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The U.S. Government's Global Hunger & Food Security Initiative

Integrating Gender and Nutrition within Agricultural Extension Services

# Mozambique

# Landscape Analysis

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Photo by Hans Goertz

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INGENAES
Integrating Gender and Nutrition within Agricultural Extension Services



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# **Mozambique**
# Landscape Analysis

Working document

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# Contents

# Abbreviations and Acronyms

| | |
|---|---|
| AEASW | Agricultural Extension and Advisory Services Worldwide |
| CAADP | Comprehensive African Agriculture Development Program |
| CIA | Central Intelligence Agency |
| DNEA | National Department of Agricultural Extension |
| INGENAES | Integrating Gender and Nutrition within Agricultural Extension Services |
| IFPRI | International Food Policy Research Institute |
| IIAM | Mozambique Institute of Agricultural Research |
| INE | Mozambique National Institute of Statistics |
| FAO | Food and Agriculture Organization |
| FFS | Farmer Field Schools |
| GII | Gender Inequality Index |
| GMP | Growth monitoring and promotion |
| MINAG | Mozambique Ministry of Agriculture |
| MISAU | Mozambique Ministry of Health |
| PAMRDC | Mozambique Multi-Sectoral Action Plan to Reduce Chronic Undernutrition |
| PEDSA | Mozambique Strategic Plan for Agricultural Development |
| PNISA | Mozambique National Agriculture Investment Plan |
| PRN | Mozambique Nutritional Rehabilitation Program |
| SBCC | Community-based nutrition social and behavior change communication |
| SISNE | Mozambique National Agricultural Extension System |
| SPER | Mozambique Provincial Agricultural Extension Services |
| SUN | Scaling Up Nutrition |
| UNICEF | United Nations International Children's Emergency Fund |
| UNDP | United Nations Development Program |
| USAID | United States Agency for International Development |
| USG | United States Government |
| WFP | World Food Programme |
| ZOI | Zone of Influence |

# Introduction

The Integrating Gender and Nutrition within Agricultural Extension Services (INGENAES) project is funded through the Bureau for Food Security (BFS) of the United States Agency for International Development (USAID) to support the Presidential Feed the Future Initiative, which strives to increase agricultural productivity and the incomes of both men and women in rural areas who rely on agriculture for their livelihoods.[1]

This report is designed as a reference document to assist the kick-off teams in launching exploratory activities in the target country in response to the USAID Feed the Future mission's invitation. This report provides an overview of the current status of Mozambique's agriculture as well as the country's status in relation to the prevalence of poverty, nutrition and gender related issues. The report examines and summarizes Mozambique's agricultural and nutrition policy, and USAID's strategic goals and objectives for the country. Since democratic elections in 1992, Mozambique has been a focal point for governance and development initiatives. This report provides a summary of on-going agricultural projects by the U.S. Government and other donors in the country.

INGENAES supports the development of improved extension and advisory systems (EAS) to reduce gender gaps in agricultural extension services, increase empowerment of women farmers, and improve gender and nutrition integration within extension services by directly or indirectly assisting multiple types of stakeholders within a country, such as farmers, producer groups, cooperatives, policy makers, technical specialists, development NGO practitioners, and donors.

INGENAES efforts will strengthen the capacity of key stakeholders and provide the forum and networks for them to coordinate and reach agreement on policies and strategies to implement improved EAS that better meet the needs of men and women farmers. While INGENAES project will not directly monitor beneficiary impact, it will focus on changes in institutions that directly impact men and women who access agricultural information, training, technologies and nutrition information. Improved services empower women and engage men.

INGENAES will strengthen institutions by identifying their needs and strengthening their capacity to effectively integrate gender and nutrition sensitive information and activities into agricultural extension systems with the aim to promote gender equality, improved household nutrition, and increased women incomes and, subsequently, household food security. Based on the identification of four main gaps in extension services in terms of gender and nutrition integration, INGENAES activities can be divided into the following action areas:

- Build more robust, gender-responsive, and nutrition-sensitive institutions, projects, and

[1]The USAID cooperative agreement (Award No. AID-OAA-LA-14-0008) has been awarded to the prime implementer, the University of Illinois at Urbana-Champaign, the lead organization of the consortium. The consortium also includes the University of California-Davis, the University of Florida and Cultural Practice, LLC. The project is currently working in select Feed the Future countries.

programs capable of assessing and responding to the needs of both men and women farmers through extension advisory services (EAS);
- Identify and scale proven mechanisms for delivering improved EAS to women farmers;
- Disseminate technologies that improve women's agricultural productivity and increase household nutrition; and,
- Apply effective, nutrition sensitive, extension approaches and tools for engaging both men and women.

Indicative activities of the INGENAES project include: learning exchanges, assessments, curricula development, training into action, mentoring relationships, internship experiences, and networks that focus on identifying gender-responsive and nutrition-sensitive innovations that can be promoted by EAS organizations, and adopted by men and women farmers. Developing these outputs collaboratively with agricultural extension experts and other partners will transform extension-relevant institutions working directly with men and women farmers.

In each country INGENAES needs to examine the relationships, identify the key change actors, build their capacity, and provide them the incentives to make changes (e.g., set new policies, employ new management practices, modify organizational structures, make changes in practice, adopt innovations). The key actors will vary from country to country, although policy makers, the Ministries of Agriculture and Health, NGOs and the private sector, and of course, women farmers, are likely to be involved in most countries. Key actors will be identified as part of the needs and scoping assessments. Thus, and in preparation of country level activities, the consortium gathers information and key contacts to develop a landscape study of the agricultural sector in that country, a simple description of the pluralistic extension system, nutrition related initiatives, and gender issues. As such, the landscape study is intended as a preparatory tool and handy reference document for work in country. Each landscape study will be updated periodically as INGENAES continues to engage in that country and identifies new key contacts, organizations, and initiatives.

# Background

Mozambique covers an area of 786,380 km$^2$, including 4,783 km of coastline. It is bordered by South Africa, Swaziland, Zimbabwe, Zambia, Malawi and Tanzania. In 1992, the country emerged from nearly 30 years of armed conflict, spanning the struggle for independence from Portugal and ensuing civil war between government and opposition forces (CIA, 2016). Mozambique has since chartered an uncertain development track. Following two-party elections, Mozambique initially made progress reducing poverty and undernutrition. Progress has since slowed due to "low agricultural productivity, under-developed markets, poor nutritional options and behaviors, and weak government capacity and policy" (USG, 2011). As a result, Mozambique failed to meet its 2015 Millennium Development Goals for health, education and poverty reduction (UNDP, 2015).

## Population

Mozambique has an estimated population of 25.3 million. The majority of Mozambicans are extremely young, with 45.1% of the population between 0-14 years of age, 48.5% between 15-54 years of age and only 6.3% over the age of 55. The median age is 17. At 34 people per km$^2$, Mozambique remains one of the least densely populated on the continent; although this is changing due to a high fertility rate of 5.2 births per woman, and an annual population growth rate of 2.8%. The male-to-female sex ratio for the population is 0.95. The population is predominantly rural with little signs of this composition changing: 68% of Mozambicans currently reside in rural areas (World Bank, 2016). According to the 2007 census, Portuguese is spoken by over 50% of the population, primarily as a lingua franca, but only 12.8% speak it as a first language. The most commonly spoken local languages are Emakhuwa (26.1%), Xichangana (11.3%), Cisena (7.5%) and Elomwe (7%) (INE, 2007).

