Food Security and Nutrition Challenges in Mozambique

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Food Security and Nutrition Challenges in Mozambique
Mozambique’s challenges in terms of food security and nutrition are multifaceted and, if not properly and quickly resolved, will place the country’s development at risk. The reduction of chronic malnutrition is a key goal of the Government of Mozambique, requiring long-term investments and a multi-sector approach to reverse its unacceptably high levels, which impact negatively on the development of human capital in the country. The main causes of malnutrition are low income and food insecurity, as evidenced by the large number of households with malnourished children in the lower-income-quantiles, as well as households suffering from food insecurity. It is estimated that over half of Mozambique’s households are affected by food insecurity and approximately one-third by chronic food insecurity.

Approximately 30% of households are considered poor or borderline in terms of the diversity of their diet and frequency of meals, a critical measure of nutritional security. As mentioned in the document, 80% of households are unable to obtain an adequate diet. Although the prevalence of food insecurity and chronic malnutrition in the country’s provinces is similar, it is more accentuated in the provinces of Cabo Delgado, Nampula and Sofala.

Considering that the prevalence of severe chronic malnutrition represents a significant risk to the development of Mozambique, discussions on food security and nutrition are becoming increasingly more important, both for the government and for civil society.

The current food security and nutrition situation may be summarised as follows:

Chronic malnutrition rates are high, particularly among children, and are higher in rural areas than in urban areas, increasing from the South to the North (reaching 50%), i.e., from the areas of greater consumption to those of greater production; from the more vulnerable areas to those most favourable for production; from the poorest to the richest areas in terms of natural resources. This pattern is consistent with other indicators of regional imbalances in terms of poverty and consumption levels, and economic and social infrastructures. While poverty is not the only cause of malnutrition, it is generally accepted as one of the key factors.

Although three-quarters of Mozambique’s population has currently managed to break free from the hunger trap, the future of nearly half of Mozambican children is compromised: there is, in fact, an emergency situation that needs urgent attention.

Mozambique needs to make a huge effort in order to meet the Sustainable Development Goals (SDG2) of the 2030 Sustainable Development Agenda, approved by all countries in 2015, particularly in that which concerns the second goal, which aims to “end hunger, achieve food security and improve nutrition, and promote sustainable agriculture”.

This document presents a strategic review of the food security and nutrition situation in Mozambique, and recommends a set of strategic proposals that are considered key in overcoming the main challenges in the fight against chronic malnutrition. These are of a policy and institutional nature and include medium- and long-term processes, as well as implementation mechanisms that are as important as the goals to be achieved.

The study was guided by a multi-disciplinary Advisory Group that included selected experts with sound knowledge of Mozambique and experience in areas addressing food security and nutrition. Its contents were discussed with various stakeholders, through panels and groups of interest that included

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government officials, representatives of civil society, private sector, the academia and UN organisations. The entire process was facilitated and financed by the WFP.

Considering the multi-dimensional aspects of food security and nutrition, the proposals presented in this document require timely and efficient coordination within and among the relevant sectors and institutions, and civil society organisations. In several cases, the results of the implementation programmes may be immediately felt at household and community level. Nevertheless, the wider impact on Mozambique’s food security and nutrition will only be perceived in the medium- and long-term. These proposals can be summarised as follows:

In general, the proposals were analysed taking into account the following elements:

1) Prioritization and governance: the situation is developing slowly, not because of the quality of the policies and strategies, but due to lack of implementation, largely owing to the fact they are not considered a real priority. For example, failure to comply with the Maputo Declaration to award 10% of the budget to agriculture. Food security is not only a task and priority of the government, but of society as a whole. If it is not made a priority, the quality of life of the population will be at risk, with serious repercussions on the future of the Country.

2) Generalisation of proposals: the policies and strategies fail to take into consideration the specificities of the regions, or even of the communities, making them hard to work with. For example, the message of the need to increase the frequency of protein-rich foods, such as beans, does not make much sense for Niassa, where it is a common crop, but animal protein is lacking; however, the message may make sense for other regions. The prioritisation of mitigation measures should consider local peculiarities to improve the rationalisation of resources and to improve the acceptance and scope of the messages.
The proposals presented in the document may be summarised as follows:

1. Strengthen the extension services system, focusing on the production and supply of quality seeds and on the dissemination of messages to drastically reduce post-harvest losses in agriculture and fisheries;

2. Promote livestock and aquaculture interventions, including the control of Newcastle disease in poultry and systematically fight against uncontrolled forest fires and theft, which affect the development of livestock and game;

3. Support the development of local agro-industry, with the introduction of incentives for its establishment. This will contribute to add value to agricultural products, increase the availability of fortified foods and promote market linkages;

4. Promote sustainable management of natural resources (land, water, vegetation coverage);

5. Formulate and implement an extensive infrastructure plan, prioritising those with direct impact on production in the short-term, with particular focus on rural roads and small irrigation systems, water tanks or reservoirs, to involve the local population and to generate job opportunities, even if only seasonal;

6. Strengthen the linkage between schools and health facilities and the community, particularly for pregnant and breastfeeding mothers, through programmes introducing behaviour change and improved dietary habits;

7. Support civil society organisations to strengthen their linkage with the communities, supporting the government’s efforts in promoting activities directly linked to food security and nutrition;

8. Revisit the legal and institutional framework and the capacity to enforce rules and procedures specifically targeting the food system.

Given the seriousness of the current situation, and although it is clear that sustainable treatment of chronic malnutrition will result from a medium- to long-term process and not from events, it may be advantageous to launch a Campaign Against Food Insecurity and Chronic Malnutrition. In this context, the proposal is to implement multidisciplinary groups or committees comprising teachers, general nurses or preventive medicine technicians, midwives, nutritionists, rural extension officers, community health technicians and journalists, as well religious and other civil society representatives, including traditional healers.
In 2015, Mozambique celebrated its 40th anniversary of the proclamation of independence. Many positive changes occurred in various areas, despite the relatively long period of a 16-year civil war, from the late 70s to early 90s. One of the achievements of the post-war period was the reduction of food insecurity from 56% in 2003 to 24% in 2015, i.e., a reduction of 32 percentage points in 17 years. Malnutrition also fell from 48% in 2008 to 43% in 2015, i.e., 6 percentage points in 7 years. Food insecurity decreased at almost double the rate of chronic malnutrition.

However, at these rates, the question is whether Mozambique can fully achieve the second Sustainable Development Goal of the 2030 Sustainable Development Agenda, approved by all countries in 2015, which aims to “end hunger, achieve food security and improved nutrition, and promote sustainable agriculture”

Over the years history has shown, and in some cases in African countries, that it is possible to achieve those targets. Success will depend on critical and courageous prioritisation, based on a commitment of not risking the viability of the country for future generations. It will also depend on detailed planning that takes into account the conditions of the vehicles and instruments used for local implementation, as well as the existing financial, natural, human, material and institutional resources.

The first section presents the conceptual approach and methodology. The second section provides the more relevant aspects of the current situation. The third section discusses the policies and programmes adopted by the government and partners, their progress and gaps, as well as their potential contribution to the above-mentioned objectives. It also explores possible proposals for solutions to improve the food security scenario, identifying some of actions considered indispensable. The fourth section presents the main mechanisms for the implementation of the suggested proposals.
This approach was reflected in a matrix that was used to compile information and to analyse the policies, interventions, gaps, obstacles and proposals.
1. Conceptual Approach and Methodology

1.1. Conceptual Framework

A strategic review of food security and nutrition can be approached in several manners. The choice of a conceptual framework is generally associated with the objective pursued. The approach chosen for this review combines several analytical frameworks. It focuses on the part of the Food System (Ericksen, 2007; Figure 1), that refers to the five forms of capital associated with the concept of livelihoods, on which the four “classic” pillars of food security are based (Figure 2).

Figure 1. Food systems, determinants and results

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1 The conceptual frameworks of (sustainable) food value chains and value chains for nutrition, which are more limited on the supply side, can be integrated in a more specific context of addressing the typical activities and processes of value chains

2 According to Moser and Norton (2001), economic-financial capital, physical capital or assets, human capital or assets, social assets, which includes rules, standards, obligations, relationships of reciprocity, solidarity and trust, and natural capital or assets, which encompasses the resources offered by the natural environment, including the earth, with its soil, forests and water, as well as mineral resources and the atmosphere.
At its root, food security depends on the conditions related to availability, access, use and stability of food, as well as on interventions that combine the five types of resources, assets or capital: economic-financial, physical or infrastructural, human, social and institutional, and natural. This is the basis for the linkage between actors – from individuals to States – and the activities of the system. All these activities and outcomes are influenced at every level by demographic, natural, social, economic and institutional conditions.

In Mozambique, most of the conditions and activities linked to the food system have a large impact on the food and nutrition security situation. Identifying which of them have the greatest impact is one of the objectives of this study. Therefore, it was considered necessary to establish the context of the analysis based on the classic approach of the food security pillars - availability, access, utilisation and stability – since analyses focusing exclusively on these pillars tend to undervalue and dilute the contextual conditions.

An essential element of the policy analyses was the evaluation of their potential or real impact on reducing or increasing inequalities and production capacity, which also involves access to other resources such as land, water, labour, soil, genetic material, etc. Thus, this highlights the need to guarantee a healthy society in the long-term.

The proposals presented in this document were formulated taking into account the Global Strategic Framework for Food Security and Nutrition recommended by the Committee on World Food Security – CFS (CFS, 2014). Specifically, the twin-track approach recommended by the CSF was adopted. This approach consists in the definition of two sets of interventions to be initiated simultaneously, with the first one aimed at ending hunger in the short-term, and the second focusing on long-term interventions aimed at gradually securing the right to adequate food.
1.2. **Methodology**

The methodology included:

1) bibliographic review to establish the basis and issues to be addressed;

2) analysis of the policies linked to food security and subsequent systematisation of information;

3) consultations with the Advisory Group – a multidisciplinary group of selected experts with sound knowledge of Mozambique and experience in areas related to food security and nutrition; and

4) consultation with several key stakeholders through panels and groups of interest. These included government officials, representatives of civil society, private sector and the academia and UN organisations.

This approach was reflected in a matrix that was used to compile information and to analyse the policies, interventions, gaps, obstacles and proposals.

Three areas of knowledge were selected, namely: (a) food security; (b) nutrition; and (c) common areas.

The common areas were grouped into two packages: the first reflecting the contextual aspects such as geography (including general infrastructures with an impact on food security and nutrition), and demography, which included the five types of capital. The second package included the four classic pillars of food security and nutrition.
The definition used in this analysis is that of the United Nations Food and Agriculture Organisation (FAO), which states: “food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life”.

The food security situation in Mozambique was assessed taking into account its multiple dimensions. Two sets of lenses were used to examine and understand these dimensions: one based on DFID’s livelihoods framework (five types of capital: economic-financial, physical or infrastructural, human, social and institutional, and natural) and the other based on UN’s four pillars of food security and nutrition (availability, access, utilisation and stability). Both classifications are interlinked and each provides a different way to examine and understand the context of food security and nutrition.
2.1. The Context: The Five Types of Capital

2.1.1. Economic and financial capital; some macroeconomic indicators

The economic environment affects production, consumption and utilisation of food and, consequently, food security and nutrition. The employment situation is a fundamental aspect, since households with fixed and reliable income are less prone to food insecurity. A favourable macroeconomic climate and access to financial resources are incentives for agricultural production and consumption of nutritious food.

