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DEVELOPMENT OF FOOD-BASED DIETARY GUIDELINES AND STRENGTHENING OF EXTENSION SERVICES FOR IMPROVED FOOD AND NUTRITION SECURITY IN MOZAMBIQUE

April 2022

SDGs:



Country:

Mozambique

Project Code:

TCP/MOZ/3704

FAO Contribution:

USD 401 000

Duration:

20 December 2019 – 31 December 2021

Contact Info:

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Implementing Partners

Ministry of Agriculture and Food Security (MASA), Ministry of Health (MISAU).

Beneficiaries

The population of Mozambique.

Country Programming Framework (CPF) Outputs

CPF Priority area A: Improve selected value chains for food and nutrition security.



BACKGROUND

In Mozambique, the most important productive sector is the agriculture sector, based on smallholdings that are often farmed by female-headed households. According to the Census for Agriculture and Livestock 2009-2010, the country has 3.9 million smallholdings, averaging 1.5 ha and responsible for 95 percent of the country's agricultural production. The sector provides employment to 87 percent of the total population, more than 70 percent of whom live in rural areas, and contributes 25 percent to the gross domestic product.

Mozambique has a very high prevalence of chronic undernutrition, with a national average among children under five years of age of 43 percent, and with Nampula and Zambézia provinces reaching 51 and 46 percent (SETSAN Baseline, 2003), respectively. At the same time, the country is experiencing an increase in overweight and obesity, associated with an increased risk of non-communicable diseases that place an additional strain on the overburdened health system. The high rates of malnutrition are attributed to many factors, including inappropriate and inadequate food intake, illness caused by poor hygiene and sanitation and limited access to quality health services, and an evolving food environment (particularly in urban and peri-urban communities).

Recognizing the seriousness of the situation, the government requested FAO support to strengthen capacity and improve resources in order to promote the utilization of food-based approaches to improving food security, nutrition and health.

Specifically, FAO was requested to provide technical and financial support in two areas in need of capacity development as part of the larger FAO project GCP/MOZ/127/EC, "PROMOVE Agribiz - Improving rural competitiveness in Nampula and Zambézia Provinces, Mozambique". The two areas requiring support were: i) the strengthening of Farmer Field School (FFS) extension services; and ii) the creation of Food-Based Dietary Guidelines (FBDGs)¹.

IMPACT

Although not all project activities were completed during implementation, the project made a significant contribution to ensuring that PROMOVE Agribiz, an umbrella project in the fields of rural extension, agriculture and nutrition, is in a position to complete the project's actions and support the interests of the government. It is expected that the strengthening of national capacity on food-based approaches to improving the status of health and nutrition in Mozambique will be completed in 2022.

ACHIEVEMENT OF RESULTS

The project had three outputs. Output 1, which involved the building of capacity among FFS master trainers in nutrition-sensitive agricultural practices, diet, health and hygiene practices in Nampula and Zambézia provinces, was fully achieved. Under this output, 29 technicians were trained as FFS master trainers, building their capacity through a three-month course. Alongside the 29 technicians, the training involved ten institutions of extension and agricultural education, eight specialists and 140 smallholder farmers. The master trainers also developed and reviewed a total of 50 technical guidelines.

Output 2 concerned the development, dissemination and promotion of FBDGs to improve the nutritional status and health of the population and the level of national food security; FBDGs establish a basis for public food and nutrition, health and agricultural policies and nutrition education programmes, offering advice on foods, food groups and dietary patterns to provide the nutrients needed to promote overall health and prevent chronic diseases. This output was partially achieved. Finally, Output 3, regarding the strengthening of national capacity to effectively develop and communicate scientific food and nutrition information to the public by providing training to at least 15 professionals (representing relevant sectors such as health, agriculture, environment, education) and key stakeholders, was not achieved for reasons described below. The activities planned for Output 3 will be implemented under the PROMOVE Agribiz scope.