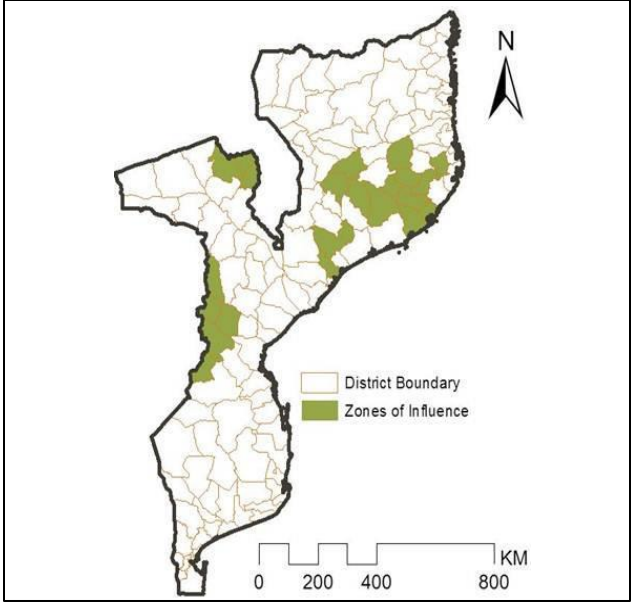
Mozambique has experienced a decade of impressive economic performance, led by the sectors of transportation and communications, financial services and extractive industries. The economy grew 6-8% from 2003-2014 during a period of low inflation. However, economic growth has not been accompanied by the creation of jobs and reduction of poverty. Poverty continues to be prevalent in Mozambique by any measure, with 60% of the population living on less than $1.25 a day and the poverty gap remaining at 21% from 2003 to 2009 (World Bank, 2016). The 2015 United Nations Development Program (UNDP) Human Development Report found an estimated 80% of Mozambican households to be multidimensionally poor (2015).[2] On a national level, Mozambique ranked 178 out of 186 countries in the 2014 Human Development Index, with an index rating of 0.393[3]. Mozambique's index rating suffers further from the distribution of human development: achievements in education, income and especially life

[2] The Multidimensional Poverty Index complements income-based measures of poverty by considering other, overlapping deprivations such as poor health, lack of education and inadequate living standard (World Bank, 2014).

[3] The Human Development Index is a summary measure of average achievement in key dimensions of human development: a long and healthy life, being knowledgeable and have a decent standard of living. Achievement in these dimensions is used to compare and rank the development performance of countries (UNDP, 2014).

expectancy are consolidated in a small fraction of the population. This is represented by an inequality-adjusted Human Development Index of 0.277[4] (ibid.).

**Figure 1. Geographic Focus of Feed the Future Mozambique (USG, 2014)**




The Feed the Future Zone of Influence (ZOI) spans 23 districts across four provinces: Nampula (nine districts), Zambezia (five), Manica (six), and Tete (three) – see Figure 1. The ZOI was selected in order to target vulnerable populations, leverage existing investments and strengthen regional trade networks, the Beira and Nacala corridors. There are 6.5 million people living in approximately 1.6 million households in the ZOI. The target population includes some 1.5 million women of reproductive age (WRA) and 1.2 million children age 0-59 months. Households consist of an average of 4.1 people and women head 38% of households in the target provinces (MISAU, et al., 2011; USG, 2014).

Poverty and malnutrition are particularly prevalent in the ZOI. According to the Feed the Future Zone of Influence Baseline Report, 44% of the population is poor, 43% of children under 5 are stunted, and 51% are underweight (USG, 2014).

## Health and Nutrition

The Food and Agriculture Organization (FAO) classifies Mozambique as a low-income, food deficit country (FAOSTAT, 2016). Mozambique ranks 89 out of 104 countries assessed by the International Food Policy Research Institute (IFPRI) in its 2015 Global Hunger Index (2015). Chronic food insecurity is widespread, affecting nearly one in three Mozambicans. Rates of malnutrition among children under 5 are highest in the Northern provinces, especially chronic malnutrition (stunting) led by Nampula province at 55% - see figures 2 and 3. This contributes to a national rate of stunting of 43% among children under 5 (MISAU, et al., 2011; USG, 2011). The 2010 Comprehensive Food Security Analysis conducted by the World Food Programme (WFP) attributes the prevalence of food insecurity to low agricultural productivity, the rising relative cost of food (38-46% of income expenditures), the risk of climate-induced crop failure, poor access to services and inappropriate feeding practices (2010). The Feed the Future ZOI Baseline Report expands on the poor nutrition options and behaviors underlying undernutrition – see Box 1. These factors contribute to a dismally low life expectancy of 49.9 years and an under-five mortality rate of almost 90 per every1,000 births (World Bank, 2016).

[4] The Inequality-adjusted Human Development Index (IHDI) takes into account the distribution of health, education and income achievements across a country's population. The difference between the IHDI and HDI is considered the loss to human development due to inequality in a country (ibid.).

**Figure 2. Malnourishment Rates of Children Under Five – by Province**

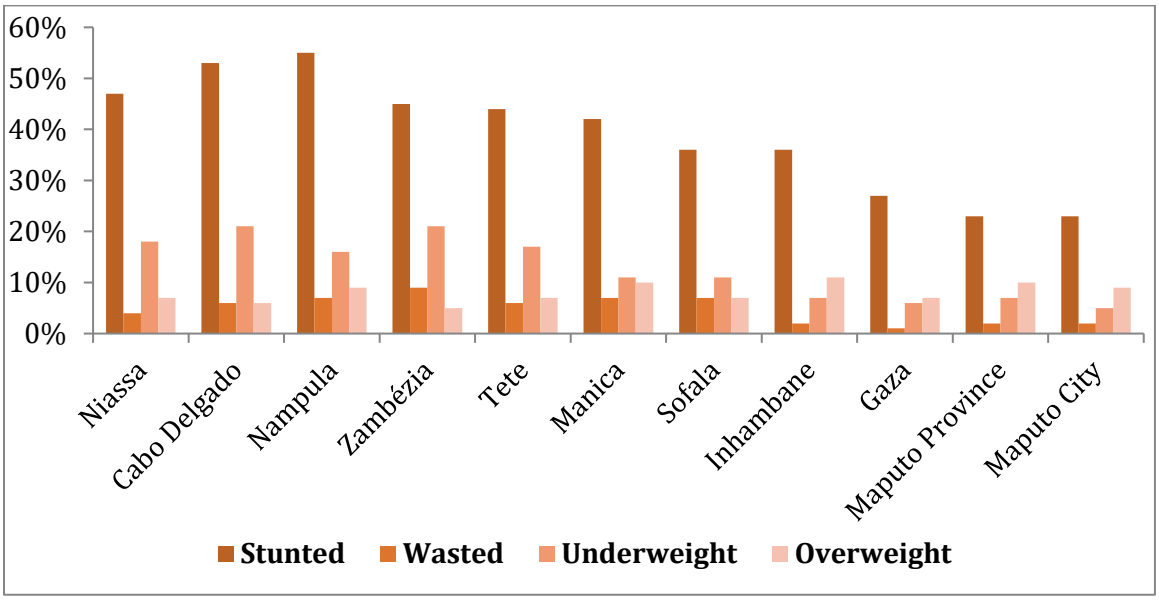
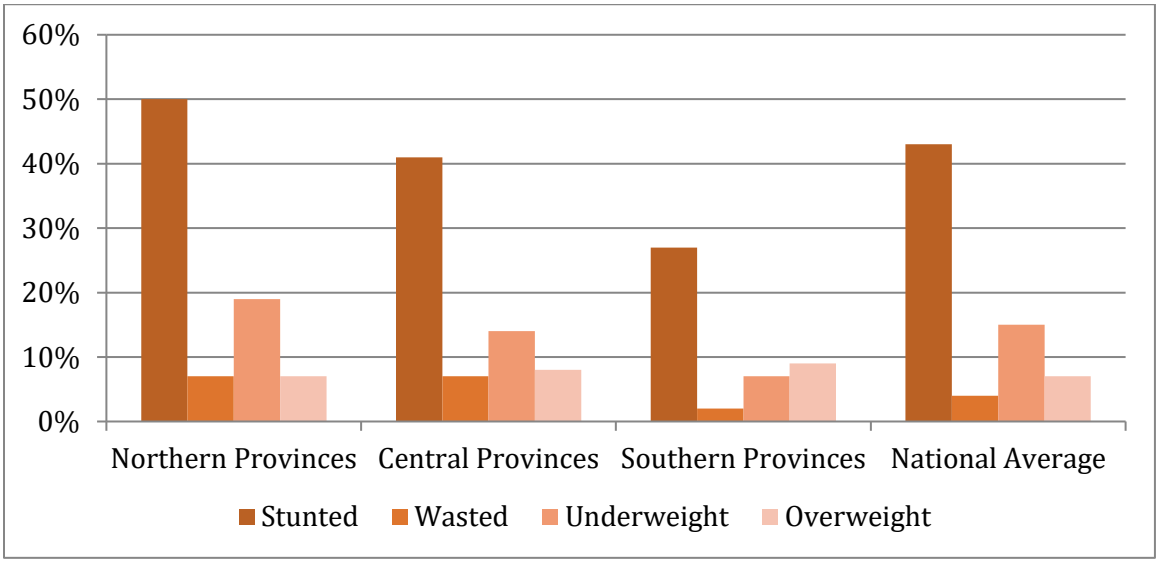



