Market study reveals the need for appropriate food safety standards and incentive-based approaches for improved compliance in ECA countries

Omore, A., Kurwijila, L.R., Makokha, S. and Birunji, R.

Introduction

Concerns about food quality and safety are increasing in ECA countries where urbanisation, increasing incomes and changing life-styles are associated with greater dependence on marketed foods by an increasing number of people. Overcoming these concerns and associated market access barriers is central to exploiting market demand and livestock value chains development, to improve smallholder production and participation in markets and accumulation of material assets (e.g., see Rota and Sperandini, 2010). Small scale producers are often unable to increase production by adopting productivity enhancing technologies unless the value chains for their products are sufficiently developed and dynamic, and fulfil the role of providing the necessary ‘push’ and ‘pull’ for technology uptake, to justify the investment of the various actors along the value chain.
The policy challenges of defining “one standard” across informal and formal sectors

The main tool for managing food safety risks is through standards. Eastern and Central African countries and other developing regions have two main challenges in doing this: first, countries want to live with “one standard”, a major challenge especially for livestock products that are often traded in both formal and informal markets. The latter dominate because they serve the majority poor sellers and buyers, who value the traditional tastes and generally low prices. While not necessary illegal, informal markets often operate outside the norms of commercial, regulatory and taxation-related business conducts (Box 1). As documented by Omore and Waithaka (2011), conventional policy approaches and standards setting in ECA have sought to eliminate informal market channels, mainly due to concerns about food safety, with neither success nor development advantage, but a significant anti-poor bias. There is increasing recognition that informal channels need to be embraced by policy without jeopardising associated public health risks that often dictate standards setting. Second, responses for food-borne diseases are often compartmentalised: instead of analysing the tradeoffs between welfare of poor people and risks, the agriculture sector focuses on productivity, while the health sector focuses on managing disease.

<table>
<thead>
<tr>
<th>Level of formality</th>
<th>Tanzania</th>
<th>Kenya</th>
<th>Uganda</th>
<th>Rwanda</th>
<th>Ethiopia</th>
<th>S. Sudan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informal % (raw milk sales)</td>
<td>95</td>
<td>86</td>
<td>90</td>
<td>95</td>
<td>95</td>
<td>99</td>
</tr>
<tr>
<td>Formal % (processed milk sales)</td>
<td>5</td>
<td>14</td>
<td>10</td>
<td>5</td>
<td>5</td>
<td>1</td>
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Source: Reviews conducted under the ASARECA Project on Exploiting Market Opportunities for Value-added Meat and Dairy Products.

Box 1: Informal vs formal markets

The term ‘informal’ is often seen both as a pathway to development (and supported) or as a symptom of underdevelopment (to be discouraged). It was coined to refer to people operating outside the law including taxation; but now commonly refers to small-scale traders operating with licenses as well. So, many informal traders are not necessarily informal in terms of legal status. Most people enter the informal sector as a survival strategy, as it may offer the only immediate opportunity for income generation, particularly for those without access to land resources. In most instances, the majority of people in the informal sector would leave it if they found formal employment. Informality is often a result of low investment into business, be it education, awareness, information or lack of capital. The so-called ‘informality’ is also sometimes linked to traditional or indigenous products or practices, which are labelled informal because they are at variance with accepted international norms.

Informality, therefore, need not be viewed as a symptom of underdevelopment because the sector provides employment for a huge number of people. Informal businesses also have the distinct advantage of demonstrating more flexibility in responding quickly to new opportunities than does the formal sector. The issue is that, because businesses are informal, they may be risky because they are without regulatory support, recognition or are actively discouraged, and so are often vulnerable in terms of incomes, which frequently fluctuate. They are also vulnerable to exploitation because, they are unorganised, have little voice and lack understanding of business knowledge and technology. But they have the ability to grow and what is needed is to provide them with some of the protective benefits that ‘formality’ can offer, such as the training and certification schemes being piloted in various settings in East Africa.

This brief synthesises the above policy and institutional issues related to enhancing livestock related markets and identifies key problematic policy barriers and, against the background of evidence on consumers’ willingness to pay more than what they are currently paying, for
Key issues in the policy and regulatory environment

The current policy-related issues include:

Lack of locally-derived food safety standards: Due to lack of evidence and various challenges, available milk and meat quality and safety standards generally assume processes associated with the more organised and formal sector, ignoring the fact of dominance of the informal sector. Thus, there is a general tendency to only adopt international food quality and safety assurance standards that may not take into account the circumstances in the informal sector that dominates in ECA countries. Inherent opportunities embedded within these international guidelines for adaptation in local contexts are rarely applied. The training and certification scheme cited above that recognises the informal dairy sector and the need to gradually transform it, is one practical approach for addressing quality and safety challenges while allowing the involved actors to thrive.