Approximately 25% of Mozambique’s GDP comes from agriculture (crops, forestry, livestock farming and fisheries), which represents the main source of income for approximately 80% of the population (World Bank, 2011). The country has one of the lowest Human Development Indexes (HDI) in the world, ranking 178 from among the 186 countries analysed in 2014, placing it among the countries with the highest poverty intensity, with deprivation in approximately 65% of the indicators considered in the HDI calculation.

Graph 1. Evolution of the Human Development Index

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<tbody>
<tr>
<td>Life Expectancy</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
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<td>3</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>3</td>
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</tr>
<tr>
<td>GNI Per Capita</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<td>HDI</td>
<td>1</td>
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</tbody>
</table>

Source: FinMarkTrust, 2015.

There is little integration of the rural economy in the market, since the financial system is based mainly in the cities (Uaiene, 2012; Graph 2). In 2013, an additional 41 financial institutions began operating in the country, however, the rural areas continued to be underserved, both in terms of infrastructures and of the quality of the products targeting rural economic activities.

Graph 2. Access to Financial Services

<table>
<thead>
<tr>
<th>2014</th>
<th>Urban</th>
<th>40</th>
<th>4</th>
<th>13</th>
<th>43</th>
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<tbody>
<tr>
<td>Rural</td>
<td>10</td>
<td>3</td>
<td>18</td>
<td>69</td>
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Source: FinMarkTrust, 2015.

Under these conditions, production and availability as well as access to food by the population, is compromised.
**Physical Capital: Social and Economic Infrastructures**

Social infrastructures, such as schools and health centres, along with roads, communications and other economic networks, have an impact across all pillars of food security.

As centres of learning, schools provide access to and influence over millions of people, particularly students and their families. Furthermore, it is through these that the State makes its presence felt in the majority of communities, fulfilling citizens’ rights and implementing programmes and transmitting messages.

Health facilities provide basic health care, in addition to disseminating important messages on hygiene and the correct use of food, particularly to pregnant women and young mothers.

There has been an increase in health and education infrastructures over the years, however, there are signs that the quality of the services, in both sectors, is lagging behind the quantitative development. The concentration of these infrastructures is greater in urban areas than in rural areas (Mosca, Abbas and Bruna, in print).

Economic infrastructures also play a key role in food security, particularly those related to irrigation systems, transport and electricity.

Coverage of irrigation infrastructures is limited and is concentrated in the Provinces of Gaza, Zambézia, Tete and Manica. However, the installed capacity is under-used. It is estimated that only 50% of the 120,000 hectares of irrigated land was used in 2010. Although programmes are underway to recover the unused areas, it is nevertheless estimated that around 12.5% cannot be recovered. As a result, agriculture and food availability are dependent mainly on weather conditions (ORAM, 2010).

Road and rail infrastructures have undergone significant development in recent decades. Despite the generally poor conditions of roads, most cargo is transported over them.

A positive trend was seen between 1997 and 2011 in terms of electricity grid coverage. However, despite the electricity grid reaching all districts, few households are connected to it. Most households with access to electricity are found in the urban areas.

Just over half of the households (51%) have access to improved water sources. However, the disparity between urban and rural areas is high, at 84% and 37%, respectively. The main water sources in rural areas are unprotected wells (42%) and surface water (MISAU, INE and ICFI, 2013).

**Natural Capital: Natural Resources and Vulnerability**

Production and availability of food also depends on access to natural resources and the capacity to withstand climatic and economic shocks.

The country has 36 million hectares of arable land, of which only approximately 15% is in use. It also has 46.8 million hectares of forests, 8.8 million of which in parks and reserves. More than 99% of the agricultural land is made up of holdings of less than 10 hectares, and the majority of the land is administered according to customary rules. There have been land conflicts between small rural landowners and large investors, as well as between large investors and communities as a result of land tenure disputes and irregular implementation of resettlements.

The country has 104 major river basins. The total annual average surface runoff is estimated at 216 km3/year. The total inflow of water into the country is approximately 116 km3/year, while surface runoff generated in-country is, on average, 100 km3/year. Only a small percentage of this water is used or stored.

Mozambique is extremely vulnerable to meteorological conditions, particularly drought, flooding and cyclones. Among African countries, it is the third most exposed to climate-related risks, having been affected by 45 significant natural disasters since 1976 (WFP, 2011). Drought is the most frequent natural disaster, occurring every three to four years, particularly in the country’s southern and central regions. Flooding is a problem that occurs along Mozambique’s seven largest rivers, while cyclones mainly affect the country’s coastal areas. Seasonal
variations and extreme climatic events cause crop losses and lead to very unstable food prices (Sitoe, 2005). These factors have a negative impact on production, and consequently, on the availability of and access to food.

Populations are frequently relocated to less fertile regions, which has a negative impact on production. Considering that most of the population lives in rural areas, with agriculture as the main source of livelihood, these resettlements also impact negatively on the diet of these households.

**Institutional Capital: Political institutions and social resources**

Existing institutions are the best channels for disseminating messages and implementing food security and nutrition programmes.

The country is divided into 11 provinces, 152 districts, 436 administrative posts, and 1,217 localities. The population is distributed across approximately 8,000 settlements, where the system of local authorities (estimated in approximately 45,000 community authorities) includes three locally legitimate echelons, with 6,300 in the first echelon, 10,700 in the second and the remainder in the third. The number of rural communities is estimated at between 4,500 and 5,000. It is estimated that over 900 religious denominations and institutions are registered in the country.

Civil society organisation engagement in initiatives to influence policies has been increasing recently; however, the role of advocacy within State institutions and communities is still limited. Some partial and specific gains have been achieved, such as the participation of rural communities in the benefits of natural resource exploitation, and greater dialogue between public, private and civil institutions in response to the claiming and exercising of rights and freedoms by citizens, either individually or organised into different forms of association. Many of these organisations are involved in activities linked to agricultural production and nutrition.

**Population and human capital**

According to the 2007 population census, the total population of Mozambique grew by 28% between 1997 and 2007, which is equivalent to an annual growth rate of 2.4%. Approximately 70% of the Mozambican population lives in rural areas, with agriculture as their main livelihood; around 40% of the population is concentrated in the provinces of Nampula and Zambézia, in the northern part of the country. Mozambique’s population is predominantly young. Women account for a little more than 50% of the population, at a male-to-female ratio of 91:100 (INE, 2010).

It is estimated that the average household comprises 4.7 members in urban areas, and 4.2 members in rural areas (UNICEF, 2011). Population density is, on the whole, low, with approximately 26 inhabitants/km². However, pressure can be felt on natural resources in some regions, particularly regarding the loss of ability to continue shifting agriculture practices.

The highest population growth was recorded in Maputo province, which increased by 52% between 1997 and 2007. The population of the city of Maputo increased only slightly, since the vast majority of migrants settled on the outskirts, beyond the capital’s administrative limits and in smaller cities/towns.
2.2. THE FOUR PillARS OF FOOD SECURITY

2.2.1. Food availability

Food availability is guaranteed when adequate quantities of food are produced and are readily available to the people. Availability relates to domestic production, import capacity, food stocks and food aid.

The Agricultural census shows that food production is concentrated in the north (CAP, 2011). Food production is carried out, to a large extent, over small plots of land and is dominated by roots and tubers (especially cassava), cereals (maize, pearl millet, sorghum and, to a lesser extent, rice), groundnuts and pulses (Abbas, 2015). Maize and cassava are the main food crops grown by 80% of smallholder farmers (FAO, 2012). Pulses, roots and tubers are grown by approximately 70% of households (World Bank, 2011). These crops are primarily consumed locally, although part of the maize produced in the north is exported to neighbouring countries.

Smallholder farmer yields are very low due to limited or no access to agricultural extension services, as well as to improved inputs, in addition to significant post-harvest losses. For example, maize productivity is approximately 800 kg per hectare, which is less than half the average for the Southern Africa region.
Although the production of some food staples has increased significantly since the end of the twentieth century, national per capita production has declined in recent decades. With the exception of cassava, total per capita agricultural food production has not changed significantly, remaining at very low levels (Graph 3).

The link between agricultural research and extension work is weak, resulting in a poor transfer of technologies to producers. The number of full-time agricultural researchers in Mozambique increased by almost 12% a year between 2000 (120) and 2008 (263), placing Mozambique in a stronger position when compared to other Southern Africa countries, namely Botswana, Malawi, Zimbabwe and Zambia. However, given the vast diversity of its agro-ecological areas and regional cultivation patterns, Mozambique needs a greater number of agricultural researchers and experts.
Consumption exceeds national production of rice, wheat, vegetable oils and meat (beef and chicken), and as such these commodities must be imported (World Bank, 2011). On the whole, the country is self-sufficient in terms of maize, cassava, beans and pulses (Graph 4). However, the food trade balance is increasingly negative and the prices of imported goods are subject to variations in international markets, exchange rates and other factors.

The fisheries sector contributed with approximately 2% of the GDP, which translates into a consumption of around 10 kg fish/person/year. In the 2005-2009 five-year period, 86% of total fish production came from the small-scale fisheries sector, 14% from the industrial and semi-industrial sectors, and less than 1% from aquaculture. In 2012, an evaluation of the sector’s performance found that overall production reached 189 thousand tonnes (IDPPE, 2014), with a continued under-utilisation of the potential of aquaculture.

Between 2008 and 2014, the small-scale fisheries sector was responsible for approximately 90% of total production, despite this being only one-third of the total labour force in the fisheries sub-sector. A little over 80% of the fish consumed is produced locally, with the remainder being covered by imports (Graph 5).
Livestock production in Mozambique is very important to the livelihoods and nutrition of its people. Livestock farming is practiced predominantly by the family sector, mainly extensively, with little or no use of improved breeds and inputs. It constitutes a source of savings and of wealth for breeders (particularly in the southern region, where cattle are concentrated), guaranteeing both their food security and improved income. According to data from the 2008 National Agricultural Survey (TIA), approximately 88% of households engage in livestock production.

Following a substantial decline in livestock numbers between 1981 and 1994, according to data from the 2008 National Agricultural Survey, there were 1,683,589 head of cattle, concentrated in the southern and central regions, and 4,844,002 goats concentrated in the central region of the country. According to the same source, there were also 1,532,793 pigs and 252,227 sheep. Poultry breeding is carried out all over the country and represents an important source of food security and income for the population, particularly for the poorest households.

Source: IDPPE (2014)
2.2.2. Access to Food

Access to food is ensured when all households and all individuals within those households have sufficient resources to obtain adequate food (through production, purchase or donation) for a nutritious diet (Hanson, 2013). Access is also related to transport and market infrastructures.

According to MISAU standards, the monthly diet of an individual should comprise 3 kg of rice, 9.1 kg of maize meal, 2 kg of dried beans, 0.5 kg of groundnuts, 3.5 kg of dried fish, 0.5 litres of oil, 1.2 kg of sugar, 1 kg of salt, 3.4 kg of leafy greens and 3.6 kg of seasonal fruit. (SETSAN, 2009; 2014). Most of these products (95%) are produced by small-scale farmers, whose levels of production and productivity are low. Maize productivity in Mozambique is around 800 kg per hectare, less than half the average for the Southern Africa region.