**Figure 3. Malnourishment Rates of Children Under Five – by Region**




Health and productivity are further threatened by a high HIV/AIDS prevalence of 11.1% in Mozambique (World Bank, 2016). Women are disproportionately affected by HIV/AIDS and other STI. Women bear the personal risk of infection, the risk of transmitting the HIV to children through childbirth and the risk of losing their male spouse to HIV/AIDS. For women, losing a spouse represents not only the loss of income and support, but potentially also the loss of family-owned land and assets. Women suffer much higher rates of HIV/AIDS, particularly among younger age groups. According to national statistics in 2003, women aged 15-19 are twice as likely to be infected than men, and women aged 20-24 are approximately four times as likely to be infected than men. Edda van den Bergh-Collier asserts in the USAID Gender Profile in Mozambique: "These rates may indicate that younger women use sexual relations as a survival strategy, particularly with older partners who are more economically established" (2003: 35).

The incidence of HIV/AIDS decreases with the level of education of men and women. A strong link is also demonstrated between the education level of mothers and the overall health and nutritional status of their children (van den Bergh-Collier, 2003; MISAU, et al., 2011). These findings underscore the need to increase access to education.

**Box 1: Nutrition behavior.** "Cereals, tubers, vegetables, green leaves, beans and groundnuts are the primary components of the diet for the majority of the population in Mozambique; however, 58% of calories come from maize and cassava. Infant and young child feeding practices are weak – only 37% of children under 6 months of age are exclusively breastfed. Many mothers feed their children liquids and/or solid foods before they are 6 months old, displacing nutrient and energy-rich breast milk. Poor behaviors extend past infancy: only 9% of children 6–23 months of age in Mozambique are fed a minimum acceptable diet based on breastfeeding frequency" (USG, 2015:6).

## Gender

The UNDP assessed a Gender Inequality Index (GII) value of 0.657 in Mozambique, placing it 146 out of 187 countries measured in 2013. Mozambique performs poorly in the labor, education and health dimensions of the GII: only 26.3% of women participate in the labor market, compared to 75.8% of men; 1.5% of women have reached a secondary or higher level of education, compared to 6% of men; while the maternal mortality ratio stands at 490 deaths per 100,000 live births. Participation of women in the labor market and secondary education is much lower than the regional averages of 63.6% and 22.9%, respectively (UNDP, 2015). This can in part be explained by the early age of marriage and childbearing: for women, the median age of marriage is 18.8; 14% of women that have been married, were married at or before 15 years old; and the adolescent fertility rate is 138 births per 1,000 live births. The same cultural conditions that force girls into early marriage, pregnancy and childrearing pose barriers for participating in labor and education. One exception is the representation of women in *national* government, where women hold 39.2% of parliament seats (van den Bergh-Collier, 2003; MISAU, et al., 2011).

There is strong constitutional support for the equality of men and women in all spheres of political, social and cultural life. The 2004 Constitution prohibits discrimination on the basis of sex. The 2004 Family Law reinforces the equality of women and their equal rights to administer marital property and to devolve and inherit property. The 1997 Land Law asserts the right of women to participate in all land-related decisions. Despite this progressive framework, traditional practices continue to dictate most women's social and economic rights in Mozambique. The formal law governing inheritance and succession remains rooted in the 1966 Portuguese Civil Code. Based on paternalistic principles, the law privileges the property rights of men over women and has been used to divest women of property (USAID, n.d.; van den Bergh-Collier, 2003).

While there are efforts to harmonize the succession law with Constitutional law, there remains the challenge of reforming customary law and traditional practices. Customary law stands at odds with formal law, in that women generally do not inherit land or other assets. Stripped of assets, women are left dependent on relationships with men for access to land. This dependence may put widows and divorced women at risk of losing their homes or access to agricultural land (USAID, n.d.). Disparities in education and representation in governance make women more vulnerable, as women are less likely to be aware of their rights and less able to exercise them. Low rates of literacy and training also confine women to unskilled employment with low returns on their labor (van den Bergh-Collier, 2003).

According to the USAID Gender Profile, the roles that men and women play in agriculture varies from region to region, depending on the crops cultivated and traditional sexual division of labor. These roles align closely with other African countries, where income-generating activities are frequently associated with men, while women take a greater responsibility for carrying out unpaid and domestic labor. Mozambican women are more engaged in the latter stages of agricultural value chains, activities such as processing and marketing (van den Bergh-Collier, 2003). The roles women play in raising children, tending kitchen gardens and purchasing, processing and preparing food singles them out as the leaders of household nutrition (USAID, 2014). Table 2 provides an overview of how labor is typically assigned by sex. In practice, these roles can be fluid. Adult males in southern provinces frequently engage in seasonal labor in South Africa, leaving female members of the household to carry out duties in their absence. The loss of a husband to HIV/AIDs also necessitates that female members take on greater roles in agriculture. In *Women, Livestock Ownership And Markets*, Njuki and Sanginga document increasing rates of cattle ownership and management by women (2013).

**Table 1. Characteristic household division of labor (van den Bergh-Collier, 2003)**

| Men | Women |
|---|---|
| care of large livestock: cattle | care of small livestock: poultry, pigs, sheep, goats |
| off-shore fishing | on-shore fishing activities: net making and repair, fish processing and fishing in rivers |
| horticulture: larger commercially-oriented plots, using inputs and located further from homestead | horticulture: small kitchen gardens tended primarily for home consumption |
| transport of produce to markets | collecting water, fuelwood and livestock fodder |
| agricultural wage labor on medium to large-scale farms | processing and marketing agricultural production |
| migratory labor in manufacturing or mining industries | cooking, cleaning, laundry |
| | care of children |

## Agriculture

Agriculture is the largest employer in Mozambique, engaging more than 80% of the labor force. Women comprise 65% of the overall agricultural workforce and head a quarter of all farming households. Dependence on agriculture for employment shows few signs of changing since the distribution of employment was first measured in 1998. The agricultural sector is characterized by subsistence farming. Only one in five smallholder farmers sell their crops in the market in an average year. Smallholder farms of 10 ha or less account for 99% of all farms; while 72% of all farms cover 2 ha or less (USG, 2014; FAOSTAT, 2016). The average household cultivates an area of 1.5 ha with no formal land title. Mozambique is endowed with 10 agro-ecological regions that support the cultivation of diverse annual and perennial crops (Ge□mo, 2009).

