) | 2% | 4% | 5% | 2% | 2% | 2% |
| c. Discolored grains | 0.5% | 1% | 1.5% | 3% | 6% | 9% |
| d. Other colored grains | - | - | - | 3% | 4% | 5% |
| e. Fungal damaged grains | - | - | - | 0.5% | 1% | 1.5% |
| f. Immature/shriveled grains | 1% | 2% | 3% | 1% | 1.5% | 2% |
| **Total defective grains (Sum a to f)** | **4%** | **5%** | **7%** | **11%** | **18.5%** | **26%** |
| Germinated grains | n/s | n/s | n/s | Nil | Nil | Nil |
| Pass through 4.15mm sieve (max) | n/s | n/s | n/s | 1.5% | 2% | 2.5% |
| Diplodia (ear rot) | n/s | n/s | n/s | Nil | Nil | Nil |
| Filth | 0.1% | 0.1% | 0.1% | n/s | n/s | n/s |

**Notes:** Current 2005 EAS identical to FDEAS except do not include specifications for Grade 3 maize or testing requriement for Fumonsin. ZAMACE standard for foreign/inorganic matter defined as "extraneous matters". n/s = not specified.
**Source:** EAC, 2005; EAC 2011; ZAMACE, 2008.

In comparing the EAC and ZAMACE standards, several important differences stand out. First are the tight restrictions on the maximum share of discolored, immature, and shriveled grains in the EAC. In Zambia, the vast majority of marketed maize is now produced by smallholder farmers and is therefore a sundried product with uneven color. Sun bleached maize is perfectly safe to consume and merely yields flour that is less than snow white so is only important to appearance and a miller's financial return. Similarly, immature and shriveled grains are common in smallholder maize for reasons completely unrelated to mycotoxin. These grains result in lower milling outturn, but are otherwise very safe to consume.

As shown, there are also important differences in the EAC and ZAMACE standards for Aflatoxin. While Aflatoxin can indeed be a serious health risk and has even led to cases of acute poisoning, traders say this is extremely rare in Southern Africa because of there being only one rainy season unlike East Africa where there are two rainy seasons per year. Grain traders therefore complain that the EAC's mandatory testing requirement is not needed for maize from Southern Africa and say that any attempt to extend mandatory Aflatoxin testing to this region as part of a harmonized standards regime would add unnecessarily to cost.

These technical differences can have a major impact on trade. Zambia currently has the world's largest surplus of non-genetically modified white maize equal to a stock of over 1.5 million tons available for export. In practice, however, large traders including the World Food Programme, say the EAC requirements make it difficult and expensive to export this grain to Kenya where there is strong demand for commercial and humanitarian purposes. The very tight restrictions on total defective grains (4-7% in the EAC compared with 11-26% according to ZAMACE) was identified as a particular constraint to exporting smallholder maize. Moreover, because maize marketing system in Zambia is not well geared to inspect for quality on reception, exporters say they typically have to visit several depots at a reported cost USD 2.50 per ton per place inspected to find maize that meets the EAC's standards. After sourcing EAC compliant grain, pre-shipment certification and testing adds anywhere from USD 0.50 to more than USD 3.00 per ton to the cost of trade with similar or even higher inspection and testing costs arising on entry to the EAC.

### SADC Standards for Seed

A good example of an alternative approach to standards management is the case of SADC's draft regulatory system for seed. Although SADC has also gone for a harmonization approach by establishing regional standards, the system is not mandatory and does not specifically seek to increase access to external markets by adopting Western requirements. Other than setting out testing procedures for variety approval based on rules of the International Seed Testing Association (ISTA), the SADC standards are mainly homegrown.

The SADC system is also unique from the EAC's approach in that it includes principles of mutual recognition whereby any seed variety already approved in two SADC Members will be freely tradable throughout the entire SADC region. Seed related agreements and obligations that Member States have with international bodies such as the International Union for Protection of New Varieties of Plants (UPOV) are not affected by the regulatory system. In the EAC, there are not yet any harmonized standards for crop inputs other than maize seed and trading requirements are still determined largely at the national level.

Compared with the EAC standards for food staples, which were mostly drafted within less than a year, SADC's harmonized system for seed has been under development for many years with technical and administrative support provided by a specially created SADC Seed Security Network (SSSN). Moreover, as the system gears up for implementation, pilot projects funded by the Swiss Agency for Development and Cooperation are being implemented in Malawi, Swaziland, Zambia, and Zimbabwe by SSSN and the Food, Agriculture, and Natural Resources Policy Network (FARNPAN) of SADC. In addition to support for seed producing communities in each country, FARNPAN is conducting an audit of each country's seed certifying capabilities including their ability to implement measures of the plan related to varietal testing and release, seed certification, and SPS protection.

In brief, the SADC Seed Regulatory System is based around following three components:[3]

- SADC Variety Release System – this component is intended to provide for a shorter period of testing and release of new varieties. Instead of the current system of testing new varieties for two to four years in each Member State, any variety released in two Member States will be able to be marketed in the rest of the countries with similar agro-ecological conditions.

[3] See SADC, 2008 for a full description of the Regulatory System.

