



# FANRPAN

Food, Agriculture & Natural Resources Policy Analysis Network



POLICY BRIEF 3/2018

## REGULATORY FRAMEWORKS FOR FOOD STANDARDS AND NORMS RELATED TO POST-HARVEST MANAGEMENT OF STAPLE GRAINS IN MOZAMBIQUE

### Introduction

In Sub-Saharan Africa, grains and legumes are considered important crops by farmers and rural households for personal and commercial use (Oluoch-Kosura, 2013). However, unacceptable levels of food loss continue to occur throughout the continent. Although these losses are recorded at all stages of the food chain, from production to marketing and consumption, the greatest concern lies with inadequate harvesting and drying processes prior to the food product leaving the farm. In 2011, the annual loss of food in Sub-Saharan Africa exceeded 30% of the total crop produced (World Bank, 2011).

The status quo in Mozambique is similar, where **post-harvest losses amount to 30% on average**, and where final product quality is low due to limited management and inadequate storage practices. Post-harvest losses have adversely affected the quantity of food products available to the market and consequently the monetary income of the producers.

**Post-harvest losses of grain result from dispersion caused by poor handling practices during harvesting, threshing, and transporting.** Furthermore, bio-degradation caused by pests including insects, moulds and fungi, rodents and sometimes birds also result in post-harvest losses.

**Improving the post-harvest management skills of poor farmers** will not only lead to increased volumes of stored products for consumption and trade, but also has the potential to directly influence the health and well-being of all people living in the region.

**Several efforts have been made to improve the postharvest quality of food products, but there remains a need to develop and disseminate information on the matter.** This has become especially pertinent in the context of the country continuously adopting international agreements on trade.

### KEY RECOMMENDATIONS

- ONE:** Involve all stakeholders (regulatory, service providers and beneficiaries) in the development of standards for postharvest management of food products
- TWO:** Produce food standards taking into account the needs and priorities of stakeholders involved in the production and use of these food standards and regulations (regulatory, service providers and beneficiaries).
- THREE:** Promote public awareness of the importance of food quality.
- FOUR:** Harmonize different food standards and norms used by various intervening parties in the value chain in Mozambique.
- FIVE:** Increase the dissemination of norms and standards of basic food products to different levels of users.

## Gathering Evidence

To obtain evidence for informing policy development and aid in decision making, an assessment of major policy documents, strategies and quality regulations, as well as food norms/standards was carried out. To complement the literature review, the different actors involved in the development process of regulatory instruments and food norms/standards were consulted. The results of the study were validated in a workshop where additional contributions were incorporated. These two stages were followed by a sensitization seminar and a national policy dialogue where various stakeholders involved in post-harvest management participated. These included public and private sector actors, development agencies, NGOs, and farmers' associations.

**In the country's regulatory framework, aspects of food quality and norms/standards related to post-harvest management are specifically addressed** in the decree on Standard and Conformity Evaluation Regulation (Decree No. 59/2009 of October 8th) and the Quality Policy and Strategy for its Implementation resolution (Resolution nr. 51/2003 of December 31st). It is also generally covered in the Strategic Plan for the Development of the Agricultural Sector, 2011-2020 (PEDSA) (Ministry of agriculture, 2010) and the National Investment Plan for the Agricultural Sector (PNISA 2013-201) (Ministry of agriculture, 2011). These instruments have been guiding the National Institute for Standardization of Quality (INNOQ) in the production of norms/ standards for various products, including food.

**The policy and regulations related to norms and standards for food products are not well known nor implemented on a practical level.** This is as a result of various factors, such as deficient clarity on the responsibilities of those institutions involved in the production and implementation of the standards, weak involvement of all stakeholders in the development of food standards/norms, lack of coordination between these actors in its implementation and dissemination, unclear mechanisms of acquisition and access to food

product standards/norms and insufficient information about the produced rules/standards.

**In Mozambique there are various initiatives involved in the development of food norms/standards, but they are working in isolation.** For example, some institutions and farmers' associations develop their own norms/standards that are not in accordance with international instruments such as the CODEX Alimentarius and the International Organization for Standardization (ISO).