A study conducted by SETSAN in 2014 revealed that of the total number of markets visited, the products on sale were as follows: 44% had maize grain, 70% had maize meal, 85% had husked rice, 7% had sorghum and 4% had pearl millet. On the demand side, the general increase in food prices makes it difficult for households to access food.

According to SETSAN (2014), the basic food basket for a family of 5 costs, on average, between 7,500.00 Meticais/month (purchasing maize grain) and 8,300.00 Meticais/month (purchasing maize meal). However, the minimum wage in 2013 and 2014 for the agriculture, livestock, forestry and wildlife sectors was 2,500.00 Meticais/month.

Processing capacity in Mozambique is low. The value adding chains for agricultural products are still in the early stages of development due to problems relating to production, quality of the products, lack of functional markets, high transport costs, as well as issues relating to market information systems, access to financial services and to credit (FAO, 2012). Additional problems involve low investment in the sector and competition with goods imported without paying import duties.

The marketing of products is also a challenge in Mozambique due to difficulties in accessing markets. Producers face many problems to place their products, with the most frequent being the lack of traders, long distances to markets, lack of transport and low prices, among others (SETSAN, 2014).

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6 According to the same study, markets were visited in 565 listed areas selected for the food price and qualitative availability survey.
7 Increased by around 91% between 2007 and 2013 (SETSAN, 2014)
Food Security and Nutrition Challenges in Mozambique
2.2.3. Food utilisation and nutrition

Utilisation is ensured when the human body is able to ingest and metabolise food. Nutritious and safe diets, adequate biological and social environments and proper health care to avoid disease help to achieve adequate utilisation of food. This pillar relates to food safety, hygiene and processing practices, and to the quality and diversity of the diet.

Approximately half of the Mozambican population suffers from the consequences of chronic malnutrition, and what is worrying is that this situation has not improved much in recent years. Data from the 2011 Demographic and Health Survey (DHS) confirm that chronic malnutrition in children under the age of 5 continues to be a significant public health problem, and there has been no significant decrease in its prevalence since 2003. In 2011, the DHS estimated the chronic malnutrition prevalence at 43%, against 48% in the 2003 DHS, i.e., a reduction of only 5 percentage points in 8 years (MISAU, INE and ICFI, 2013; Graph 6). The provinces of Cabo Delgado and Nampula have the highest rates in the country (>50%), while the rates in Zambézia, Niassa, Tete and Manica have intermediate levels (>45%). The provinces with the lowest rates (<40%) are Inhambane, Gaza, Maputo Province and Maputo City (MISAU, INE and ICFI, 2013).

The percentage of children suffering from chronic malnutrition is higher among children living in rural areas (46%) compared with those living in urban areas (35%). In total, 43% of the children under five are chronically malnourished, 16.9% are underweight, and 6.7% suffer from acute malnutrition (MISAU, INE and ICFI, 2013). Prevalence of chronic malnutrition is slightly higher among male children (45%) than female children (41%).

Although the prevalence of exclusive breastfeeding of children increased between 2003 (30%) and 2011 (41%), the proportion of children aged six months or older with a minimum number of daily meals of maternal milk remains low (MISAU, INE and ICFI, 2013). Evidence shows that socio-cultural practices, combined with the process of socialisation and the policy of 2 months’ maternity leave, are obstacles to the practice of exclusive breastfeeding, particularly for women in remunerated employment. Sociocultural influences have very often led to supplementary feeding in infants under 6 months of age (MISAU, INE and ICFI, 2013). Furthermore, the risk of chronic malnutrition is twice as high among children aged between 0 to 5 years whose mothers did not go to school or only attended primary school (for at least a few years), compared with children whose mothers have secondary education (at least some years).

There are several factors that cause or are linked to chronic and acute malnutrition. Firstly, the high poverty index, which translates into deficient caloric intake due to poor access to staple foods and, secondly, poor absorption of nutrients due to infectious and parasitic diseases (MISAU/INE, 2005).

The 2008 National Infant Mortality Study confirms malaria as the main cause of death among children in Mozambique: 33% of deaths among children under the age of 5 are attributed to malaria, and 46% of deaths among children aged 1-5, are attributed to malaria.

In 2010, there were more than 1.7 million Mozambicans living with HIV, of which 55% were women, 9% were children under 15 and 5% were children under 5 (UNICEF, 2011). The issue of diarrhoeal diseases is another enormous challenge that needs to be overcome in order for measures to fight malnutrition to be effective.

The most common micronutrient deficiencies are linked to a lack of vitamin A, iron and iodine. The first, and only, national study conducted in Mozambique on vitamin A deficiency in children aged 6 to 59 months, and their respective mothers, showed that 69% of children under 5 suffered from vitamin A deficiency, compared

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8 “Food security, inclusive growth, sustainability, and the post 2015 development agenda – background paper” presented to the High Level Panel Meeting by Craig Hanson with contributions from Tim Searchinger, Betsi Otto, Brian Lipinski, Kelly Levin and Richard Waite.”
with only 11% of mothers. Of these, 14% were severely deficient and 55% moderately deficient (Ismael et al., 2003). Vitamin A deficiency reduces resistance to infections and, consequently, increases the infant mortality rate. It is estimated that the correction of this deficiency could contribute reduce the infant mortality rate between 23% and 25% (Ismael et al., 2003 and MISAU/INE, 2005).
The results of the 2011 DHS show that iodine deficiency is endemic in Mozambique. Less than half of children aged between 6 and 59 months (46%) live in households where iodised salt is consumed. A higher percentage of households with iodised salt were recorded in urban areas (52%) compared to rural areas (43%). The presence of iodised salt in households is clearly correlated to socioeconomic levels, varying between 28% in households in the lowest wealth quintile to 65% in households in the highest wealth quintile. There is also a positive correlation between the level of education of the mother and the presence of iodised salt in the household.

Micronutrient deficiencies have also contributed to the death of women of reproductive age. According to the study conducted by Ismael et al. (2003), approximately 50% of women of reproductive age are anaemic and face a higher risk of death during pregnancy and of giving birth to underweight babies. Micronutrient deficiency is higher among children under 5 years of age (75%).

The prevalence of malnutrition diminishes as spacing between births increases and as levels of education and wealth quintiles improve (MISAU, INE and ICFI, 2013). In this context, the 2014 food security baseline study indicates poverty as a determining and predominant factor of food insecurity. The study recommends interventions to promote job creation and self-employment opportunities for the more vulnerable households and the stimulation of adequate access to food and nutrition for the entire Mozambican population.

The population grew at an average annual rate of 2.7% (INE, 2010b) between 1997 and 2007, well above the world average of 1.2% (Population Reference Bureau, 2010). This extraordinary growth of the Mozambican population is associated with fertility levels which remain high, particularly in rural areas, together with a relative decline in the mortality rate.

The demographic dynamics in Mozambique has influenced the diet and eating habits of the population. Evidence from some studies has shown that the change in eating habits, particularly among the urban population, has contributed to increased weight gain and obesity, and to a decline in physical fitness among the urban population; such changes have not, however, been accompanied by a reduction in the prevalence of infectious diseases (Prista, 2012). Urbanisation has also led to an increase in sedentary lifestyles, though there has been no improvement in hygiene and sanitary conditions. Education and eating habits, as well as behaviours of both men and women play an important role in the nutritional situation.
Access to drinking water and basic sanitation also influences the nutritional status of the population. Despite the relative progress made in Mozambique in recent years, in terms of sanitation and drinking water, over 50% of the population still has no access to basic sanitation. It is estimated that only 47% of the population living in urban areas and 6% living in rural areas have access to adequate sanitation. Both poor hygiene conditions and the lack of adequate sanitation and drinking water have contributed to approximately 90% of deaths from diarrhoeic diseases, particularly in children under five years of age (Chidassicua, 2015).

2.2.4. Stability

Stability is ensured when adequate quantities of food are produced and these are at people’s disposal (Hanson, 2013). Stability is directly linked to climate variability, price fluctuations, and political and social factors.

As previously mentioned, Mozambique is vulnerable to extreme meteorological events and its economy is also vulnerable to both economic and social shocks.

In recent decades, climate change has increasingly impacted Mozambique, and in particular the lives of smallholder farmers who are highly dependent on natural resources. Temperatures are rising, rain patterns are changing and the traditional seasons (hot and rainy, cool and dry) are increasingly more erratic, which affect the planning of agricultural activities. The adverse effects of climate change also have an impact on the livestock sector, as changes in rainfall patterns affect the availability of forage, grazing areas and watering points (FAO, 2015)\(^9\).

The country and its economy are also vulnerable to economic and social shocks. Political stability and security in the country have been threatened since 2013, as a result of tensions between the government and the main opposition party, particularly in the central part of the country. This situation is disturbing the livelihoods of the population living in the areas of conflict, affecting food availability, access and utilisation. In certain cases, this is exacerbated by migration to more peaceful areas, including neighbouring countries. It also affects the transport infrastructure with linkages to the main ports and, therefore, the country’s economy as a whole.

\(^9\) “Strengthening capacities of agricultural producers to cope with climate change for increased food security through the Farmer Field School Approach – Project GCP/MOZ/112/LDF”.

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Food Security and Nutrition Challenges in Mozambique
3. ANALYSIS OF IMPLEMENTED POLICIES AND STRATEGIES WITH IMPACT ON FOOD SECURITY AND NUTRITION: GAPS AND PROPOSALS

This section analyses the difficulties facing the current food insecurity situation and presents proposals to overcome and promote healthy food and safe nutrition. It also presents a set of key recommendations, part of which draw on and adapt interventions included in national plans and strategies.

Based on the contextual analysis in section 2 of this document, performed based on the FAO/WFP four pillars of food security and nutrition and DFID’s five types of capital, six bridging topics are addressed: (1) food production, food supply and markets; (2) access and income; (3) natural resources and infrastructure; (4) public services and nutrition education; (5) institutions; and (6) policies and strategies.

There are several proposals, from those made, that may be implemented in the short-term and whose effects may be felt immediately. Others are medium- to long-term, and their implementation and effects may only be felt after 3-4 years. Of these, a significant part requires fundamental changes to the model of growth and accumulation, as well as new economic policy measures.
3.1. Domestic production, food supply and markets

Analysis and gaps

Smallholder farmer yields are low, mainly due to their dependence on rain-fed agriculture practices, little or no access to improved inputs (particularly seeds) and technologies (particularly those that improve soil fertility), significant post-harvest losses and poor management and control of endemic plant and animal diseases. This is partly due to the weak linkages between agricultural research and extension services. Some progress has been made in agricultural research in that which concerns improving and adapting genetic materials to achieve different objectives (productivity, dietary quality, growth cycles, etc.). However, these advances reach the majority producers only occasionally. According to Sitoe (2014), few studies have been conducted to assess the impact of the restructuring of agricultural research and the factors influencing the low adoption of new agricultural technologies and innovations. Sitoe also considers that continued use of conventional approaches to the production and transfer of technologies in defining research priorities may be one of the causes of the low social impact of research in Mozambique.

Diversification of production among most producers is low, and a diversified diet is not ensured. Diversification is also necessary to ensure stable income throughout the year. In this context, animal production, particularly small breeds, should be promoted as these are an important source of income for smallholders. Many households use cattle as a form of social prestige, savings and wealth, and not for economic purposes.