Land is not as much of a constraint to expanding cultivation as are access to labor and inputs. Indeed, land under production increased by 45% from 1999 to 2010 (USG, 2014). The Food and Agriculture Organization (FAO) estimates that of the country's total land area of 79 million ha, there is the potential for agricultural activities on 49 million ha or 62% of the total land area (FAOSTAT, 2016). Despite the recent expansion, arable land area still only covers 5.8 million ha or 7% of total land area. Over 80% of the total cultivated area is used for the production of staple food crops for self-consumption, such as cassava, maize, sweet potatoes, bananas and beans – see Table 2 for the most important crops in terms of total production. Mozambique is highly vulnerable to drought, flooding and climate change. Volatile climate disproportionately affects farmers, almost all of whom rely on rainfall for production. An estimated 3% of cultivated land is equipped for irrigation despite "considerable" surface and ground water resources (USG, 2014; FAOSTAT, 2016).

From 2001 to 2015, the agricultural sector grew 8%. Growth has been driven primarily by increases in land area rather than in productivity (FAOSTAT, 2016). Large-scale private and donor investments have also contributed to growth. Since 2004, more than six million acres have been leased to foreign and domestic investors for agriculture, biofuel and forestry products, accounting for some 7% of the country's arable land – one of the highest rates in Africa (Bourne, 2014). Gross national income (GNI) per capita has nearly doubled during this period, but is still relatively low at $416. This is reflected in the low agricultural value added per worker of $301, more than 50% lower than the regional average of $766 in Southern Africa (World Bank, 2016). Crop yields still lag behind regional averages (FAOSTAT, 2016). The Feed the Future strategy document suggests that yields are "one third of their potential with improved inputs and practices" (USG, 2011: 5).

The Feed the Future baseline study found minimal use of inputs in the ZOI: less than 9% of smallholder farmers use improved maize seed, 5% use chemical fertilizers or pesticides and 9% use animal or mechanized traction. Poor access to credit contributes to low intensity practices: only 3% of farmers receive some form of credit. Farm-to-market linkages remain weak as a function of the subsistence orientation of farmers as well as low-levels of farmer organization (only 7% belong to a farmer-based organization), limited access to price information (34% regularly receive information) and minimal transport and market infrastructure (Ge□mo, 2009; USG, 2014). Extension services only reach an estimated 8.3% to 14.3% of farmers nationwide (Ge□mo, Stevens and Chilonda, 2013).

Female farmers face additional constraints due to lower levels of literacy and numeracy, limited time and mobility for participating in agricultural development, activities, more limited access to inputs, credit, or technologies. Social norms can also undermine the participation and importance of women in agriculture (USAID, 2011). Women confront similar barriers to entering the market. In the Mozambique Gender Profile, van den Bergh-Collier states "Apart from agricultural cooperatives, there is little marketing support for women; they lack collection and sales centers for their products and are unable to establish linkages with traders and exporters." (2003: 2). Customary practices can constrain the ability of women to accumulate and reinvest capital in their businesses (USAID, n.d.).

According to the Feed the Future strategy document, Mozambique's "strategic location and trade corridors (links to Tanzania, Malawi, Zambia, Zimbabwe, and South Africa, as well as overseas markets) could make the country a key player in regional and global food security, if it is able to realize its productive potential" (USG, 2011: 6). Mozambique is already the second largest formal exporter of food in the Southern Africa region. Agriculture's predominance amongst the rural poor, and particularly among women, singles out the sector as a promising avenue for more equitable growth and poverty reduction. The poor performance of agriculture suggests that there are "low hanging fruit" to be gained in improving productivity and incomes.

**Table 2. Crop production, yield and market price – in order of total production. (Data from 2011 and 2012, adapted from USG, 2014).**

| Crop | Production (Metric Tons) | Yield (kg/ha) | Market Price – Producer (MZN/kg) |
|---|---|---|---|
| Cassava | 10,051,364 | 13,180 | 6.06 |
| Sugar cane | 3,393,904 | 73,914 | N/A |
| Maize | 1,177,390 | 749 | 6.79 |
| Sweet potatoes | 900,000 | 7,500 | 7.68 |
| Banana* | 340,674 | 7,571 | 11.47 |
| Beans, dry* | 281,922 | 371 | N/A |
| Sesame seed* | 117,000 | 532 | 25 |
| Groundnuts, w/ shell* | 112,913 | 290 | 10.43 |
| Cashew nuts, w/ shell* | 112,796 | 806 | N/A |
| Pineapple* | 54,000 | 6,353 | 83 |
| Cowpea, dry* | 35,000 | 350 | N/A |
| Mangoes*, mangosteens, guavas | 29,000 | 6,042 | 25.85 |

* Feed the Future/Mozambique target crops

## Agricultural Extension

The National Agricultural Extension System (SISNE) in Mozambique was established in 1987 as one of the four national directorates of the MINAG. While initially carried out entirely by the

public sector, extension is now implemented by a network of public, private and non-profit providers. In 1999, the MINAG developed a National Extension Master Plan to coordinate the emerging pluralistic extension system. The National Directorate for Agricultural Extension (DNEA) and Provincial Agricultural Extension Services (SPER) were established to execute this plan. The SISNE approach is premised on a Farmer Field School (FFS) model which aims to disseminate agrarian technologies, support and build the capacity of farmers' organizations, provide technical assistance and training to farmers and deliver "timely and relevant" information through various communication channels, such as farm visits, workshops, radio, leaflets, and manuals (Ge□mo, Stevens and Chilonda, 2013: 65).

**Box 2: The Platform for Agricultural Research and Technology Innovation (PARTI)** was launched in 2009 in support of the Mozambique Feed the Future value chains. Funded by USAID, PARTI works with international research centers to develop improved varieties of crops, including maize, beans, sesame, groundnuts and pigeon peas. Field trials have selected higher performing varieties with drought-tolerance, disease-resistance, productivity and nutrition characteristics. PARTI promotes the dissemination of these improved varieties through support to seed enterprises and agro-input dealers. The program couples the extension of inputs with demonstrations of improved management practices. These input and management packages are tailored to different farm types in order to provide appropriate and sustainable recommendations to producers. Together these interventions have the potential to improve smallholder productivity in a short period of time. As part of the intervention, a nutrition awareness campaign and nutrition training on household processing and consumption is being undertaken (USAID, 2013).

Despite having operations in all rural districts, the actual coverage of agricultural extension is limited. According to data collected by Ge□mo, Stevens and Chilonda from 2002-2008 (2013), only a fraction of farms are actually reached by extension services. The highest coverage of services was 14.8% in 2005, after which coverage has continued to decline. More recent data on coverage is not available (Ibid.), however available data suggests that the greatest area for improvement is in the public sector, which accounts for less than 25% of extension services. According to Ge□mo, private firms and NGOs provide the remaining 75% of services (Ibid.).

A nationally representative survey of extension recipients conducted by Cunguara and Moder revealed that in addition to the limited coverage of extension, there exist significant disparities in *who* receives extension visits (2011). The study results suggest that public and NGO extension services target households with more education, larger cropped areas, higher farm incomes and those that are members of farmers' organizations – in short, wealthier farmers. The data is not disaggregated by gender of farmer. The authors reason that extension services target wealthier farmers due to "their ability to adopt extension advices, and thus extension workers might want to use them as model or demonstration farmers" (Ibid.: 579).