¹ Mozambican designation for FBDG's – Food Guide or *Guia Alimentar*

Despite the fact that not all project activities were fully implemented during implementation, all the preparatory activities, such as the formation of work teams, the engagement of key actors and the training of trained technicians to disseminate messages related to nutrition, were successfully carried out. Thanks to the activities of the project, PROMOVE Agribiz is in a position to complete the activities of the project and to strengthen national capacity on food-based approaches to improving health and nutrition in Mozambique.

IMPLEMENTATION OF WORK PLAN AND BUDGET

Project implementation was impeded by two factors: i) the COVID-19 outbreak, which limited the implementation of group meetings and field activities as a result of the restrictions imposed by the government and by FAO; and ii) the change of government administration in January 2020, especially at the directorate level of MASA, with new proposals, programmes and priorities that affected the normal implementation of project activities. Faced by this new scenario, the management team reviewed the project and its implementation strategy. On the one hand, the work modality was adapted to comply with the COVID-19 regulations in the conduct of group consensus activities and face-to-face training. On the other hand, new public and private relationships were created with the relevant actors, including universities and higher education institutions, to provide training in participatory extension approaches, including the FFS approach, in line with the expected project results. Despite these changes in strategy, the start of the project suffered delays. However, spending was in line with the activities implemented in the second year (2021). In addition, the project was complemented by the hiring of specialists from other FAO projects, such as PROMOVE Agribiz, which allowed the total or partial conclusion of activities.

FOLLOW-UP FOR GOVERNMENT ATTENTION

To ensure project sustainability, it is recommended that the government seek technical assistance to put into practice the development of educational material along the lines of the FDGBs, and the design of implementation, monitoring and evaluation programmes. The use of such guidelines to educate and empower mothers and caregivers, as well as schoolchildren, adolescents and adults, could be a powerful tool in combating both under- and overnutrition-related public health problems.

SUSTAINABILITY

1. Capacity development

The development of the FBDGs, led by MISAU and the Technical Secretariat for Food Security and Nutrition (SETSAN), has the support of several relevant stakeholders grouped in the dedicated task force. The involvement of these stakeholders, the names of which can be found under Activity 2.1 below, will help to ensure the sustainability of the project results. The various institutions involved in the creation of master trainers will also contribute to future sustainability.

2. Gender equality

The project ensured a gender-sensitive approach throughout its implementation. This is extremely relevant for Mozambique as women form 60 percent of the work force in agriculture and are involved mostly in subsistence farming. Gender-related inequalities were addressed by targeting women to be trained as master trainers and facilitating women's access to extension services, by identifying gender gaps and ways to tackle these within the training curriculum, and by addressing the unique nutritional needs of both biological sexes, with specific messaging to promote healthy diets and lifestyles for both. Of the 29 master training participants, nine were women.

3. Environmental sustainability

Sustainable, climate-smart agriculture practices were promoted by the project through the FFS curriculum. Agricultural intensification is expected to reduce the pressure for cultivation and land expansion into environmentally sensitive or marginal lands. The promotion of ecologically sound pest and disease control categorically included respect for environmental safeguards. Sustainable soil management through the conservation of organic residues, the use of green manure and composting was promoted to improve soil fertility in the long term. In addition, climate-resilient practices and technologies, including conservation agriculture, agroforestry, poli-cropping and water harvesting and storage, as well as post-harvest conservation techniques, were promoted to reduce the vulnerability of rural livelihoods.



4. Human Rights-based Approach (HRBA) – in particular Right to Food and Decent Work

The project addressed the right to food, the right to work, the right to decent conditions of work, the right to decent living conditions, and the right to equity for men and women. Its outcomes contribute to sustainable agriculture growth and incomes, enhancing food and nutrition security and rural competitiveness in Mozambique. This was achieved through community outreach, blending technical, social and financial skills in a mutually reinforcing and inclusive way, leaving no one behind.

5. Technological sustainability

At the end of the project, it is crucial that stakeholders put into practice the knowledge and experiences gained, and the lessons learned, during the period of financial and technical support provided. The implementation of programmes and projects that make use of the human capital formed under the project will ensure the application of the knowledge and products acquired in different national scenarios. The FBDGs are expected to be elevated to public policy and to be managed by the government in the short and medium term.