Box 2: Data Sources and methods

Rapid market assessments (RMA) along dairy and beef value chains were conducted in six countries namely Tanzania, Kenya and Ethiopia (2006) and Rwanda, South Sudan and Uganda during 2009 – 2010 in the capital city and one smaller city. Additionally, randomly sampled consumers residing in the same sites in Tanzania and Kenya were asked questions about the quality and safety attributes identified through the RMA, their consumption patterns, and the factors that influence their purchasing decisions for dairy and meat products. Their willingness to pay (WTP) was derived based on choice experiments covering 12 profiles of quality and safety attributes for both dairy and meat products. This was complemented with specific risk assessments associated with common food safety hazards and current policy reviews to identify constraints and opportunities.

Box 3: Appropriate Level of Protection (ALOP) and Food Safety Objective (FSO)

Appropriate level of protection (ALOP) and food safety objectives (FSO) are the two concepts that are accepted internationally under World Trade Organisation (WTO) Sanitary and Phytosanitary (SPS) agreement to guide the development of objective and science-based recommendations that maintain the balance between the public demand for safe food and the producers’ desire for reasonable profit margin. The WTO encourages nations to develop their own standards within the guidelines published by international agencies such as the Codex Alimentarius Commission of the FAO/WHO for food safety. The ALOP as stated in the WTO/SPS agreement is defined as “the level of protection deemed appropriate by the member country establishing a sanitary or phytosanitary measure to protect human, animal or plant health within a territory”.

Sub-optimal policy environment: For milk, it is positively noted that there are ongoing pro-active engagements in several countries (Kenya, Uganda and Tanzania) to transform the informal market chain actors into the formal value chain through training and certification pilot schemes to bridge the regulatory gap and work towards the required levels of compliance. However, the policy environments across all countries still need improvement in the following key areas: the Dairy Bill in Kenya that is supposed to entrench a new policy environment has not yet been passed.
even though a draft has been ready for many years now; the Tanzania Dairy Board (TDB) which is the main actor in implementing dairy policies and regulations is not fully functional; the newly created Rwanda National Dairy Board (RNDB) is in its infancy and dairy development policy mainly emphasises cold chains; and dairy development institutions in South Sudan are still non-existent. The Dairy Development Authority (DDA) efforts to support raw milk sales in quality and safety regulated settings need strengthening; and Ethiopia still does not have a dedicated dairy regulatory and/or development board.

Specific policy instruments for meat industry regulation are generally non-existent or are weak except in Tanzania where there is already a Meat Industry Act in place and a nascent regulatory board that was formed in 2011. Similar initiatives in Kenya have not yet culminated in a draft Meat Industry Policy.

Overlapping institutional roles in enforcement: Overlapping institutional roles and “over-regulation” is common across the ECA countries, mainly with conflicts and unclear synergies. For example, in Tanzania, Kifaro (2010) found that six government institutions (Ministry of Livestock Development and Fisheries (MLDF), Ministry of Health and Social Welfare, Tanzania Food and Drug Authority (TFDA), Tanzania Dairy Board (TDB), Local Government Authorities (LGAs) and Tanzania Bureau of Standards (TBS)) are involved in milk regulations related to milk production; five institutions (Ministry of Home Affairs, TFDA, TDB, MLDF and TBS) are involved in milk transportation; four (TDB, LGAs, TBS and TFDA) are involved with operations of milk sellers/vendors while five (TBS, TFDA, MLDF, LGAs and TDB) regulate importation and exportation of milk. Processors complain that up to five institutions have overlapping roles enforcing compliance to laws and regulations controlling milk processing. These institutions aim to improve milk quality through regulation. However, evidence from Kenya indicates that regulation per-se of milk traders does not ensure better milk quality (Figure 1) while incentives such as training does (Figure 2).

Figure 1. Comparison of quality of milk samples between licensed and unlicensed traders based on KEBS hygiene standards for coliform counts (50,000 cfu/ml) indicating no significant difference at 5%. Source: www.smallholderdairy.org

Figure 2. Comparison of quality of milk samples from untrained and trained traders according to KEBS hygiene standards for coliform counts (50,000 cfu/ml) indicating significant difference. Source: www.smallholderdairy.org
Underlying findings from the market demand and food safety studies with policy implications

i. Food safety hazards from various bacterial (e.g., S. aureus, E. coli O157:H7, thermophilic Campylobacter) and chemical (e.g., antimicrobial residues) with implications for adverse human health risks are common in dairy and meat markets in ECA;

ii. Concerns by consumers and policy makers about food safety are increasing with urbanization, increasing incomes and changing life-styles associated with greater dependence on marketed foods;

iii. Up to 67% of consumers are willing to pay more than what they are currently paying, for improved safety and quality (highest willingness to pay more was found in Dar Es Salaam);

iv. A key policy implication for these findings is that there are incentives for gradually improving the quality and safety of marketed dairy and beef products in ECA, without relying wholly on traditional approaches that are not easy to enforce.