Targeting wealthier farmers, however, may also increase income inequality since increase in farm incomes will be concentrated among the top income groups. The same holds true for targeting males to the neglect of female farmers and entrepreneurs. *Who* delivers extension also has

implications for who benefits from services. Women are underrepresented at every level of education and training, being less likely to enroll, more likely to drop out and less likely to hold a teaching or extension position (World Bank, 2014, AEASW, 2012).

Informal extension and other services exist through farmers' cooperatives and associations. These organizations assist smallholders to reduce transaction costs, secure higher prices for products and access training and other services. Strengthening women's participation and leadership in farmer associations has been a priority of Title II programming. In communities where Title II is active, 94% of women belong to a farmers' association (USG, 2011: 14). Unfortunately overall participation remains low: only 6.5% of male and female farmers are members of associations and cooperatives. The extension system would benefit from collaborating with farmers' organizations to improve membership as well as their capacity to support the adoption of new technologies (Gêmo, 2006).

## Feed the Future Multi-Year Strategy

Feed the Future/Mozambique contributes to the Feed the Future global *goal* of reducing poverty and hunger. The mission has set a target of a 20% reduction in the prevalence of poverty and in underweight children under-five years of age in the ZOI. The resulting *program objective* is to increase equitable growth in the agriculture sector and to improve the nutritional status of Mozambicans. Progress on growth is operationalized as percent growth in agricultural GDP and rural household expenditures of target beneficiaries. Progress on nutrition is measured by tracking the prevalence of stunted children under-five years of age. The Feed the Future/Mozambique mission seeks to achieve these objectives through *intermediate results* that address the availability, access, stability, and utilization of food (USG, 2011).

The missions invest in three program areas that "address the continuum from food security and basic nutrition to income generation and agri-business growth" (Ibid.: 18) – Box 3.

| **Box 3. Core program areas:** |
|---|
| 1. **Transform income-generating value chains** with nutrition orientation. |
| 2. **Improve nutrition** among children under-five years of age and pregnant women **through social and behavior change communication** activities including growth monitoring and promotion and innovations in supply of nutritious foods. |
| 3. **Support** relevant agriculture, business, and nutrition **policy**, crop **research**, and **technology transfer**. |

Feed the Future/Mozambique has selected four value chains based on their high income potential, nutritional importance and regional importance to the ZOI – see Box 4. The Feed the Future strategy document asserts that these value chains have "high female relevance and participation," noting that women are the primary producers of peanuts and account for nearly 40% of jobs in the cashew processing industry (USG, 2011: 14). Feed the Future seeks to

transform these value chains by providing technical assistance, direct funding to producer groups and market services. The Mozambique Feed the Future Multi Year Strategy document outlines specific activities related to value chain transformation (Ibid.: 25-28).

| **Box 4. Target value chains:** |
|---|
| 1. **Primary value chain:** Oilseeds, including soybean, sesame and groundnuts |
| 2. **Secondary value chain:** Cashews |
| 3. **Secondary value chain:** Fruit, including mangoes, pineapple and bananas |
| 4. USG/Mozambique has proposed to add a fourth target value chain in pulses, covering common beans, cowpeas, pigeon peas (USAID, 2014). |

The multi-year strategy highlights the isolation of subsistence farmers as one of the main barriers to innovation and adoption of improved practices. The strategy identifies the private sector as the most immediate vehicle to "transfer improved seeds and production methods to smallholders and provide them with inputs and access to markets" (USG, 2011: 4). Feed the Future proposes to promote private-sector led models to "increase the productivity and competitiveness of smallholder farmers, emerging farmers and agro-enterprises" (Ibid.:12).

The Feed the Future strategy recognizes that these activities alone will not produce the desired change in nutritional status and recommends "a comprehensive set of nutrition activities [to] improve overall nutrition status of women and children along with private sector engagement" (Ibid.:17). Feed the Future/Mozambique's nutrition component comprises of community-based nutrition social and behavior change communication (SBCC) activities. Nutrition interventions focus on: growth monitoring, promotion of optimal infant and young child feeding practices, and dietary diversity and quality for pregnant and lactating women. USAID/Mozambique also supports capacity building at the Ministry of Health, strengthening national policies for SBCC strategies and growth monitoring and promotion (GMP) and coordination among nutrition stakeholders (USAID, 2016). Information about specific health and nutrition interventions is covered under Annex 1: External Agricultural, Nutrition and Extension Projects.

## National Agricultural Strategy

The Ministry of Agriculture (MINAG) oversees "the implementation of policies on land, agriculture, livestock, forestry, wildlife and aquaculture" in Mozambique. The Ministry currently operates under the Strategic Plan for Agricultural Development (PEDSA) covering the period 2010–2019 (MINAG, 2011). This strategic plan is aligned with regional agricultural development plans through the 2011 CAADP Compact (Comprehensive Africa Agriculture Development Programme). The PEDSA/CAADP supports increased agricultural productivity, value-added processing, market development, integration of nutrition with agriculture, and strengthening the capacity of key institutions "in a sustainable and competitive manner, ensuring social and gender equity" (CAADP, 2011: 2). Through these plans, MINAG targets priority food and cash crops for support – see Box 5 (MINAG, 2014).

| **Box 5. Priority crops under the PEDSA/CAADP** | |
|---|---|
| **Food crops:** maize, rice, wheat, beans, cassava, potato, sweet potato, tomato (more broadly, horticulture crops) | **Cash crops:** cashew, cotton, soy, sesame and tobacco |

The PEDSA/CAADP are implemented through funding allocated by the National Agriculture Investment Plan (PNISA). The guiding goals for the current 2014–2018 funding period dovetail with those of Feed the Future/Mozambique (MINAG, 2014):

1. Achieve an average growth of at least 7% per year over the next 10 years;
2. Reduce chronic malnutrition in children under 5 years of age, of 44% in 2008 to 30% in 2015 and 20% in 2020;
3. Reduce by half of the proportion of people who suffer from hunger by 2015.

In support of the CAADP, Feed the Future/Mozambique provides "policy analysis and advocacy, business and trade policy reform (particularly in the fruit sector), an integrated policy agenda for agriculture and nutrition, and policy supporting growth monitoring and nutrition" (USG, 2011:30). In 2013, Mozambique joined the New Alliance for Food Security and Nutrition, a partnership between African heads of state, corporate leaders and G-8 members to accelerate the implementation of the CAADP (USAID, 2016).

According to the Mozambique Speed Gender Integration Report, the preparation of the PEDSA and PNISA did not engage a "gender lens." The authors attribute this to "The absence of a gender advisor or active gender unit in MINAG," and go on to assert that "The documents contain a generic statement, but not definitive entry points currently" (USAID, 2014: 21). The SPEED report cites the development of an Agriculture Sector Gender Strategy in 2005 as an attempt to integrate gender into programming, but suggests that the strategy has been underfunded and not fully operationalized (USAID, 2014). The gender strategy was created to advance the goal of "guaranteeing equal rights and opportunities for women and men in access to and control of resources and benefits" (MINAG, 2011). A renewed commitment to gender equity by the Ministry will be needed to make good on this goal.

## National Nutrition Strategy

In July 2010, the Government of Mozambique introduced a five-year Multi-Sectoral Action Plan to Reduce Chronic Undernutrition (PAMRDC). The action plan provides a common results framework for nutrition action intended to harmonize the efforts of donors and service providers. The PAMRDC identifies critical target groups, sets out seven strategic objectives, outlines specific interventions and key progress indicators, and identifies which institutions will assume primary responsibility for achieving results. The recently launched Nutritional Rehabilitation Program (PRN) bolsters the PAMRDC commitment to address chronic undernutrition by supporting treatment for moderate and severe acute malnutrition.