- SADC Seed Certification and Quality Assurance System – this component will introduce common terminologies, standards, procedures, seals, labels and a certification scheme.

- SADC Phytosanitary Measures for Seed System – this component will promote the safe movement of seed with respect to pests and diseases.

Under the first part of the system, SADC intends to create a Regional Seed Catalogue and Seed Variety Database. Any seed variety that has been registered in two SADC countries and has valid Distinct, Uniform, and Stable (DUS) and Value for Cultivation Use (VCU) test results may submitted to SSSN for inclusion in the SADC Seed Catalogue after which it will freely tradable between Member States. With respect to quality assurance, SADC is also creating a universal labeling system for different generations of seed based on field and laboratory standards for minimum isolation distance, maximum percent of off-types, minimum number of inspections, minimum germination percent, minimum pure-seed by weight, and maximum percent moisture. As of 2008, SADC had developed detailed specifications for 18 types of cash and food crop seed.

Seed traded under the SADC System will also need to comply with specified phytosanitary measures. Under this component, the SADC Seed System aims to create two universal lists of quarantine pests including one list of pests that require control when seed is traded between Member States and another list of pests for when seed is traded into SADC from outside the region. This approach means that testing and quarantine measures will only be required for pests and diseases that are not common in all Member States. Moreover, since participating SADC countries will be testing for the same things, retesting of seed consignments on arrival in the importing country can be reduced and (in principle) eliminated. In the case of seed imported from outside SADC, once the seed has gained entry to the region it can be traded to any other participating country without further SPS or other quality testing.

In February 2010, SADC Ministers of Agriculture signed a memorandum of understanding to begin implementing the SADC Harmonized Seed Regulatory System, and in 2011, the SADC Seed Unit at Chalimbana near Lusaka was appointed to be the implementing agency. Operational modalities are now being developed with the Zambia Seed Certification and Control Institute (SCCI) reporting that it expects the SADC System to be fully operational in late 2012 or early 2013.

## Comparison of the EAC and SADC Approaches

In terms of approach, the SADC strategy is an interesting example of how countries may choose to follow a harmonization strategy on a voluntary basis. Rather than make the standards mandatory as the EAC has done for food staples, the SADC seed strategy allows countries to maintain their own seed regulations and trade seed outside the harmonized system if they wish. This stands in sharp contrast with the overall approach to standards management in East Africa where the emphasis is on mandatory recognition of EAC standards and merging of regional standards with international best practice. Whether the SADC approach can be sustained on a voluntary basis, remains to be seen since Member States could potentially still use SPS or other quality concerns to close off borders to seed trade. However, while the EAC approach may be more explicit in its objective of keeping borders open, the EAC standards regime also carries its own risks in terms of adopting Codex and other advanced Western standards that regional producers and consumers may not really want or be able to meet.

A further important difference between the EAC and SADC approach to regional standards is that SADC countries have invested considerable time and resources in carrying out audits of national of seed production systems, national certifying capacities, and other matters that directly affect the ability of each country to implement the harmonized system. Although this means development of the system has been slow, attention to this kind of details is fundamental to long-term success.

## Conclusions

This note set out to consider how new standards designed to facilitate trade can sometimes have unforeseen negative consequences and even prevent smallholder farmers from participating in regional markets. The East Africa Community, for example, has set strict upper limits and testing requirements for maize and other food staples with respect to Aflatoxin and other quality variables. While traders do need quality benchmarks to know what they are buying and selling, traders report the East Africa Standards have made it difficult and expensive to source compliant maize in Zambia and other surplus countries to the point where it has sometimes been easier and cheaper to import grain from outside Africa. While discoloration and deformed shape can sometimes be indicators of mycotoxin, for example, the practical reality is that much of the so-called discolored maize barred from entering the EAC is merely sun bleached as a result of being dried on mats by smallholder farmers so is perfectly safe to consume. Problems with undersize pips are also common for smallholder farmers as a result of not using fertilizer or other inputs at the right time or in the right quantities. Rather than promote regional trade as intended, it therefore appears the harmonized standards are having the opposite effect by introducing new requirements that are ill suited to the African context. Mutual recognition and equivalence agreements are alternatives to harmonization in the WTO SPS Agreement and could go a long way to improving the regional trade environment.

A further observation to emerge from the discussion is that compared with the effort put into regulating regional trade and to enforcing trade standards at border posts, relatively little attention is given to the more mundane task of ensuring quality in domestic markets. It can even be argued that money spent on developing regional standards and mechanisms for controlling what comes into a country is wasted unless matched with effective systems for quality assurance after the cross-border movement. Controlling quality in domestic markets is a more difficult task than inspection at border posts, but is still a critical part of trade facilitation if only for higher level investments in standards diplomacy and regional trade agreements to have practical meaning for end users.

A final general lesson from the analysis is that countries all have different needs for standards and different capacities to meet them. Other than for critical matters related to human, animal, and plant health, a voluntary standards approach is therefore likely to be far more practical and meaningful for Africa than attempts to emulate Western norms. Contrary to the view that says the lack of harmonized standards is a major trade barrier, grain traders in Southern Africa report the current system works perfectly well and say that when standards are made mandatory, there is a risk of setting the bar too high or of raising costs to uncompetitive levels.

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