There are indications of loss of soil quality in several parts of the country. No sufficiently effective measures have been taken to counter this trend, nor is there sufficient monitoring of changes in soil quality in areas where mechanisation and the use of chemical products have been intensified.

Food supply varies throughout the year, essentially due to the seasonality of production as well as to the poor storage and processing capacity at different levels (from household to national level). As a result of the inconsistency of supply, there are significant price fluctuations throughout the year; this situation is aggravated by poor communication between markets, which could have some price equalising effect.

Production is very rigid, with little capacity to adapt to the new demands resulting from urbanisation and from income increases in some population segments. Programmes to provide fortified foods and other forms of food supplements, as well as ways to disseminate the forms of using local products to improve diets, are also insufficient.

Some pilot projects have been set up to support/promote local institutional markets to purchase local products. However, because these depend on external resources, and there is no Government budget to cover them, they face the risk of being discontinued after the end of the project. These initiatives should be nurtured, since they boost local production with contractually guaranteed markets and prices, in addition to improving the diet of the social groups most vulnerable to food insecurity and constituting a source of income.

Research and dissemination initiatives to reduce post-harvest losses in agriculture and fisheries are isolated or remain as pilots.

The food distribution system is precarious. Very often, food circuits between producers and consumers fail to preserve the quality and safety of food.

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10 Abbas (2013) analyses the trends of the main foodstuff prices and seasonal differences, as well as differences between different markets in Mozambique.

11 On this subject, see Clements’ Master’s thesis (2015).
Progress has been made in agricultural research in terms of improving and adapting genetic material according to the different objectives (productivity, dietary qualities, growing cycles, etc.). Yet, with the exception of specific cases, advances in research fail to reach the majority of producers.

Even though information on prices has been collected from a wide range of urban markets (by the Ministry of Agriculture, through the Agricultural Markets Information System (SIMA), and by the Ministry of Industry and Commerce), it is not sufficiently disseminated to consumers and producers to allow for timely decisions on what and how much to produce, and on how to apply household income based on the expected benefits and budgetary restrictions.

Equally important is that food and commodity surpluses are sold through monopsonistic (non-competitive) market structures.

The factors mentioned above all contribute to continued market distortions.

Thus, there is no consistent and continued market intervention strategy, such as, for example: establishing physical food and financial reserves for emergency situations; purchase of produce from agricultural production areas not reached, for whatever reason, by the private sector; purchase and storage of goods with a view to stabilising supply and prices.

Although food stabilisation measures were taken during the colonial period and following the country’s independence, the current mandate of the Cereals Institute does not include this type of intervention. Commodity exchanges have shown to be ineffective, due to a lack of resources and organisational and technical capacity. Silos, built and managed in recent years by the private sector, have not performed these functions and their level of utilisation is very low.

Integrated value chains that add value to agricultural products are still at an incipient stage due to problems with production, quality of products, lack of functional markets and limited access to financial services and credit (FAO, 2012). These factors are exacerbated by low investments and competition from products imported without paying import duties.

All of the factors mentioned above also affect the fisheries sector. Low production and productivity of small-scale fisheries results from limited access to improved fishing boats and gear, inadequate use of fishing techniques, poor development of aquaculture, climate change factors, poor management of fisheries resources, and inadequate fishing and processing techniques (FAO, 2012).

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12 Ministry of Industry and Commerce has an agricultural commodities exchange, however, it has difficulties and a shortage of resources for its operation.
The main **CHALLENGES** related to low production and productivity in agriculture, fisheries and livestock breeding may be summarised as follows:

- Low use of agricultural inputs, particularly seed and fertilizers.
- Loss of soil quality and fertility.
- Large post-harvest losses in agriculture and fisheries.
- Poor management and control of endemic plant and animal diseases.
- Poor linkage between agricultural research and extension services.
- Insufficient and inefficient markets.
- Limited storage.
- Poor dissemination of commodity prices.
- Lack of food supply stabilisation mechanisms, namely food reserves (physical and financial).
- Lack of agro-processing to add value to commodities.
- Low access to financial services and credit.
**PROPOSALS**

**Medium-term measures:**

**Concerning agriculture:**

- Rural extension services accompanied by technical and credit “packages” is essential to increase productivity and introduce new crops.

- Production and supply of quality seeds is a priority.

- It is important to build capacity in public rural extension services, with more technicians, training at different levels, and to strengthen them with means and resources.

- Companies focusing on value chains must be encouraged to have active extension services, and not only for crops of their interest.

- It is important to strengthen coordination and functionality between research and extension services, in order for results from research to reach producers.

- A drastic reduction in post-harvest losses (in agriculture and fisheries) must be one of the first priorities.

**Concerning livestock:**

- Ensure grazing areas through their delimitation and, where convenient, demarcate to avoid invasions. Forest fires must also be controlled in order to prevent the destruction of grazing areas.

- Disseminate simple forage conservation techniques.

- Build and maintain livestock watering points, including simple dams and tanks (micro-dams and seasonal tanks).

- Build and maintain infrastructures for technical assistance to livestock, particularly health infrastructures for the effective control of the main diseases.

- Control Newcastle disease in poultry, the most common species among farming households.

- Encourage marketing, ensuring availability at market of age- and quality-appropriate animals to stimulate competitiveness.

- Encourage consumption of milk.

- Use animals as a source of natural fertilizer for small-scale production, such as vegetables.

- Promote the utilisation of slaughtered animal hides.

- Introduce simple meat and game conservation technologies.

**Food Security and Nutrition Challenges in Mozambique**
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Use animals as a source of natural fertilizer for small-scale production, such as vegetables.
Promote the utilisation of slaughtered animal hides.
Introduce simple meat and game conservation technologies.

Medium- and long-term measures:

An increase in production must consider the importance of diversifying the production system, with the inclusion of crops that contribute to a more balanced diet and greater household incomes. It is important to determine, based on the production capabilities and potential of each region and on the production experience/tradition, which crops to promote so that they, in turn, may influence the programmes of regional agricultural research stations.

Monitor changes in soil and water quality, prioritising the most intensively farmed areas, areas with large-scale and artisanal (panning) mining operations and areas vulnerable to erosion.
Disseminate production techniques and systems that conserve and increase soil fertility.
Promote aquaculture.
Encourage agro-industry and local market networks to participate in the incorporation and distribution of fortified products, particularly in primary production areas, to retain local accumulation, generate employment and create greater income. Fiscal incentives protecting the industry and promoting an expansion of agricultural production should be encouraged. An important contribution by the agro-industry to achieve the food security and nutrition objectives is its participation in initiatives aimed at production and at stimulating the development of institutional markets for those products. The quality and preservation of produce must be guaranteed.

It is suggested that the State review its role in stabilising supply and prices to producers and consumers, bearing in mind the terms of trade for producers as well as food price inflation and the broader economic context. Production infrastructure (particularly irrigation systems) and local warehouse and road networks are important to increase and stabilise production, in addition to facilitating the sale of produce and access to markets. It is also suggested that national (territorial) investment priorities be defined based on technical and economic grounds, to produce a greater impact on production.
3.2. Access to food and income

Analysis and gaps

The most recent studies on poverty indicate an increase in the number of poor people in the country and greater social and territorial inequalities. The number of poor Mozambicans fell by approximately 1,092,300 between the first and the second evaluation and, between 2003 and 2009 the number of poor people increased by 1,910,000. Between 1997 and 2009 (12 years), the number of poor people increased by 818,000. Other studies have revealed qualitatively similar trends. More than half the population (55%) lives below the national poverty line, set at 18.40 meticais per day (INE, 2011; Francisco, 2011). Rural poverty is higher than urban poverty in terms of the percentage of the population.

During the period presented, the growth rate of the economy was, on average, between 7% and 8% and the GDP per capita increased by approximately 5%, coinciding with a non-reduction in the percentage of poor population (between 2002/2003 and 2008/2009) and an increase in the number of poor.

This means that growth benefits are concentrated and it is not socially inclusive. This is the result of a development model in Mozambique that is based on a pattern of external extractive accumulation, concentrated socially and territorially by sector, and aided by external resources. The issue of food security is not a priority in this model.

**Table 1. Population, Exchange rate and Gross Domestic Product (GDP)**

<table>
<thead>
<tr>
<th>Description</th>
<th>2004</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>18,961,503</td>
<td>25,041,922</td>
</tr>
<tr>
<td>Exchange Rate (MZM/USD)</td>
<td>22.20</td>
<td>30.7</td>
</tr>
<tr>
<td>GDP (millions of MZM)</td>
<td>154,271</td>
<td>535,533</td>
</tr>
<tr>
<td>GDP per capita (MZM)</td>
<td>8,136</td>
<td>21,385</td>
</tr>
<tr>
<td>GDP per capita (USD)</td>
<td>366</td>
<td>697</td>
</tr>
</tbody>
</table>

*Source: INE, 2015*

The unemployment rate remains at 17%, although formal employment accounts for approximately 8% of the total labour force, with the remainder being made up of informal workers (INE, 2006). Of these, approximately one-third are employed by the public administration (INE, 2002). The formal economy is mainly urban.

Employment in rural areas has increased, particularly in the sectors of public administration, civil construction, large-scale projects and small business initiatives offering catering, transport, trade and other services. Even so, this increase is not enough to absorb the growth of the labour supply caused by the demographic

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14 The state is the largest employer, with the public sector wage bill accounting for approximately 11% of GDP, one of the highest levels in the world.
effect, affecting mainly women and young adults looking for their first jobs. According to the Advisory Committee (“Comité de Conselheiros”) (2013), approximately 370,000 new jobs would need to be created every year in order to ensure regular income earning for the population and to maintain current unemployment figures. This number is almost impossible to achieve with the current pattern of accumulation, and level of domestic savings and of investments in employment-generating sectors.

A significant proportion of the work in rural areas is seasonal and temporary and the minimum wage is below that of other sectors, and is often not respected. Child labour is a reality, with consequences on school performance, particularly among girls. In rural areas, agricultural work, livestock grazing and informal mining for boys, and/or household chores for girls, are routine and widespread, and very often have implications on school attendance. In cities, it is common for children from poor households to be hired informally (through family or friends living in the areas of the “employers”) for the informal trade and to care for children, among other activities, with their wages being unlawfully appropriated.

As a consequence of the low demand for formal labour, informal economies are emerging throughout the country, particularly along the national highways and railway lines (Mosca, 2009 and 2010; Mosca and Selemane, 2013). Studies indicate that the majority of activities generate low income, making it difficult for formal activities to emerge, such as, for example, rural trade.

Employment has been created with the establishment of large investments (although with limited territorial coverage). However, when the implementation of such investments implies resettlement and forced migration, it very often results in production losses, restructuring of production systems and livelihoods, which impact negatively on food production and availability at household and local levels. Government has failed, at different territorial levels, to take sufficient and effective measures to alter, in essence, the poor practices observed in resettlement processes (Mosca and Selemane, 2011; and Mosca and Bruna, 2015).

The terms of trade indicate a loss in the purchasing power of producers. On the other hand, commodity inflation has been higher than inflation in the economy as a whole, which adversely affects net consumers of food and the lower-income social groups. These factors are aggravated by food price variations during the course of the year, over multi-annual periods, throughout the entire national territory (Abbas, 2013).