In 2011, Mozambique joined Scaling Up Nutrition (SUN), "a global movement that unites national leaders, civil society, bilateral and multilateral organizations, donors, businesses and

researchers in a collective effort to improve nutrition" (USAID, 2016). The United Nations Children's Emergency Fund (UNICEF) and Denmark serve as the donor conveners for the SUN platform in Mozambique. SUN recently funded the Civil Society Platform. The platform is charged with working with government sectors to mobilize and allocate resources for implementation of the PAMRDC. The platform also engages nongovernmental organizations and stakeholders to incorporate nutrition-related interventions in their plans and activities (Ibid.).

## References

AEASW (Agricultural Extension and Advisory Services Worldwide) (2012). *Extension and Advisory Services in Mozambique: A Brief History of Public Extension Policies, Resources and Advisory Activities in Mozambique*. Retrieved from <http://www.worldwide-extension.org/africa/mozambique/s-mozambique>

Bourne, J. (2014, July 1). The Next Breadbasket. *National Geographic*, pp. 30-36. Retrieved from: <http://www.nationalgeographic.com/foodfeatures/land-grab/>

CIA (Central Intelligence Agency) (2014). Country Profile: Mozambique. Central Intelligence Agency World Fact Book. Retrieved from: <https://www.cia.gov/library/publications/the-world-factbook/geos/mz.html>

Cunguara, B., Moder, K. (2011). Is Agricultural Extension Helping the Poor? Evidence from Rural Mozambique. Journal of African Economies, Vol. 20, number 4, pp. 562–595. Retrieved from <http://jae.oxfordjournals.org/content/20/4/562.full.pdf+html>

DAI (Development Alternatives Incorporated). (2014). Mozambique Speed Gender Integration Report. USAID-commissioned report. Retrieved from <http://www.speed-program.com/wp-content/uploads/2014/07/2014-SPEED-Report-009-Gender-Integration-EN.pdf>

IFPRI (International Food Policy Research Institute) (2015). Global Hunger Index. Retrieved from <https://www.ifpri.org/topic/global-hunger-index>

FAO (Food and Agriculture Programme). (n.d.) Gender and Land Rights Database. Retrieved from www.fao.org/gender/landrights/report/en.

FAO (Food and Agriculture Organization) 2009. Low-Income Food-Deficit Countries (LIFDC). http://www.fao.org/countryprofiles/lifdc/en/

FAO (Food and Agriculture Programme). (2007). Country Factsheet: Mozambique. Food and Agriculture Programme: Maputo, Mozambique. Retrieved from: <http://www.fao.org/fileadmin/templates/tc/tce/pdf/Mozambique_factsheet.pdf>

FAOSTAT (Food And Agriculture Organization Of The United Nations Statistics Division). (2016). FAOSTAT Database. Retrieved from <http://faostat3.fao.org/browse/area/144/en>

Gêmo, H. (2016). Lessons From The Database On Agricultural Extension Providers And Key Stakeholders In Mozambique's Feed The Future Zone Of Influence. MEAS briefing paper. Modernizing Extension and Advisory Services Project (MEAS). Retrieved from <http://dev.meas.illinois.edu/wp-content/uploads/2015/04/MEAS-EVAL-2016-Lessons-from-the-Database-EAS-Providers-Walker-March-2016.pdf>

Ge□mo, H. (2006). Extensão Rural Em Moçambique: Evolução, Desafios E Perspectivas [Rural Extension In Mozambique: Developments, Prospects And Challenges] (1975-2006) (p. 149-183). In Políticas Públicas e Desenvolvimento Rural: percepções e perspectivas no Brasil e em Moçambique [Public Policy and Rural Development: insights and perspectives in Brazil and Mozambique]. PGDR-UFRGS: Porto Alegre.

Ge□mo, H. and Davis, K. E. (2015). Addressing human capital development in public agriculture extension in Southern Africa: Assessing Mozambique's experience. IFPRI Discussion Paper 1466. Washington, D.C.: International Food Policy Research Institute (IFPRI). Retrieved from <http://ebrary.ifpri.org/cdm/ref/collection/p15738coll2/id/129645>

Ge□mo, H., and Rivera, W. M. (2001). *Mozambique's move towards a pluralistic national system of rural extension. Agricultural Research & Extension Network*. Network Paper No.110, January 2001. Retrieved from <http://www.rimisp.org/agren03/documentos/agrenpaper_110.pdf>

MISAU (*Ministerio da Saude* [Ministry of Health]), INE (*Instituto Nacional de Estatística* [National Institute of Statistics]) and ICF International. (2011). Demographic Health Survey 2011. Calverton, Maryland, USA: MISAU, INE and ICFI. Retrieved from <http://dhsprogram.com/pubs/pdf/FR266/FR266.pdf>

Njuki, J., & Sanginga, P. (Eds.). (2013). Women, Livestock Ownership And Markets. Routledge: New York, NY.

UNDP (United Nations Development Programme). (2015). Human Development Report 2015. Retrieved from <http://hdr.undp.org/sites/default/files/2015_human_development_report.pdf>

USG (United States Government). (2014). Feed the Future Zone of Influence Baseline Report. Retrieved from <https://feedthefuture.gov/sites/default/files/resource/files/Mozambique_Feed_the_Future_Baseline_Country_Report_English.pdf>

USG (United States Government). (2011). Feed the Future Mozambique: FY 2011–2015 Multi-Year Strategy. Retrieved from <https://feedthefuture.gov/sites/default/files/resource/files/MozambiqueFeedtheFutureMultiYearStrategy_Public_FINAL.pdf>

USAID (United States Agency for International Development). (n.d.). USAID Country Profile: Property Rights And Resource Governance, Mozambique. Retrieved from <http://www.usaidlandtenure.net/sites/default/files/country-profiles/full-reports/USAID_Land_Tenure_Mozambique_Profile.pdf>

USAID (United States Agency for International Development). (2016). Mozambique: Nutrition Profile. Retrieved from <https://www.usaid.gov/what-we-do/global-health/nutrition/countries/mozambique-nutrition-profile>

USAID (United States Agency for International Development). (2013). Mozambique Update: Feed the Future Strategy. Retrieved from <http://crsps.net/wp-content/uploads/2013/03/Mon-D-10-Pimental-FTF-USAID-Moz.pdf>

USDA (United States Department of Agriculture). (2015). Mozambique: Agricultural Economic Fact Sheet. Retrieved from <http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Agricultural%20Economic%20Fact%20Sheet_Pretoria_Mozambique_8-27-2015.pdf>

van den Bergh-Collier, E. (2003). Gender Profile in Mozambique: Analysis and Action Plan for the New Strategy Period 2004–2010. Report for USAID/Mozambique. Maputo: USAID.