6. Economic sustainability

The project was part of PROMOVE Agribiz, an umbrella programme funded by the European Union and implemented in Nampula and Zambézia provinces. The PROMOVE Agribiz programme provides the first opportunity to complement and complete the activities that were not implemented in the project and to make use of the knowledge and experiences provided and of the lessons learned.

The products and services developed by the project are highly affordable. The FBDGs will be developed for use by the Mozambican population, as the main beneficiary of the project, and the facilitators will use the guidelines and manuals developed to implement the technical content in practice.



DOCUMENTS AND OUTREACH PRODUCTS

- ❑ **Fidalgo, L., Costa, S. & Mutemba, L.** 2021. *Situation analysis consolidate scientific evidence for FBDGs. Maputo, Mozambique.* Draft report. December 2021.
- ❑ **De Carvalho, I.** 2021. *Protocol for the data collection for the Food Catalogue and Traditional Recipes.* Maputo, Mozambique. December 2021.
- ❑ **De Carvalho, I.** 2021. *Descriptive report on the technical and laboratory capacity of Mozambican institutions to perform analysis of the nutrient composition of foods available in the country.* Maputo, Mozambique. December 2021.
- ❑ **Ochoa, M. & Zaqueu, F.** 2022. *Learning tools for Farmer Field School facilitators – promoting a sustainable and resilient family farming.* Draft. Maputo, Mozambique. March 2022.
- ❑ **FAO.** 2021. *Report of the training of master trainers on farmer field school (FFS) – compilation of synthesis of daily activities. Participants of training.* Gúruè, Mozambique. October 2021.



ACHIEVEMENT OF RESULTS - LOGICAL FRAMEWORK

Expected Impact	Improved food security, nutrition and health of the population of Mozambique		
Outcome	Strengthened national capacity on food-based approaches to improving health and nutrition statuses in Mozambique		
	Indicator	Strengthened human capacity to promote healthy diets.	
	Baseline	No guidelines for health and nutrition promotion available.	
	End Target	An FBDG to promote nutrition and health in policies and programmes available. Training of at least 45 individuals (30 FFS master trainers and 15 government staff) in food-based approaches.	
Comments and follow-up action to be taken	Output 1 of the project was completed as planned. Outputs 2 and 3 were not completed as they were intrinsically linked to the implementation of FAO project GCP/MOZ/127/EC. Delays caused by the COVID-19 pandemic and government administrative adjustments also contributed to the partial accomplishment of these outputs. The project was redesigned to focus on finalizing the situation analysis and consolidation of scientific evidence for the FBDGs.		
Output 1	Improved capacity among FFS Master Trainers on nutrition-sensitive agriculture (NSA), diet, health and hygiene practices in Nampula and Zambézia provinces		
	Indicators	Target	Achieved
	Number of new FFS Master Trainers trained on NSA and improved diet, health and hygiene practices.	30	Yes
Baseline	0		
Comments	A total of 29 technicians (97 percent of the expected target) received training as FFS master trainers, building capacity on NSA through a three-month course in the district of Gúruè, Zambézia province, from 11 July to 17 October 2021. Initially, 30 technicians had been identified to participate in the training. However, one of the technicians left the course on 1 August 2021 owing to personal constraints. A new technician was identified, but was unable to join the course as the length of administrative processes required exceeded the timeframe of the workshops.		
Activity 1.1	Identify technicians to be trained		
	Achieved	Yes	
	Comments	<p>The project, together with the Ministry of Agriculture and Rural Development, selected 30 technicians from the extension services: 20 technicians from the provinces of Nampula and Zambézia and ten technicians from the remaining provinces of Mozambique. However, the new public administration of the agricultural sector limited support to the project owing to new approaches promoted in its management. FAO, together with local partners, sought alternative solutions to involve extension technicians and professors at universities to be trained as master trainers.</p> <p>The training was attended by a total of 12 FAO district technicians, 11 technicians from partner institutions, such as Mozambique Institute of Agricultural Research, Institute of Almonds of Mozambique, the Provincial Services for Economic Activities (Nampula and Zambézia) and the Provincial Union of Peasants (Nampula and Zambézia), as well as seven professors from agricultural education institutions (Lúrio University, Eduardo Mondlane University, Zambeze University, Agrarian Institute of Mocuba and Agrarian Institute of Gúruè).</p>	
Activity 1.2	Training needs assessment		
	Achieved	Yes	
	Comments	<p>The implementation of this activity was affected by COVID-19 restrictions. Unable to organize meetings with focus groups, the person responsible for the implementation of this activity compiled various resources and validated the findings of the assessment with the respective specialists. The sources of information were:</p> <ul style="list-style-type: none"> – Minutes of meetings with the National Directorate of Assistance to Family Farming (DNAAF) on training needs. – Minutes of meeting to the design of the "Initial Training of Extensionists Module". – Results of knowledge evaluation of extension workers carried out during the FFS training of trainers. – Interviews with specialists of specific areas from FAO and universities, and with DNAAF. <p>Areas of knowledge and training approaches to be considered during training were identified and applied accordingly.</p>	