**The current state in Mozambique therefore requires that actors at different levels (producers, consumers, government, academic, and civil society) focus their attention on the development, implementation, and increased dissemination of food policies and standards, as well as on increasing public awareness.** This document presents the existing policy frameworks and regulations for standards/norms of food products that relate to post-harvest management (focusing on basic food grains), highlighting the main shortcomings of the current regulatory framework, and identifying key stakeholders and their role in the development of food policies and standards.

## Lessons Learned

### Regulations

In Mozambique, the regulatory framework for food norms/standards is composed of two main documents, namely the Standards Regulations and Conformity Assessment (Council of Ministers,

2009) and the Quality Policy and Strategy for its Implementation (Council of Ministers, 2003).

While the Regulation defines the uniform and basic legal framework of food standardization

activities and conformity assessment, including technical regulations, the policy also addresses the following: protection, health protection and consumer safety, sustainable environmental conservation and protection, contribution to an environment conducive to national economic development, contribution to the increase in production and exports, creation of a culture and national consciousness of quality, and development of human potential.

The objectives and concerns of these two regulations guides the INNOQ which is responsible for coordinating the process that ensures food quality. The INNOQ also coordinates the entire process of standard development and technological processes of different products, including that of food.

The process of developing norms and standards is based on international norms and standards, except where such international standards or the main elements thereof are insufficient or ineffective in the achievement of the objectives set by the country. The Mozambican technical standards are drawn up by the Technical Committee for standardization and by working groups defined on a case-by-case basis. Where there is no standard or norm for a specific product, the interested party should request the INNOQ to develop it. The INNOQ, in turn, invites all actors who can contribute to the preparation process, such as ministries, public institutions, private companies, universities, laboratories, and trade associations to be part of the technical standardization committees and working groups.



*Rice milling, Morogoro, Tanzania*  
Source: FANRPAN



## Existing Norms and Standards

According to the INNOQ, Mozambique has 19 standards for basic food products. From these standards, nine are for cereals (wheat, corn, and

rice), eight for legumes (peanuts, beans, soybeans, and cowpeas) and two for cassava. The table below shows the nine standards for the grains.

### EXISTING STANDARDS FOR GRAINS IN MOZAMBIQUE

Standard/Norm	Year of Production	Definition
NM 4	2000	<b>Cereals:</b> Specifications for corn, including the methods of sampling and analysis.
NM 5	2000	<b>Cereals:</b> Specifications for semolina corn and flour, including sampling and analysis methods.
NM 6	2000	<b>Cereals:</b> Specifications for wheat and durum wheat, including sampling and analysis methods.
NM 7	2000	<b>Cereals:</b> Specifications for wheat, including sampling and analysis methods
NM 52	2007	<b>Rice:</b> Specifications
NM 73	2008	<b>Millet:</b> Specifications
NM 376	2012	<b>Cereals and legumes:</b> Sampling procedures
NM 377	2012	<b>Cereals and their products:</b> Moisture determination
NM 378	2012	<b>Storage of Grain:</b> Classification of insects and mites



*Wheat Harvesting*  
Source: University of Pretoria

The table indicates that there are standards for cereals and legumes in Mozambique but their scope and use are still insignificant in ensuring the quality of food placed in the national markets. The main challenge the INNOQ has is to continue to produce standards that include all aspects of post-harvest management and to ensure that the standards are disseminated and used despite of their use not being mandatory. There are,

however, mechanisms that can lead to the compulsory use of standards, which essentially boils down to the development of regulations that force the producer of a particular product to use the standard. In the case of cereals and leguminous plants, there are two standards that can be regulated for mandatory use: (i) standard NM5 that defines the specifications for flour and semolina corn and (ii) standard NM7 that defines the conditions for wheat flour.

## On-Going Actions



**This study shows that research initiatives on postharvest management norms/standards for food are still few in Mozambique.** Agricultural research institutions do not consider quality control as a priority. Despite the investments being made in post-harvest management and specifically in food processing and infrastructure development, research institutions have not assessed the effectiveness and efficiency of the methods being adopted in post-harvest management activities in the quality of foods.