World Bank, (2016). World DataBank. Retrieved from: <http://databank.worldbank.org/data/home.aspx>

WFP (World Food Programme) (2010). Comprehensive Food Security and Vulnerability Analysis: Mozambique. Retrieved from <http://documents.wfp.org/stellent/groups/public/documents/ena/wfp226896.pdf>

# Annex 1: External Agricultural, Nutrition and Extension Projects

| Organization | Program(s)/Activities | Region(s) | Timeline |
|---|---|---|---|
| *AGRA (Alliance for a Green Revolution in Africa) / DFID (U.K. Department for International Development) / NORAD (Norwegian Agency for Development Cooperation)* | Beira Agricultural Growth Corridor: promote investments in agribusiness and commercial agriculture | Zambezia, Manica, Sofala, Tete | 2011-13 |
| AGRA (*International Fund for Agricultural Development*) | Rural Markets Promotion Programme (PROMER): agricultural value chain and market development | Nampula, Zambezia, Niassa, Cabo Delgado | 2008-2017 |
| Borlaug Higher Education for Agricultural Research and Development | Coordinate research between local institutions; graduate level training for agricultural researchers | National | Feed the Future funding. Lead implementer Michigan State University; 2013-2018 |
| CGIAR (*Consortium of International Agricultural Research Centers*) | CIP (*International Potato Center*) / Harvest Plus: promoting orange fleshed sweet potato varieties; IITA (*International Institute of Tropical Agriculture*): Improved Seeds for Better Agriculture: cowpea, soybean, banana/plantain, yam, cassava, and maize | National research, programming focused in ZOI | USAID funding; co-implemented with CIAT, ICRISAT and IIAM; 2015-2019 |
| Development Credit Authority Loan Portfolio Guarantee | Banco Oportunidade de Moçambique: guarantee loans of local lending institutions. Female entrepreneur targeted | National | DANIDA (*Danish International Development Agency*); Feed the Future funding. |
| Feed the Future Innovation Labs | Climate-Resilient Beans; Grain Legumes; Peanut Productivity and Mycotoxin Control; Sustainable Intensification; Soybean Value Chain Research | National | Feed the Future funding. Encompasses nutrition and target crops |
| Gates Foundation / GIZ (*German Society for International Cooperation*) | African Cashew Alliance: technical assistance, financing and market linkages. Network of 200 dues-paying member companies, producers to processors to international buyers | National | 2006-present |
| GAIN (*Global Alliance for Improved Nutrition*) | Marketplace for Nutritious Foods: home fortification, behavior change communication, business development | National | USAID/Mozambique funding. 2013-present |

| Organization | Program(s)/Activities | Region(s) | Timeline |
|---|---|---|---|
| IFAD (*International Fund for Agricultural Development*) | Pro-Poor Value Chain Development in the Maputo and Limpopo Corridors; Rural Markets Promotion Programme; Support for National Programme for Agricultural Extension | National | Co-funded by other donors, most programming runs through 2016 |
| IFPRI (*International Food Policy Research Institute*) | Strategy Support Program: research and advocacy for food security policy ; Program for Biosafety Systems: promote responsible development and use of biotechnology | National | 1998-present |
| Land O'Lakes | USDA/FFP: organizational and technical support to dairy producer groups, developing input supply chain, market linkages | Maputo, Sofala and Manica | 2008-present |
| MOZCAPAN (*Mozambique Policy Analysis and Planning Capacity for Improved Food Security and Nutrition Outcomes*) | Support implementation of Agriculture and Food Security Country Investment Plan (PNISA) through: M&E, policy research and outreach, training | National | Feed the Future funding. Lead implementer Michigan State University: 2013-2017 |
| PEPFAR | Phase 3: Nutrition assessment and counseling, health systems, and clinical interventions | National | 2004-present |
| Planet Aid International | Food for Knowledge: school feeding, nutrition education | Cabo Delgado, Gaza, Inhambane, Manica, Maputo, Nampula, Niassa, Tete, Zambezia, Sofala | USAID Funding. Co-implemented with local partner Ajuda de Desenvolvimento de Povo para Povo: 2012-present |
| SCIP (*Strengthening Communities Through Integrated Programming*) | Community-based integrated health programs: nutrition education; screening and referral for acute malnutrition; water, sanitation and hygiene promotion | Nampula, Zambézia | USAID/Mozambique funding. Implemented by Pathfinder International: 2009-2015 |
| Technoserve | FinAgro: financing for Feed the Future target crop producers; mobile savings for women entrepreneurs; seed system support for soy and groundnuts | National | 1998-present |
| USDA (*United State Department of Agriculture*) | Increase agricultural production; improve crop quality; promote better health and nutrition | Nampula, Zambézia | Aligned with Feed the Future goals. USAID/State |

| Organization | Program(s)/Activities | Region(s) | Timeline |
|---|---|---|---|
| | through SBCC interventions | | Department funded. 1988-2013 |
| USAID / ABC (*Brazilian Cooperation Agency*) | Trilateral Cooperation: technical support for horticulture crops, post-harvest processing and research. | Nampula and Niassa | 2012-2016 |
| World Vision | Previous Title II programming; Ongoing extension, WASH, disaster preparedness and child education and protection activities | Zambezia, Nampula | USAID and USDA Title II funding. 2008-2018 |

# Annex 2: Country Based and Nationally Financed Interventions

| Organization | Program(s)/Activities | Region(s) | Timeline |
|---|---|---|---|
| A Fórum Mulher | Policy advocacy for women's protection and inclusion; consulting to promote integration of gender in development programming | National, southern provinces | 2004 - present |
| ADCR (*Associação para o Desenvolvimento das Comunidades Rurais*) | Agriculture extension services, regional farmer networks | National | 2006 - present |
| OMM (*A Organização da Mulher Moçambicana*) | Policy advocacy, livelihoods training for women and OVC | National | 1973 - present |
| CAADP (*Comprehensive Africa Agriculture Development Programme*) | CAADP Compact: align agriculture, food security nutrition objectives with regional initiatives | National | 2011-2018 |
| MINAG (*Ministry of Agriculture*) | Strategic Plan for Agricultural Development (PEDSA); National Agriculture Investment Plan (PNISA) | National | PEDSA: 2010-2019; PNISA: 2014-2018; |
| MISAU (*Ministry of Health*) | Multi-Sectoral Action Plan to Reduce Chronic Undernutrition (PAMRDC); Nutritional Rehabilitation Program (PRN) | National | PAMRDC: 2010-2015; PRN: 2014-present |

# Annex 3: Key Country Contacts

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| Name | Organization | Position | Email |
|---|---|---|---|
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# Annex 4: Annotated list of relevant literature

AEASW (Agricultural Extension and Advisory Services Worldwide) (2012). *Extension and Advisory Services in Mozambique: A Brief History of Public Extension Policies, Resources and Advisory Activities in Mozambique*. Retrieved from <http://www.worldwide-extension.org/africa/mozambique/s-mozambique>

This brief is part of a series of country profiles compiled by the Worldwide Extension Study. The profiles provide empirical data on the human and financial resources of agricultural extension and advisory systems by country and by region. The Mozambique country profile charts the history of public extension, from the origin of the extension service under the Ministry of Agriculture (MINAG) in 1987, to its expansion through the Training and Visit (T&V) system from 1993 to 1997, to the ongoing process of professionalizing the extension service. The profile also describes the pluralization of extension services and highlights key players in the private sector, NGOs and civil society.

Bourne, J. (2014, July 1). The Next Breadbasket. *National Geographic*, pp. 30-36. Retrieved from <http://www.nationalgeographic.com/foodfeatures/land-grab/>

This article describes the proliferation of foreign owned industrial farms in Africa. Bourne describes the process by which large tracts of land are leased under favorable terms by host country governments to foreign entities. Such land concessions have frequently displaced local communities without compensation. Conversely, they also have the potential to create wage labor, contribute to infrastructure development and provide social services not supplied by the state. Mozambique is at the forefront of this trend, having leased more than six million acres since 2004 – accounting for some 7% of the country's arable land.

Cunguara, B., Moder, K. (2011). Is Agricultural Extension Helping the Poor? Evidence from Rural Mozambique. Journal of African Economies, Vol. 20, number 4, pp. 562–595. Retrieved from

This policy paper explores the role of extension in meeting the government of Mozambique's poverty reduction targets. The paper draws on data from a nationally representative household survey implemented in 2005 by the Department of Statistics within the MINAG. The results of the survey suggest that extension increased the farm incomes of recipients by 12%. The authors observe that extension services have the potential to make a significant impact on poverty reduction, but frequently target wealthier households who are relatively more likely to adopt new technologies. The exclusion of poorer households from extension services might contribute to increased income inequality. The authors conclude that the impact of extension can be enhanced through reforms to make public extension services more responsive and by offering incentives to develop technologies that are more appropriate to poor farmers.