Activity 1.3	Conduct a Curriculum Development Workshop	
	Achieved	Yes
Activity 1.4	Comments	<p>Four workshops were conducted to develop the training curriculum. The respective objectives of each workshop were to:</p> <ul style="list-style-type: none"> – develop the training curriculum on poultry and livestock; – develop the training curriculum on integrated management of cashew (seedling production, establishment of plantation and management of established plantation), – develop the training curriculum on nutrition, food safety and hygiene, and – develop the training curriculum on resilient agriculture. <p>The products obtained during the workshops were integrated into a common curriculum and developed during the master training.</p>
	Achieved	Yes
Activity 1.5	Comments	<p>A total of 50 technical guidelines was developed and reviewed by FFS master trainers. The topics covered seed, soil conservation and management of soil fertility, climate change, integrated pest management, poultry and livestock, agribusiness, harvest, post-harvest and food conservation, nutrition, food safety and hygiene, and gender. Nutrition, food safety and hygiene were part of six technical modules to address the awareness, knowledge and adoption of appropriate practices in order to improve nutrition among women, children and families through the utilization and consumption of high-nutrient value crops and animal-sourced food, and through improved health and hygiene practices.</p>
	Achieved	Yes
Activity 1.5	Train extension workers from provincial extension Departments as FFS Master Trainers	
	Comments	<p>The training was attended by 29 extension workers and professors from the agricultural extension area. The training was split into two phases and lasted approximately 90 days. Phase I, of six weeks, took place between 12 July and 20 August 2021. After this period, there was a two-week break with the participants returning to the workplace. Phase II, of six weeks, took place between 6 September and 17 October 2021. The training was carried out at the Leão Dehon Multipurpose Centre, in Gúruè district, Zambézia province.</p> <p>The training modules were delivered each week under the guidance of an FAO master facilitator and with the collaboration of experts from each thematic area. Fields of experimentation with common bean, cowpea and vegetables, as well as poultry, were used to develop the practical component. The fields were visited by smallholder farmers from Gúruè district through a field day and a fair as a technology dissemination strategy.</p> <p>The training involved ten institutions of extension and agricultural education, eight specialists, 29 technicians and 140 smallholder farmers.</p>
	Achieved	Yes