Applying the policy change cycle framework for appropriate standards setting

The policy change cycle adopted by ASARECA from Mukhebi et al. (2001) as adapted below is recommended for addressing challenges on setting of appropriate standards.

Figure 3: Policy change cycle Framework (adopted by PAAP from Mukhebi et al., 2001)
Agenda setting: Review current standards to document those that are inappropriate given the local contexts, the appropriate level of protection (ALOP) and food safety objective (FO). Based on the documentation, one can apply the Outcome Mapping (OM) approach (www.idrc.ca/evaluation) for this joint visioning and planning process, including M&E, as it provides a structured mechanism for participatory planning, agreeing outcomes, the strategies required to achieve them, and the indicators used during the course of the project to monitor progress and impact.

Data collection and analysis: Collect and analyse policy oriented data using the Codex risk analysis framework (see http://www.codexalimentarius.org/scientific-basis-for-codex/en/ and related links). Apply this framework to identify options for rationalisation and harmonisation to be taken into the dialogue step within the policy change cycle framework. Ex-ante quantification of the impacts of those options may also be undertaken at this stage.

Dialogue: To effectively engage in dialogue and advocacy, it is important to first identify key drivers, usually mandated organisations and related institutions. Key drivers among these are bureaus of standards and regulatory boards. Effective advocacy requires that the champion identifies those for and against a desirable policy shift, and laying a strategy for winning over those against. Policy-oriented data from the previous stage is a critical input into this step.

Implementation: While it is not the role of researchers to implement development projects, support to pilots is a desirable engagement in ensuring desired outcomes. Because “seeing is believing”, practical demonstration of policy implementation instruments, and its monitoring, offers the opportunity to ensure the desired outcomes.

Monitoring and evaluation (M&E): monitoring and evaluation is required to generate scalable recommendations. The M&E can partly be based on the OM indicators developed during agenda setting.

Box 1: Opportunities for pursing appropriate standards in the dairy industry

i. The East Africa Agriculture Productivity Project (EAAPP) Dairy Centre of Excellence (DCoE)
EAAPP DCoE presents an opportunity to address dairy standards that are considered inappropriate in the short to medium term. EAAPP is a five-year USD 120 million programme initiated in 2009 to support strengthening and scaling up of Centres of Excellence (CoE) in agricultural research in Ethiopia, Kenya, Tanzania and Uganda with financial support from World Bank’s International Development assistance (IDA) concessional loans facility, to enhance agriculture-dependent livelihoods within the Eastern Africa region. The loan aims to finance investments and activities of regional importance to improve productivity of four commodities that includes dairy, with ASARECA coordinating its regional activities. One of the key tenets of success will be the availability of an efficient policy environment to enable innovation and translation of such innovation into economic goods and services to fuel growth and development in EA region. The Purpose of the DCoE is to develop, test and disseminate technologies, knowledge and information (including policies) that will assist in building a globally competitive dairy industry in the region.

ii. EADRAC and Bureaus of Standards
Rationalisation and harmonisation of policies and regulations require active participation of key stakeholders. Since 2006, leaders of statutory dairy regulatory authorities in EA meet regularly to share lessons on ways to rationalise and harmonise dairy policies and
Conclusions and recommendations
The market studies and policy reviews highlight certain priorities:

i. The need for greater emphasis on incentives for positive behavioural change that is more likely to result in compliance than are traditional approaches that are not easy to enforce, especially in a developing countries like those in ECA. The training and certification scheme is a good example that needs to be extended to define appropriate standards and pathways to achieving them;

ii. A comprehensive documentation and characterisation of the hazards and risks associated with adverse health effects to inform decisions on the most effective risk management strategy, especially with regard to appropriate standards setting. Such a strategy should not unnecessarily jeopardise market access and the livelihoods of producers and market agents; Harmonisation of the different acts and regulations that affect the dairy sector, and the enactment of optimal regulations for regulation in the meat sector;

iii. Researchers should engage more in the standards debate to ensure they are more appropriate. This applies both to the inputs side (e.g., feed quality) as well as the output side (e.g., milk quality and handling standards).
References