Finnegan, W. (1993). "A Complicated War: The Harrowing of Mozambique." University of California Press: Berkeley.

This historical account of the Mozambican civil war details the devastation wrought by the drawn out conflict between *Frente de Libertação* (FRELIMO) and *Resistancia Nacional* (RENAMO). In contested areas of the country, RENAMO waged a campaign to destabilize the country by

systematically dismantling infrastructure. Agriculture and education were among the sectors most impacted. An estimated five million people were displaced by the conflict. When a power sharing agreement finally ushered in peace in 1992, Mozambique began the long process of forming a government and rebuilding the country. The account offers a historical perspective on institution building and background on the current challenges faced by AET in Mozambique.

Ge□mo, H. and Davis, K. E. 2015. Addressing human capital development in public agriculture extension in Southern Africa: Assessing Mozambique's experience. IFPRI Discussion Paper 1466. Washington, D.C.: International Food Policy Research Institute (IFPRI). Retrieved from <http://ebrary.ifpri.org/cdm/ref/collection/p15738coll2/id/129645>

This study reviews the human capital development (HCD) challenges in agricultural extension in in Mozambique as a case study for the Southern Africa region. Mozambique has been experiencing particular challenges in public extension HCD due to policy and administrative bureaucratic issues. While achievements were recorded in upgrading qualifications of field extension workers and integrating them into the government system as civil servants, there have been challenges to increase total staff numbers and to ensure adequate in-service training. Limiting factors in implementing HCD include limited resources allocated, weak emphasis on monitoring progress and trends in investments for in-service training and in assessing competency-related issues among extension staff, and lack of professional career paths for public extension workers. The study recommends conducting a comprehensive assessment of HCD, allocating greater resources to extension services and professionalizing extension as a career.

Ge□mo, H., and Rivera, W. M. (2001). *Mozambique's move towards a pluralistic national system of rural extension. Agricultural Research & Extension Network (AgREN)*. Network Paper No.110, January 2001. Retrieved from <http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/5114.pdf>

This paper examines the development of a pluralistic national system of rural extension in Mozambique. The authors outline the National Extension Master Plan, which in 2000 called for the advancement of an Integrated National Extension System (SISNE) based on public-private partnerships. The paper has two objectives: to examine the problems and challenges inherent in developing a pluralistic extension system; and to consider the role of the public sector and its "responsibilities as both a provider of public sector extension services and as a coordinator, overseer and regulator of private sector provision" (p. 3). The paper concludes with a discussion of how this shift towards a pluralistic national system can be generalized and promoted in other developing countries.

USAID (United States Agency for International Development). (n.d.). USAID Country Profile: Property Rights And Resource Governance, Mozambique. Retrieved from <http://www.usaidlandtenure.net/sites/default/files/country-profiles/full-reports/USAID_Land_Tenure_Mozambique_Profile.pdf>

This country profile provides an overview of property and resource law and practice in Mozambique. The 27-page profile covers land use, distribution, tenure, access rights and dispute settlement. Of most interest to the INGENAES landscape study is Intra-Household Rights To Land And Gender Differences (9-11). This section details the contradictions between

constitutional law, succession law and traditional practice. The authors observe that traditional practice often dictates governance of land and other assets, particularly in rural areas.

MISAU (*Ministério da Saúde* [Ministry of Health]), INE (Instituto Nacional de Estatística [National Institute of Statistics]) and ICF International. Demographic Health Survey 2011. Calverton, Maryland, USA: MISAU, INE and ICFI. Retrieved from <http://dhsprogram.com/pubs/pdf/FR266/FR266.pdf>

The Demographic and Health Surveys (DHS) are nationally-representative household surveys that provide data for a wide range of indicators in the areas of population, health, and nutrition. This information is collected for the purpose of policy formation, program planning, and monitoring and evaluation. The 2011 Mozambique report provides the most recent national data available. The findings, discussion and data collection instruments run 305 pages. The report is written in Portuguese.

van den Bergh-Collier, E. (2003). Gender Profile in Mozambique: Analysis and Action Plan for the New Strategy Period 2004–2010. Report for USAID/Mozambique. Maputo: USAID.

This Gender Profile was conducted in support of the USAID Country Strategy for 2004- 2010. Many of the findings are still relevant for current realities and programming. The profile identifies barriers to the ability of women to participate in key areas of development: the creation of rural wealth, the creation of non-agricultural sources of income, health, HIV/AIDS and democracy and governance. In order to contextualize these barriers, the profile explores women's relative access to resources and services and the cultural, sociological and traditional factors governing access. It characterizes intrahousehold dynamics, including the division of labor. The author documents attempts to reform national laws in order to improve access and provide greater protections for women. She cautions however that reform needs to happen at every level of governance and highlights the role of education – of both women and men – in reconciling law with practice.

WFP (World Food Programme), (2014). Country Overview: Mozambique. Retrieved from: <http://www.wfp.org/countries/mozambique/overview>

An overview of the state of food security in Mozambique. This brief identifies specific drivers of food insecurity such as low agricultural productivity, climatic shocks (drought, floods and cyclones) and high rates of HIV/AIDS. The page provides links to online food security and weather monitoring tools.

## Annex 5: Selected government policy and strategy publications

CAADP (Comprehensive African Agriculture Development Program). (2011). Compact for development of agriculture sector in mozambique in the context of CAADP. Retrieved from <http://www.nepad-caadp.net/sites/default/files/CAADP-Compacts/Mozambique-Signed-Compact.pdf>

INE (*Instituto Nacional de Estatística de Moçambique* [National Institute of Statistics]). (2007). Recenseamento Geral da População e Habitação, 2007. Retrieved from <http://www.ine.gov.mz/operacoes-estatisticas/censos/censo-2007/rgph-2007>

MINAG (*Ministério da Agricultura* [Ministry of Agriculture]). (2014). Ministry of Agriculture National Agriculture Investment Plan 2014–2018. Government of Mozambique: Maputo. Retrieved from <http://www.resakss.org/sites/default/files/pdfs/Final%20PNISA%20Revised%20Version_0.pdf>

MINAG (*Ministério da Agricultura* [Ministry of Agriculture]). (2011). *Plano Estratégico Para O Desenvolvimento do Sector Agrário* (PEDSA) [Strategic Plan For Agricultural Development] 2010-2019. Government of Mozambique: Maputo. Retrieved from <http://fsg.afre.msu.edu/mozambique/caadp/pedsa_final-english_22_nov.pdf>

MISAU (*Ministério de Saúde* [Ministry of Health]). (2014). *Programa de Reabilitação Nutricional* (PRN) [Nutritional Rehabilitation Program]. Government of Mozambique: Maputo, Mozambique. Information available at <http://www.fantaproject.org/countries/mozambique/nutrition-rehabilitation-program-prn>

MISAU (*Ministério de Saúde* [Ministry of Health]). (2011). *Plano de Acção Multissectorial de Redução da Desnutrição Crónica* (PAMRDC) [Multi-Sectoral Action Plan to Reduce Chronic Undernutrition]. Government of Mozambique: Maputo, Mozambique. Retrieved from <http://scalingupnutrition.org/wp-content/uploads/2013/02/Mozambique_PAMRDC_2011_2015.pdf>

SUN (Scaling Up Nutrition) Movement. (2015). Scaling Up Nutrition in Mozambique. Retrieved from <http://scalingupnutrition.org/sun-countries/mozambique>