The capacity to access credit in order to acquire production inputs and products and for small investments is one of the limiting factors to the introduction of higher-productivity techniques. In addition to being scarce and discontinued over time, existing credit lines benefit mainly medium-sized farmers. Difficulties persist on the money supply side, with high credit costs (despite some credit lines being offered at interest rates below market rates), low geographical coverage of financial institutions, complex administrative procedures and the requirement for guarantees. On the demand side, there are difficulties relating to low or negative household savings, low literacy rates, and the non-existence of documents requested by financial institutions, such as a simple identity card.
The main **CHALLENGES** in this area may be summarised as follows:

- Increase in poverty
- Concentration of the benefits of economic growth
- Food security is not a priority in Mozambique’s development model
- High unemployment rate (formal and informal)
- Reduced job creation
- Negative impact of resettlement and forced migration resulting from large-scale investments
- Lack of access to credit for job creation
- Poor geographical coverage of financial institutions

**PROPOSALS**

**Medium-term measures:**

- Encourage the creation of businesses or civil society organisations to provide services in preparing small investment projects for submission for funding; offer management courses; create incubators for new companies; encourage the creation of family businesses, gradually transforming smallholder farmers.

- Identify and implement ways to allow for greater access to credit, namely to mobile banking, promoting informal credit systems with linkage to financial institutions, and education targeting savings.

- Monitor the effects of implementing large-scale investments and take measures to ensure resettlement processes are accompanied by the agreed compensation, creation of production alternatives and generation of jobs and livelihoods that are not inferior to those that existed prior to the forced migration.

- Revisit the compensation rates/levels for assets affected by resettlements.

- Encourage activities with significant local potential in certain areas. For example, encourage livestock and aquaculture activities in areas with potential for these activities, or, similarly, stimulate trade as one of the bases for income generation of residents in border regions.
Long-term measures:

Create coordinated and stable incentives mechanisms, such as credit at reduced interest rates, fiscal benefits and public investment, to stimulate private sector activities that generate stable jobs, particularly in the agro-industry, services, fisheries, civil construction and other sectors, according to the reality of each place.
3.3. Natural resources and infrastructure

Analysis and gaps

Security of land use does not constitute a constraint in the majority of the country. However, given the existence of disputes over this resource, which are not always settled in accordance with the legal framework in force and, generally, not in favour of small-scale producers, it is important to strengthen land administration institutions, in order to bring down the cost for the concession of DUATs (land use and benefit rights) and provide them with greater conflict resolution capacity.

Over-exploitation of forests is a known problem\(^1\), with the production of firewood, coal and poles for “traditional” construction contributing to this. The “deterриториализация” of the relationship between Man and nature, as a result of rural-urban migration, short distance flows towards communication corridors and situations of military instability/conflict were aggravated by recent resettlements. Poverty and low household income, on the one hand, and a growth in the demand for wood products, on the other, have led to this phenomenon. This means that we may be witnessing a change in the role of communities, from guardians to predators of nature.

Commercial timber exploitation has contributed to deforestation of the territory, particularly in terms of species of greater economic value. It is widely known that timber is being extracted in quantities higher stipulated in the licences awarded; that illegal exports of timber are taking place; and that unprocessed timber is being exported, directly contravening the specific laws governing this activity.

The State has shown great weakness and lack of transparency in enforcing the specific legislation regarding forests and timber extraction, and in its capacity to monitor and take action against unlawful operations.

Production infrastructure is, for the most part, in a bad state of repair (Mosca, 2010a) and its use is not generally efficient. In the case of irrigation systems, with the exception of a few irrigation systems operated by large companies, such as sugar producers, their use is negligible – as is the case of the irrigation systems in the Limpopo River valley. Since there has not yet been a manner or organisation found to effectively and efficiently manage the irrigation systems used by small-scale producers, this responsibility has been left to the State and/or public companies. On the other hand, in many cases producers have no business set-up or tradition to manage this type of infrastructure.

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\(^1\) Illegal exploitation of forests is a well-documented problem. Based on estimates in a study undertaken by the National Directorate of Forests and Wildlife (DNFFB) and the FAO (2003), clandestine timber production in Mozambique may account for 50% to 70% of total national production, as mentioned in Mosca (2010a).
Significant investment has been made in recent years, in building irrigation systems. However, households in the communities are not awarded land according to economic criteria. The support and technical assistance given to producers, who for the most part are unfamiliar with production techniques in irrigated areas, covers the first years, and then gradually reduces or even ceases. There have been cases of inefficient use of substantial public investments.

Road transport is a major structural problem in the country. Despite the growth of the rail sector, the majority of cargo and cargo of greater value is transported by road. The proportion of roads in a bad or very bad state of repair, or that are impassable, rose from 28% to 37%, respectively, from 2012 to 2013 (INE, 2014), making it difficult to establish linkages between many areas with high production potential and markets. In the more populated provinces (Zambézia and Nampula), road conditions are even worse than in the rest of the country (Granheim, 2013).

Large investments in major infrastructures should be complemented with more and better side/tertiary roads, to facilitate the movement of goods and people, thereby linking markets and reducing transport costs and consumer prices.

The lack of access infrastructures in areas of greater production and potential result in a loss of competitiveness of some local products, due to the unaffordable increase in transport prices from surplus areas to areas of shortfall. This could imply the need to promote pre-processing, both to guarantee local and national availability, as well as adequacy (fortification), and to ensure that value added locally outweighs the transaction costs. It may also imply the need to revisit measures and policies relating to the export and import of inputs and products, at both regional and global level.

Although progress has been made in terms of the electricity grid coverage (Graph 7), there is still significant scope to increase this coverage (Ministry of Health /INE, 1998, 2005 and 2013). Electrification is expensive but it may stimulate the development of other activities such as roads, transport systems, telecommunications, and banking and financial systems. Furthermore, it is important to mention that electrification only generates significant change in rural areas when accompanied by investments in other areas, such as roads, and credit services and telecommunications (Mulder and Tembe, 2007). The poor quality of electricity is also a barrier to investments.

![Graph 7. Proportion of HH with access to electricity](source)

The poor management of natural resources in general, combined with the risks and disasters brought about by climate change, threaten the environment and society’s productive basis.

The main **CHALLENGES** in this area may be summarised as follows:

- Increase in land disputes
- Increase in deforestation
- Illegal logging and illegal export of timber
- Weak enforcement of land and forestry legislation
- Poor management of natural resources due to: i) weak capacity of institutions responsible for managing land and forests; and ii) insufficient knowledge among communities on the sustainable management of their natural resources base
- Limited access and poor management of productive infrastructures: irrigation systems, drinking water, railways, roads, electricity grid
- Risks and disasters associated with climate change
PROPOSALS

Medium-term measures:

- Strengthen the capacity of institutions responsible for land administration and of institutions responsible for managing other natural resources, so as to allow for proper implementation and enforcement of the respective laws and regulations and to prevent conflicts. Coordination between these institutions must be strengthened at all levels.

- Continuous dissemination of the land law to communities, government institutions and civil society organisations.

- Support communities to manage and supervise the exploitation of natural resources, preventing illegal and predatory activities and uncontrolled forest fires, so as to protect wildlife and grazing areas.

- Empower communities to use their natural resources in a sustainable manner, in order to generate income and jobs (carpentry, brick-making, hunting, fishing, etc.) and to improve their living conditions (building schools and health centres using local materials, road maintenance, opening small irrigation channels, etc.).

- In areas where there are large natural resource exploitation projects, ensure that communities benefit directly from the construction of infrastructures (roads, water sources, greater coverage of the electricity grid) and indirectly through opportunities for business and service provision.

- Regular maintenance of existing infrastructures.

Long-term measures:

- It is suggested that an infrastructures programme be implemented, prioritising programmes that have a direct and immediate effect on production. For example, construction and maintenance of road networks linking the main production areas to markets; actions to defend against natural disasters, such as careful resettlement of populations; strengthen and/or build defence dykes in river valleys; plant trees; and adopt physical planning in the more vulnerable areas.

- Every effort should be made to enforce strict compliance with the land law and respective regulations. Land administrations should be reorganised and trained to ensure full compliance of the law, oversight and conflict resolution. Civil Society Organisations (CSOs) play an important advocacy role, at all levels of the State, to support communities in defending their rights.

- Changes in the quality of soils and water need to be monitored, and techniques and production systems that conserve these resources need to be disseminated. Priority must be given to the most intensively farmed areas, areas with large-scale and artisanal (panning) mining operations and areas vulnerable to erosion.
3.4. Public services and nutrition education

Analysis and gaps

The immediate causes of malnutrition in Mozambique are inadequate quantity and quality of diet and high incidence rates of infectious diseases. Recent studies indicate that chronic malnutrition is more pronounced from the time of conception up to the first two years of life, a period referred to as the first 1000 days (Lancet Series 2008). It is important to highlight that any growth retardation (delay) occurring during this critical period cannot be reversed. Therefore, interventions during this period have the greatest impact and it is increasingly more accepted that this period represents a crucial window of opportunity to strengthen and enhance maternal nutrition and, subsequently, the growth and development of the child (UN Nutritional Group, 2015).

Women’s nutrition and health status has an important impact on child development, particularly during pregnancy and lactation. Early pregnancies exacerbate nutritional deprivation. According to the 2011 Demographic and Health Survey (DHS), 36.7% of births were attributed to adolescent mothers, resulting in a disproportionately high number of low-birth-weight babies who either do not survive, or are subjected to chronic malnutrition and high infant mortality rates. Reduced energy and nutrient intake during pregnancy may result in growth retardation of the embryo, leading to low birth weight and causing additional physical disadvantages in a child which, very often, cannot be compensated for later on in life (UN Nutritional Group, 2015).

Gender inequalities that lead to women’s lack of access to education, basic social services and income-earning opportunities also impact negatively on the nutritional status of children.

There is also evidence that children’s academic performance improves significantly when a meal is provided before classes begin. Studies conducted in countries where programmes of this type have been implemented show that the benefits achieved far outweigh the costs involved.

The State has made significant investments in education and health, expanding access to these services (Table 2). However, in order to ensure that these investments have a greater impact on food production, increasing household incomes and access to food, it is important to strive for a more equitable access to education and, particularly, to substantially improve the quality of education/teaching (World Bank, 2015). A similar observation can be made with regard to health services (Artur and Jorge, 2015). The importance of health and education for food security and nutrition, production capacity and income generation (doing business, employment, etc.) is unquestionable.

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22 Guiding Note for the Issue Paper Formulation for the UDAN Context Analysis 2015
24 Bruna (2015:20) concluded that changes in the main education indicators (number of schools, number of pupils, public spending, etc.) had a limited impact on agricultural production (taking maize as a case study). The main conclusions were: “(1) primary education partially explains the increases in the production of maize in Mozambique; (2) there is a negative correlation between technical education and maize production; (3) maize production can be partially explained by the increase in the number of schools”. However, she considers the influence of education on maize production, including primary education, to be low. This finding does not coincide with the majority of studies of other realities. Bruna presents some contextual reasons that may justify the results obtained.
There have been education initiatives aimed at improving people’s health and diet in schools and health centres. Communities are generally encouraged to use local produce in preparing their meals. Although limited, in some cases food supplementation is provided to pregnant and breastfeeding mothers.

Health centres and schools are vital channels that can be used to implement educational and food support programmes for the more needy/vulnerable social groups (pregnant and breastfeeding mothers, children and the elderly). These two channels may be used (by nutritionists and others) as a means to get the information across to the communities.