With regards to initiatives on the development of food norms/standards, farmers' organizations have set their own standards that are designed to

respond to market needs. On the other hand, there are farmers who produce on contract demand and are using the standards defined by the contracting company, such as the Society of Vanduzi. The national dialogue on the regulatory framework of norms/standards of basic food products revealed that some organizations and institutions have used, and in some cases, are working on developing food norms and standards. For example, the World Food Programme and the Cereals Institute of Mozambique have used norms/standards in the purchase of corn and currently Mozambique Mercantile Exchange is also in the process of developing norms/standards for cereals (corn).



## Achieving Better Quality Products

The national policy dialogue on the regulatory framework on basic food norms/standards proposed key recommendations for achieving better quality of agricultural products:

1. Reduce costs of acquiring the standards produced by the INNOQ to enable access to different users;
2. Promote the consumption of quality products at fair prices;
3. Publicize market advantages that result from the production of quality products to the producers, referencing some companies that are demanding quality products;
4. Harmonize the norms/standards produced by the different actors through promoting cooperation between the institutions involved;
5. Use the academic environment for the dissemination of information on the quality of food. To this end, there is a need to include subjects relating to quality standards of food products in courses offered in the various educational institutions.
6. Promote discussions on food- and quality standards in small actor groups of the agrarian sector.
7. Establish an electronic platform where experience on food quality matters can be shared.



*Micotoxin contaminated groundnuts, Malawi*  
Source: FANRPAN

## Actors in The Development of Food Standards and Rules

The study on the regulatory framework on norms/standards of post-harvest management found **that there is a need to involve various actors who assume different roles in the process of developing food standards:**

- ❑ **PRODUCERS:** the definition of norms and standards on the basis of potential customers;
- ❑ **ACADEMIC ENVIRONMENT:** research, education and extension;
- ❑ **MINISTRY OF AGRICULTURE AND FOOD SECURITY** through the Rural Extension National Directorate, the Agricultural Research Institute of Mozambique and the Technical Secretariat for Food Security and Nutrition: research, investigation, awareness and dissemination;
- ❑ **MINISTRY OF INDUSTRY AND TRADE,** through the INNOQ and the National Institute of Economic activities: production of standards, dissemination and inspection;
- ❑ **MINISTRY OF LAND, ENVIRONMENT AND RURAL DEVELOPMENT:** dissemination;
- ❑ **MINISTRY OF SCIENCE AND TECHNOLOGY, HIGHER EDUCATION AND TECHNICAL PROFESSIONAL EDUCATION:** research and dissemination;
- ❑ **NON-GOVERNMENTAL ORGANIZATIONS:** dissemination and public awareness;
- ❑ **PRIVATE SECTOR:** production and dissemination; and
- ❑ **CIVIL SOCIETY:** publicize preferences and consumer safety.

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## References

- Council of Ministers of the Republic of Mozambique, Bulletin of the Republic of Mozambique, Series I, No. 40, Decree number 59/2009 of 8 October.
- Council of Ministers, Mozambique, Resolution No. 51/2003 of 31 December.
- Oluoch-Kosura, W. (2013). Chapter 1: Introduction in AGRA. Africa agriculture, status report: focus on staple food.
- Ministry of agriculture (2010). Strategic plan for the development of the Agricultural Sector (PEDSA) 2010-2019.
- Ministry of agriculture (2011). National Plan of investment in the Agriculture; Sector (PNISA) 2013-2017.
- World Bank (2011). Missing Food: The Case of Postharvest Grain Losses in Sub-Saharan Africa, Report no. 60371-AFR.

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### **About FANRPAN**

The Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN) is an autonomous regional stakeholder driven policy research, analysis and implementation network that was formally established by Ministers of Agriculture from Eastern and Southern Africa in 1997. FANRPAN was borne out of the need for comprehensive policies and strategies required to resuscitate agriculture. FANRPAN is mandated to work in all African countries and currently has activities in 17 countries namely Angola, Benin, Botswana, Democratic Republic of Congo, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.

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