Considerable efforts are being made to expand access to drinking and piped water and to reduce the distances to water sources, since this has an impact on households and on the productivity of women and children.

A little over half of the households (51%) have access to improved water sources, but the disparity between urban and rural areas is high, at 84% and 37%, respectively. In rural areas, the main water sources are unprotected wells (42%) and surface water (MISAU, INE and ICFI, 2013; Graph 8).

Table 2. Social infrastructures: schools and health facilities

<table>
<thead>
<tr>
<th>Level</th>
<th>Number of Schools*</th>
<th>Pupils</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE1 and PE2</td>
<td>17 152</td>
<td>5 705 094</td>
</tr>
<tr>
<td>GSE1, GSE2 and TVE (Basic)</td>
<td>996</td>
<td>1 013 853</td>
</tr>
<tr>
<td>TVE (Mid) and Higher Education</td>
<td>89</td>
<td>145 563</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level</th>
<th>Number of Health Facilities**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Centres</td>
<td>1.158</td>
</tr>
<tr>
<td>Health Posts</td>
<td>264</td>
</tr>
<tr>
<td>Hospitals</td>
<td>58</td>
</tr>
</tbody>
</table>

** Source: Ministry of Health.

Graph 8. Proportion of HHs with access to water

The Multi-Sector Action Plan to Reduce Chronic Malnutrition (PAMRDC 2011-2015) estimates that, by 2015, a total of 274 nutritionists would be needed in the public sector. MISAU data reveal that as at 31 December 2013, there were 114 professionals working for the National Health Service in the field of nutrition (22 basic-level, 48 mid-level and 44 higher-level). Available information indicates there is capacity to train approximately 100 nutritionists per year, however, the quality of their training and capacity to work in rural communities may be questionable. These issues may lead us to conclude that the lack of human resources qualified in nutrition (both in terms of number and range of skills), along with the limited capacity of the public sector system (structures, duties, staff, facilities and tools) constitute the main impediments to expanding priority interventions in the fight against chronic malnutrition in Mozambique.

The main **CHALLENGES** in this area may be summarised as follows:

- High rates of malnutrition, particularly chronic malnutrition, in children under five.
- Malnutrition in pregnant women threatens the development of the unborn/new-born child. If a malnourished child is not treated before the age of two, his/her development may be affected for the rest of his/her life.
- Inadequate quantity and quality of diet at household level.
- High incidence rates of infectious diseases.
- Early pregnancies.
- Gender inequalities.
- Lack of access to education and health services and poor quality of these services.
- Limited access to safe drinking water.
- Insufficient number of nutritionists.
PROPOSALS

Medium-term measures:

→ Introduce and expand nutrition education programmes in schools and kindergartens, targeting children and their respective families.

→ In the more vulnerable areas, schools should gradually introduce, whenever possible, the practice of providing a meal prepared using local produce before beginning their activities, as a way of improving students’ performance.

→ Health centres should attempt to reach and provide special attention to pregnant and breastfeeding women in their areas of influence, to prevent malnutrition in children below the age of two.

→ Nutritionists should be properly trained to work with communities to identify and disseminate messages aimed at improving general eating habits and hygiene practices.

→ Civil society organisations and local media should support nutrition education programmes at community level. To this end, members and professionals from these areas should be properly trained.

→ Improve sanitation and access to water. Programmes underway aimed at building latrines, boreholes, wells and water reservoirs must be expanded and strengthened. These programmes should be accompanied by education campaigns on sanitation and hygiene to reduce water-borne diseases, especially diarrhoea.

→ In communities without health centres, the activities of Elementary Polyvalent Health Officers (APEs) should continue and be strengthened. Community nutrition education should be included in their package of activities.

Medium- and long-term measures:

→ It is important to expand health and school coverage, seeking to correct existing asymmetries in terms of access based on the area and population covered by each health centre and by school in the different education sub-systems.

→ The quality of services must improve, with more and better health technicians and teachers. Training of these technicians requires greater scientific care. Health and education workers should be given incentives to work in the districts and localities, for example, calculating retirement years, tax rebates, and preference in post-graduate scholarships. The State should cover the cost of this positive discrimination.
3.5. INSTITUTIONS, CIVIL SOCIETY ORGANISATIONS AND OTHER DEVELOPMENT PARTNERS

Analysis and gaps

The National Food Security and Nutrition Strategy is cross-cutting and is included in sector policies. It is, therefore, reflected in the programmes of the different institutions, civil society organisations and other development partners.

The Ministry of Agriculture and Food Security (MASA) implements several programmes aimed at increasing the availability of and access to food. Highlighted from among these is the agricultural extension programme “Farmer Field Schools”, which recently introduced a nutrition education module in its curriculum. This programme constitutes a mechanism through which some objectives relating to agriculture and livestock (including adaptation to climate change) as well as nutrition education can be achieved. Although supported by the Government budget and donors such as the European Union, Kingdom of Belgium, the Global Environment Facility (GEF), in addition to several civil society organisations, the programme, with technical assistance from FAO, needs to be strengthened even further to extend country-wide.

An early warning and coordination system has been set up with neighbouring countries to prevent risks related to climate change, and situations of risk are managed by the Instituto Nacional de Gestão de Calamidades (INGC) (National Disaster Management Institute).

The Ministry of Health (MISAU) implements several programmes aimed at preventing and treating the most common endemic diseases and to disseminate good hygiene and nutrition practices. This Ministry has experience in working with community-based civil society organisations to accomplish its mission. One of its most relevant nutrition programmes promotes exclusive breastfeeding for children up to six months and spacing between pregnancies. As previously mentioned, both the coverage and capacity of this Ministry needs to be strengthened.

The Ministry of Education and Human Development (MINED) plays an important role in food security, since there is evidence that job creation, health and food security and nutrition of households improve substantially with the level of education of their members. A pilot school-feeding programme is being implemented in several districts in five provinces, supported by the governments of Mozambique, Brazil, Belgium, FAO and WFP. This programme links local producers to schools, promoting local development. More financial resources are needed in order to extend this initiative to the rest of the country.

In rural areas, schools have significant coverage and may be used as the main vehicle to transfer knowledge and implement nutrition programmes. In order to do this, support needs to be given for teachers to receive specific training as well as dedicated materials. A pilot nutrition education programme is being successfully implemented in primary schools, covering several districts in five provinces, with technical support from FAO. The curriculum was developed between 2010 and 2014, to occupy the 20% of the school curriculum reserved for local content. Teacher and student manuals were prepared, up to Grade 5, in close collaboration with MASA, and approved by the National Text Book Approval Committee (CALE). This programme is generally associated with the establishment of school gardens for teaching purposes. Despite the funding received from the Government and from several donors (EU, Belgium, GEF), more resources are needed to expand its coverage to other provinces.

The Ministry for Land, Environment and Rural Development (MITADER) is promoting and implementing several programmes aimed at protecting the environment and sustainably managing its natural resources. Most of these programmes aim to improve the organisation and capacity of local communities so that they can actively participate in the protection and management of their land, forests and wildlife. The process of
transferring the revenue generated from natural resource exploitation licences back to the community has been slow, incomplete and not completely transparent. For example, funds received may be used to benefit community leaders or for other unimportant purposes (Serra et al., 2014).

In order to ensure food stability, the Ministry of Agriculture and Food Security and the Ministry of Industry and Commerce prepared a national food balance sheet. However, compared to what is done in other critical areas such as commercial transactions, exchange rates and taxes, this balance sheet is neither done at regional level nor is it regularly monitored.

Cooperation partners have tried to coordinate efforts among themselves and with the Government in relation to agriculture, fisheries and nutrition. There is an agriculture and rural economic development interest group (AgRED), another on fisheries and a Nutrition Forum, involving several partners. These groups are the bridge to government structures on matters relating to the compatibility of indicators and definition of targets, among others. The coordination and discussions in the Partners Forum on Nutrition cover five priority areas: governance; behaviour change; food systems; nutrition and health; and, food fortification.

Notwithstanding the coordination efforts underway between development partners and the Government, there are other important cooperation partners that are not included in these coordination structures, namely the private sector, civil society organisation and the academia.

There has been an increase in the presence of civil society organisations in the field of food security and nutrition. In 2003, the Network of Organisations for Food Sovereignty (ROSA) was created in Mozambique. ROSA is a FAO-supported coalition of food security and nutrition advocacy organisations. This coalition gained visibility between 2006 and 2007, when it submitted a Right to Food Bill for public debate. This piece of legislation is currently on hold, and it is unknown whether the obstacle lies with Government or with Parliament (Brito et al., 2015). Several collaboration platforms on different topics relating to food security have also been organised.

Civil society organisations are not supported by public resources. These are included in the so-called “third sector”, carrying out activities that complement those of the State and of the private sector, namely in education, health, sanitation, access to water, and social welfare and protection.

Public institutions that are directly or indirectly responsible for food security and nutrition do not have high enough ranking within Government to allow them to influence public policies. The main government actor for food security and nutrition is the Technical Secretariat for Food Security and Nutrition (SETSAN). Initially a department within the Ministry of Agriculture, in July 2010 SETSAN was formally established through Decree 24/2010, as the body responsible for the coordination and promotion of Food Security and Nutrition (SAN). It must be noted, however, that SETSAN continues to operate on a sector-based approach, instead of on the necessary multi-sector approach. As a result, there are significant weaknesses in terms of institutional coordination at central level, and between this level and the provincial and district public institutions, on such an important cross-cutting issue as food security and nutrition.

SETSAN has faced some instability in terms of its institutional framework, leadership and technical composition. State institutions in general, and those with some influence over food security and nutrition, in particular, have demonstrated weaknesses in fully executing their regulatory and oversight functions, which include monitoring and enforcing laws and regulations. Furthermore, the relationship between public institutions working on food security and nutrition and civil society organisations are, in many circumstances, somewhat strained and lack transparency. This makes it difficult to establish synergies, and empower and defend the communities’ interests and their participation in actions that could contribute to improve food security and nutrition.

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25 The Forests and Wildlife Law and the Mining Law stipulate the transfer of income to the communities. The respective resources should contribute to the creation of income-generating activities to benefit the community and to improve infrastructures.
Producer organisations are still fragile and have limited coverage (Júnior, Dadá and Mosca, 2014). However, there has been significant increase in the number of producer organisations and of civil society organisations engaged in advocacy, research and social movements. These organisations may be promoted and strengthened to achieve the following objectives: increase their members’ production, productivity and income; improve the associations’ internal management; expand the associations’ activity to the next stages in the production chain, in order to retain more added value and, therefore, contribute to an increase in members’ income and the associations’ investment capacity; increase the scale of production and, consequently, the competitiveness of both the associations and their members; gain negotiation power in the markets.

The organization and capacity of communities is still limited. Empowering communities may also contribute to the management, defence, protection and sustainable exploitation of their natural resources (forests, fauna, fisheries, land, etc.), which are vital to the income of households and of the community as a whole. One of the elements of participatory and inclusive development is the empowering of communities to carry out these and other functions.
The main **CHALLENGES** in this area may be summarised as follows:

- Insufficient coverage by government institutions and of programmes addressing the issue of food security and nutrition.
- Inadequate financial and technical capacity of the government institutions, in general.
- Poor coordination and implementation capacity of the institutions responsible for food security and nutrition.
- Greater inclusion of all relevant partners in coordination and discussion platforms.
- Civil society organisations need to receive support from government institutions, in addition to budget increases.

**PROPOSALS**

**Medium-term measures:**

- It is suggested that the State’s organisational structure be revisited so that the entities responsible for food security and nutrition are given greater decision-making powers, more resources, mechanisms and institutional debate and coordination forums, in order to increase their implementation capacity and the effectiveness of programmes and projects.

- The State is expected to revisit the legal and institutional framework and the capacity to enforce the standards and procedures specifically targeting the food system and, also, to regularly oversee (fortnightly or monthly) the food balance sheet, similarly to what is done in other critical areas such as the trade balance and monitoring of foreign exchange and fiscal revenue.

- Food security programmes should be formulated with set deadlines, targets, budgets and allocation of responsibilities to enable monitoring and reporting, as well as accountability for their performance.

- Civil society organisations that fall within the operational concept of the “third sector” should be encouraged and supported by the State, using public resources. Similar treatment should be given to CSOs involved in advocacy, defence of rights and research, and that have food security and nutrition-related programmes.

- There is urgent need for concerted programmes aimed at empowering communities, enabling them to contribute to the implementation of programmes and projects, participate in the sustainable management of their natural resources, find local solutions and defend their rights. Actions should be encouraged to reinforce decentralisation and establish increasingly more representative and active structures at community level. Advocacy CSOs working in the communities should receive State aid for providing these services.

- Dialogue mechanisms should be found at the different levels of implementation of food security programmes and projects, in order to allow for inclusive development and enhancement of participatory democracy.
It is considered vitally important to create the conditions for Identity Cards to be issued to all citizens, as a condition to enable access credit and other services, and to be citizens in their own right.

It is necessary to ensure the transfer of financial resources to the communities, as stipulated in the Land, Forests and Mining Laws. For this purpose, it is important that financial mechanisms (from central level to local level) and the organisation of communities be revisited and strengthened, for effective access to those resources.

**Medium- and long-term measures:**

- Public expenditure should prioritise the areas of the State’s intervention with greatest effect on production (research, agricultural extension services and infrastructures).

- Oversight mechanisms for economic activities and, in particular, for the exploitation of natural resources, should be strengthened.

- Producer organisations should be encouraged through economic and financial incentives and, possibly, with State subsidies and cost-sharing in investments, so as to improve the internal management and investment capacity in the different phases of the production chains.
3.6. Policies and Strategies

Analysis and gaps

According to policy documents, the Mozambican Government’s main priority is the eradication of poverty. Agriculture is an important component of national economic development, with enormous potential for poverty eradication.

The Government’s main interventions in terms of food security and nutrition are reflected in the 2015-2019 Government’s Five-Year Plan, which includes the reduction of chronic malnutrition as an indicator in the human and social development pillar. They are also reflected in the cross-cutting policy documents, namely in the 2008-2015 Food Security and Nutrition Strategy (ESAN II/PASAN) and in the Multi-Sector Action Plan for the Reduction of Chronic Malnutrition (PAMRDC), the 2011-2020 Strategic Plan for the Development of the Agricultural Sector (PEDSA) and the 2014-2018 National Agriculture Sector Investment Plan (PNISA).

There are several Government strategies addressing the issue of food security and nutrition. However, there is no integrated, coherent and effectively implemented Government strategy to address the issue of climate change.

Existing policy documents are, on the whole, well designed and coherent. It should be noted, however, that sector strategies are highly departmentalised and limited in terms of the interdisciplinary approach required for cross-cutting issues such as food security and nutrition. Some documents are excessively technocratic, with little or no focus on the social sciences aspect. In many cases, the documents do not provide details on implementation measures, schedules, budgeting and monitoring programmes, and there is limited accountability for meeting targets.

There have been some successful food security and nutrition programmes and projects with positive results and effects, particularly in the health and education sectors. However, there is a tendency to not fully cover their financial needs, either from the State budget or from cooperation partners’ budgets. Since these programmes and projects depend largely on external resources, their continuity cannot be guaranteed once external financing ends. This set of factors may lead to the perception that there is no consistent, continued and articulated political will for food security and nutrition programmes to be a Government priority.

The weakness of the private sector and of the informal economies has resulted in the Government relinquishing its responsibility for a range of functions such as, for example, supporting producers (particularly the family sector), with marketing activities and the possibility of influencing markets, rural extension services, etc. The principle of “minimal State intervention” appears not to be totally applicable to the country’s context, particularly in such important issues as food security and nutrition. The regulation, monitoring, oversight and penalisation of irregularities have proved to be very fragile and lacking in transparency.

The main macroeconomic management instruments have not been managed in a way that fosters and/or favours agriculture, in general, and food production in particular. In recent decades, the State budget for agriculture has been, on average, less than 5% of total State expenditure. The recommendation of the 2003 Maputo Summit to allocate 10% of the total budget to agriculture and rural development has not been implemented, in a context where the total budget execution of the Ministry of Agriculture is around 80% of its allocated funds. Furthermore, expenditure has not been directed to areas with the largest effects on production, such as research, training and agricultural extension services. On average, more than 70% of agriculture’s expenditure is on “institutional capacity building”, staff (mainly salaries) and “unexpected expenditure”. More than 60% of the expenditure is attributable to the central bodies (Cassamo, Mosca and Dadá, 2013).
Although investment in the agricultural sector was responsible for 27% of total private investment in the economy between 2001 and 2010, this was almost entirely directed at export crops. From 2003 to 2011, the agricultural sector represented about 8% of the total credit to the economy, and once again, the focus was on export crops. While credit to agriculture increased, in nominal terms, by 1.4 times between 2001 and 2011, credit to the transport and communications sector increased by 8.1 times and to trade, by 7.5 times. In 2000, approximately 4% of agricultural holdings received credit and, in 2010, this rose to 2.4%. Subsidies are irregular, inconsistent over time, difficult to implement and favour mainly commercial agriculture (Mosca, Bruna, Pereira and Dadá, 2013; Mosca, Matavele and Dadá, 2012; Mosca and Dadá, 2014)). Exchange rates, which were overvalued until recently, have not favoured the agricultural sector (Biggs, 2011; Mosca, Dadá and Pereira, 2014). The Customs policy, which exempts payment of taxes on food products imported from the SADC region, may be an obstacle to national production.

Several studies show that the pattern of growth and of accumulation is socially and geographically concentrated, generating more poverty, social and territorial inequalities and doing little to create jobs. Official documents reveal a clear priority toward commercial agriculture through the support offered to “emerging” small- and medium-scale farmers and their - perversely functional - integration in the commodities-focused value chains.

These aspects, associated with the risks of access to and deterioration of natural resources, urbanisation, and changes in diet, the low levels of income of the majority of the population, allied to the State’s limited ability to provide and perform essential services, demonstrate the need for the Government and international organisations to give high priority to the issue of food security and nutrition.

The main **CHALLENGES** in this area may be summarised as follows:

- Lack of Government intervention in areas critical to achieving food security
- Departmentalisation of sector strategies limits interdisciplinary approaches
- Scant Government support for the private sector and informal economies
- Inadequate allocation of State budget to agriculture and rural development
PROPOSALS

**Medium-term measures:**

- The Government should redefine its functions regarding rural and agricultural development, moving away from the paradigm of “minimal State intervention” in order to correct the production and market distortions that affect the economy as a whole, and the performance of small-scale producers, in particular.

- Macroeconomic management, particularly by instruments with the largest impact on agriculture and the rural context (exchange rates, credit, money supply, budgets and investment), should be coordinated in order to ensure that the policies, strategies and objectives of the agricultural sector are implemented and achieved.

- Adequate resources should be allocated to conduct a review of the legal and institutional framework of relevant institutions responsible for enforcing standards and procedures specifically addressing the food system.

- Public policies should be stable, and require organic consistency within the institutions and in terms of the mandates, leaders and technical staff and, above all, the strategies driving the implementation and guaranteeing the allocation of the respective resources.

- Functionalities should be found between existing agricultural development models (family sector, agro-business, outsourcing, “emerging farmers”, etc.) to allow for the involvement and shared benefits for all.

**Medium- and long-term measures:**

- The State’s role in rural development and agriculture, as well as the underpinning public and agricultural policies, need to be revisited, to ensure that these do not produce effects that are contradictory to and go against political decisions.

- The economic model needs to be readjusted in order to create more endogenous processes, exploring natural resources and local knowledge, ensuring they become inclusive and participatory processes.
Efforts need to be concentrated in education and health: in improving their management, the training of their staff and encouraging their performance, and in strengthening their links to the community in which they are placed.
4. MECHANISMS FOR IMPLEMENTING THE PROPOSALS

The institutional wealth in Mozambique is significant enough to make it possible to implement the proposals presented: the State reaches over 1200 localities; there are 45000 community leaders closely linked to the State, involved in hundreds of local Consultative Committees; and there are approximately 1000 rural extension officers.

Nevertheless, there is no doubt that schools, with over 18000 units, and health centres and posts, with approximately 1400 units, are the State’s most representative and far-reaching structures, performing the most relevant duties in terms of preparing the ground for achieving the food security and nutrition goals.

Advances in education and health need to be more widespread and, particularly, of better quality in terms of supplies and logistics (books and school materials, teachers, drugs and health workers). These services are important in increasing food security and nutrition, not only due to the programmes implemented through the schools and health centres, but also because, in principle, they increase the productivity, income, and mobility of people as well as their access to food.

Efforts need to be concentrated in education and health: in improving their management, the training of their staff and encouraging their performance, and in strengthening their links to the community in which they are placed.

We propose that the State take the initiative to establish multidisciplinary teams comprising teachers, general nurses or preventive medicine technicians, midwives, nutritionists, rural extension officers, community health technicians and journalists, in addition to representatives from churches and other civil society organisations, including traditional healers. Representation of target groups, particularly mothers, youth, adolescents and even children, must be guaranteed. Merchants and other members of the local economic elite must be approached and involved. Natural leaders of informal markets and airtime vendors must also participate. The establishment of these local food security and nutrition groups should be done around the schools, with local “patrons”, who do not necessarily have to be from among school employees, but must have strong linkages to the respective school directors and heads of health units.

Included in its main tasks will be to follow the established indicators, as well as perform the tasks related to food security and nutrition education and to adults’ access to goods and services, conditioned to the achievement of these targets.

These groups may, upon the initiative of community leaders, be divided into sub-groups with specific tasks, including regular house-visits to communities where chronic malnutrition is high, with the objective of promoting exclusive breastfeeding and women’s literacy; assessing the state of health of households and their children; holding talks with households on malnutrition and alternative diets, in line with the households’ living conditions, to improve their diet; and carrying out actions that contribute to a behaviour change in men, women, youth, adolescents and children. Other examples of specific tasks may be surveillance of health and hygiene conditions and de-worming of children. They may also possibly support school-feeding programmes (snacks), in cases where this is absolutely necessary.
The effectiveness of these groups may be tested in the framework of an emergency campaign targeting food insecurity and chronic malnutrition, after which the need for their continuation, functions, composition and tasks may be re-evaluated.

The establishment of referral centres for nutrition education and recovery is also proposed, particularly in the provinces most affected by chronic malnutrition. These centres should have specialised outpatient services provided by mobile brigades to reach communities located far from the health facilities. Their work should be publicised and, possibly, rewarded through community radio services and at other local events. The establishment of a national network of these groups could be promoted among the youth, who could, and should, create communication mechanisms based on resources that are currently widely available in rural areas.

The role of SETSAN, as the institution systematically dealing with food security and nutrition issues, should be strengthened and further defined in order to promote and coordinate these efforts. Special attention must be given to coordination and monitoring mechanisms, some of which have already been implemented, in order to define periodic evaluation indicators for the food security and nutrition situation, as well as to ensure that studies are conducted to monitor the food security and nutrition situation in the country.

Over and above inter-governmental coordination and coordination with international partners, once again the importance of guaranteeing linkages between the local teams and Civil Society Organisations and the private sector, at district, provincial and national level, is highlighted. This is particularly important in terms of support to community development, advocacy on rights and initiatives to strengthen and develop local institutional markets, such as supplying food to schools, hospitals and kindergartens, by entering into contracts with local producers.
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Notwithstanding the coordination efforts underway between development partners and the Government, there has been slow, incomplete and not completely transparent. For example, funds received may be used to benefit transferring the revenue generated from natural resource exploitation licences back to the community has been slow, incomplete and not completely transparent. For example, funds received may be used to benefit...

Inclusion and participatory management of natural resources are important strategies to achieve these outcomes. One of the elements of participatory and inclusive development is the empowering of communities to carry out these and other functions. The relationship between public institutions and communities and their interests and their participation in actions that could contribute to improve food security and nutrition is therefore, reflected in the programmes of the different institutions, civil society organisations and other development partners.

The Ministry of Agriculture and Food Security (MASA) implements several programmes aimed at increasing the competitiveness of the agricultural and livestock sector, carrying out activities that complement those of the State and of the private sector, namely in education and training, research and extension, input provision, market support, value chain, in order to retain more added value and, thereby, contribute to the income of households and of the community as a whole. One of the elements of participatory and inclusive development is the empowering of communities to carry out these and other functions. Communities are needed in order to extend this initiative to the rest of the country.

The Ministry for Land, Environment and Rural Development (MITADER) is promoting and implementing several programmes that aim to improve the organisation and capacity of local communities so that they can participate in actions that could contribute to improve food security and nutrition. Some of these programmes are associated with the establishment of school gardens for teaching purposes. Despite the funding received and the specific training as well as dedicated materials. A pilot nutrition education programme is being successfully implemented by the Ministry of Health and supported by WFP. This programme links local producers to schools, promoting local development. More financial resources are needed in order to extend this initiative to the rest of the country.

Analysis and gaps

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Public institutions that are directly or indirectly responsible for food security and nutrition do not have high enough ranking within Government to allow them to influence public policies. The main government actor is a FAO-supported coalition of food security and nutrition advocacy organisations. This coalition gained traction through a number of initiatives, including a provincial nutrition and food security forum.

However, there has been significant increase in the presence of civil society organisations in the field of food security and nutrition. Several collaboration platforms on different topics relating to food security have also been created. For example, there is a national level nutrition forum, supported by the United Nations Children’s Fund (UNICEF) and the Food and Agriculture Organization (FAO). This is complemented by several thematic working groups, such as one on agriculture, one on livestock, one on fisheries and a Nutrition Forum, involving several partners. These groups are the bridge to government structures on matters relating to the compatibility of indicators and definition of targets, among others. The coordination and discussions in the Partners Forum on Nutrition cover five thematic areas, including agriculture and livestock.

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Notwithstanding the coordination efforts underway between development partners and the Government, there has been slow, incomplete and not completely transparent. For example, funds received may be used to benefit transferring the revenue generated from natural resource exploitation licences back to the community has been slow, incomplete and not completely transparent. For example, funds received may be used to benefit...

Civil society organisations are not supported by public resources. These are included in the so-called “third sector”, which includes non-governmental organisations (NGOs), faith-based organisations (FBOs), trade unions, universities, research institutions, as well as community leaders.

There has been an increase in the presence of civil society organisations in the field of food security and nutrition. Several collaboration platforms on different topics relating to food security have also been created. For example, there is a national level nutrition forum, supported by the United Nations Children’s Fund (UNICEF) and the Food and Agriculture Organization (FAO). This is complemented by several thematic working groups, such as one on agriculture, one on livestock, one on fisheries and a Nutrition Forum, involving several partners. These groups are the bridge to government structures on matters relating to the compatibility of indicators and definition of targets, among others. The coordination and discussions in the Partners Forum on Nutrition cover five thematic areas, including agriculture and livestock.
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Documents from the internet:


ANNEX 1: CONCEPTS

A set of concepts is used in formulating the analysis, and these will be associated with the tables used for diagnostics, policy analysis and identification of gaps, obstacles, list of intervention priorities and future observations and analyses.

These sets are derived from several sources: dictionaries, studies and glossaries relevant to the topic of food security and nutrition (FAO, 2015; FAO, 2012; WFP, 2015, CFS, 2014).

**Hunger:** temporary or permanent deprivation of enough food to satisfy energy requirements. Hunger may result in malnutrition, but the absence of hunger does not imply an absence of malnutrition.

**Malnutrition:** a condition in which the diet does not provide adequate nutrients required for growth and maintenance, or when the food consumed is not adequately used due to illness. Malnutrition includes both under-nutrition (low weight and height, nutrient deficient, generally in relation to age and biological condition) and over-nutrition (overweight and obese). Malnutrition may be chronic, stunting, measured by height-for-age, resulting from a micronutrient deficiency in the mother during pregnancy, and in mothers and children during breastfeeding, for a period of at least one month during the first two years of life; or it may be acute (seasonal or transitory), wasting, measured by the weight-for-age of a growing child under the age of 5, during any period, generally associated with recent deprivation of food or illness.

**Livelihood:** conditions of the utilisation of and intervention in physical, human, social, natural and financial resources or assets. This includes the capacity, opportunity, framework of formal or informal rights and the means to guarantee basic survival needs, including food, water, shelter and clothing. According to Moser and Norton (2001), physical assets include production means and human output, including equipment, factories, productive infrastructures and others, such as water supply and sanitation, belonging to people, enterprises, governments and the State itself. Human assets include the labour force as well investments related to it, such as education, health, nutrition, skills, knowledge and information. This asset takes into account demographics, decent employment, and health care at household level. Social assets include the rules, standards, obligations, the principle of reciprocity in relationships, solidarity and trust, as well as institutional structures and arrangements which enable people to achieve their goals at different levels – individual, household, community and national and supranational. It also includes rules and processes relating to migration and urbanisation processes. Natural assets include the resources offered by the natural environment, including land and its soils, forests, water, mineral resources and the atmosphere.

Financial capital includes the available financial resources resulting from income, savings, donations or remittances, as well as loans.

**Sustainability:** capacity to maintain, reproduce and develop the level of available resources or assets. This is generally associated with a current generation and future generations. The dimensions of sustainability may be social, environmental and economic.
**Vulnerability:** exposure to natural shocks, such as natural disasters or man-made disasters, such as situations of conflict and other unbearable or unacceptable situations. This may refer to a system or its sub-systems or individual components. It may be assessed at individual, household, local, national or global level, as is the case with other issues related to food security and nutrition.

**Food Systems:** set of activities in the food chain (from production to consumption, recycling and waste disposal), their interactions with biogeophysical and human environments, including power and governance relationships, as well as the outcomes of those activities and their feedback.

**Food Value Chains:** sequence of activities, carried out by different agents which add “value” (not only economical and financial) to food, generally including production, aggregation, (pre) processing, distribution, consumption and disposal or recycling. Agents generally include producers, agro-business, providers (of inputs, non-financial services, and financial services), consumers and government or other institutions of society.

Finally, we used the following definitions and interpretations from the resources of the Committee on World Food Security (CFS), the United Nations Committee on Economic, Social and Cultural Rights, and the International Covenant on Economic, Social and Cultural Rights:

**Food Security:** “exists when all people have physical, social and economic access, at all times, to sufficient, safe and nutritional food that meets their dietary needs and preferences to lead an active and healthy life. The four pillars of food security are food access, availability, food use and stability. The nutrition dimension is fully included in the concept of food security... The food security strategy in Mozambique adds the dimension of adequacy”\(^{30}\).

**Right to Adequate Food:** “the right to adequate food is achieved when every man, woman and child, individually or as a community, has full-time physical and economic access to adequate food or to the means to purchase it. The core concept of the right to adequate food implies the availability of food in sufficient quantity and quality to meet their dietary needs, free from harmful substances and acceptable within a specific culture; access to such food in a sustainable manner that does not interfere with the enjoyment of other human rights (...). Accessibility covers both economic and physical access”\(^{31}\).

Although Mozambican legislation does not yet explicitly contemplate the right to adequate food, it may be inferred from other legislation. Furthermore, a process has been initiated to formalise the right to adequate food.\(^{32}\) The right to adequate food is related to other rights and implies a stand by government structures. Governments intervene in ensuring this right through positions of respect, protection, facilitation and promotion, applying the principles\(^{33}\) of participation, accountability, non-discrimination, transparency, human dignity and rule of law.

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\(^{30}\)Available at ([http://www2.ohchr.org/english/bodies/cescr/comments.htm](http://www2.ohchr.org/english/bodies/cescr/comments.htm)).


\(^{32}\)Also referred to as PANTHER, using the initials in English.
## Annex 2: Existing Policies, Action Plans and Programmes

<table>
<thead>
<tr>
<th>Category</th>
<th>Policies</th>
<th>Strategies and Master Plan</th>
<th>Objectives</th>
<th>Resources/budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Revolution</td>
<td>Comprehensive Africa Agriculture Development Programme (CAADP)</td>
<td>Promote an increase in agricultural production and productivity, establishing the target at 6% annual growth for agriculture. Key pillars: investment in agricultural research, agricultural extension services, education and training as a means to foster growth in agricultural productivity.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Food Security and Nutrition Strategy</td>
<td>Reduce the percentage of children under the age of five with low weight-for-age (chronic malnutrition) by 12%, by 2015.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Food Security and Nutrition Action Plan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food Security and Nutrition Strategy (ESAN) II</td>
<td>Food Security Action Plan (PASAN) 2008-15</td>
<td>Contribute to an improvement of food security and nutrition among populations suffering from chronic malnutrition and/or at risk of hunger, taking into account the different food economic zones in the country.</td>
<td>6.146 million Meticais</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Agenda 2025 (National Vision)</td>
<td>Establish new paths to drive the development of Mozambique.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Strategic Plan for the Development of the Agricultural Sector (PEDSA) 2011-2020</td>
<td>Contribute to food security and income of agricultural producers in a competitive and sustainable manner, guaranteeing social and gender equality.</td>
<td>119 114.5 billion Meticais</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Poverty Reduction Action Plan (PARP) 2011-2014</td>
<td>Increase agricultural and fisheries production and productivity; promote employment; human and social development.</td>
<td>187 billion Meticais</td>
<td></td>
</tr>
<tr>
<td>National Agriculture Sector Investment Plan (PNISA) 2014-2018</td>
<td>Multi-Sector Food Security Coordination and Monitoring Programme</td>
<td></td>
<td>484 million Meticais</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Programme to improve access to and use of highly nutritious food</td>
<td></td>
<td>125 million Meticais</td>
<td></td>
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<tr>
<td></td>
<td>Government’s Five Year Plan (PQG 2015-2019)</td>
<td></td>
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