Output 2	Development, dissemination and promotion of Food-Based Dietary Guidelines to improve the nutritional status and health of the population and the level of food security in Mozambique		
	Indicators	Target	Achieved
	FBDGs prepared, finalized and launched.	FBDGs available for promotion of healthy diets.	Partially
Baseline	No guidelines for health and nutrition promotion available.		
Comments	Owing to delays in the start of project activities caused by the COVID-19 pandemic, coupled with adjustments in government administration, the project was redesigned and targeted the completion of two of the ten steps involved in the process of developing FBDGs. The initial two steps of the FBDGs were therefore completed during the implementation of this project. The other eight steps will be completed in 2022 under project GCP/MOZ/127/EC.		
Activity 2.1	Establish an interdisciplinary working group to develop FBDGs		
	Achieved	Yes	
	Comments	<p>The project created a task force for the development of the FBDGs in June 2021, chaired by MISAU and SETSAN. Terms of Reference (ToRs) for the task force, including work methodology and a composition proposal, were discussed in August 2021. The task force, which is included in the Government Cooperative Programme framework with Brazil, comprises representatives from governmental and non-governmental institutions, as well as cooperation partners. The following institutions are part of the group:</p> <ul style="list-style-type: none"> – MISAU; Planning and Cooperation Directorate and National Directorate of Public Health/ Department of Nutrition. – SETSAN. – Ministry of Education and Human Development/Directorate of School Health and Nutrition. – Ministry of Gender, Children and Social Action. – National Health Institute (INS). – Institute of Health Sciences. – Lúrio University. – Food Security and Nutrition Association. – Brazil (Ministry of Health/General Coordination of Food and Nutrition; Federal Institute of Southern Minas; and Fiocruz). – FAO. – United Nations Children's Fund. – World Food Programme. – World Health Organization. – United States Agency for International Development. – Ariel Glaser Foundation. <p>The ToRs for the task force include responsibility to oversee the preparation of the annual work plan, to support the organization of the technical teams involved in the implementation of activities, and to support the development and approval of the ToRs to hire consultants for the various steps of the development of the FBDGs.</p> <p>The project originally planned to develop FBDGs for the general population, but the task force agreed to develop targeted guidelines for different age groups: i) under five; ii) pregnant and lactate women; and iii) the general population. The task force also proposed the development of a food catalogue and collection of traditional recipes, as an additional tool to promote adequate nutrition, prevent chronic diseases and improve the food and nutritional health profile of the Mozambican population. The catalogue aims at promoting the knowledge, registration and appreciation of regional available foods that represent the diversity and richness of Mozambican food culture. Associated with the food guides under construction, the food catalogue and traditional recipes are important complementary instruments for the nutritional advice of the population, as they will provide relevant information about the nutritional, culinary and cultural value of food.</p> <p>Owing to the geographical dispersion of members all task force meetings were virtual. The task force was nonetheless faced by challenges as a result of the COVID-19 situation in the country, with scheduled meetings being changed or postponed because of sick coordinators.</p>	

Activity 2.2	Conduct a situation analysis and consolidate scientific evidence for FBDGs	
	Achieved	Yes
	Comments	Under the project, the review of the situational analysis and consolidation of scientific evidence for the development of FBDGs was completed. The report incorporates information on the food consumption, dietary patterns and nutrient intake in Mozambique, providing information by geographic region and by age group. Three consultants were hired to conduct a desk review to produce scientific evidence for the FBDGs. The review revealed the level of existing information and suggested studies that could be conducted to complete the information available. One consultant was hired to complete the protocol for data collection for the food catalogue and traditional recipes. The protocol was expected to be validated in a workshop conducted in March 2022, with support from project GCP/MOZ/127/EC.
Activity 2.3	Conduct field-level information collection	
	Achieved	No
	Comments	This activity was not completed because of changes to the work plan.
Activity 2.4	Draft evidence document	
	Achieved	Yes
	Comments	A draft of the scientific evidence for the development of FBDGs was completed. The document incorporates information of food consumption, dietary patterns and nutrient intake in Mozambique. The document was presented to a small group (MISAU, SETSAN, INS and FAO) for their comments before being submitted to the entire task force for validation. A validation workshop was planned to be conducted under project GCP/MOZ/127/EC in March 2022. The findings of the document revealed the extent of existing information and suggested studies that could be used to complete the country's situational analysis.
Activity 2.5	Conduct a validation workshop on the evidence document	
	Achieved	No
	Comments	The validation workshop was planned for March 2022 under project GCP/MOZ/127/EC.
Activity 2.6	Draft dietary recommendations	
	Achieved	No
	Comments	This activity was planned for March 2022, during the validation workshop under project GCP/MOZ/127/EC.
Activity 2.7	Pre-test the FBDGs, messages and visual illustrations and revise accordingly	
	Achieved	No
	Comments	This activity was planned for March 2022 under project GCP/MOZ/127/EC.
Activity 2.8	Develop diet modelling for FBDGs	
	Achieved	No
	Comments	The activity is to be completed under project GCP/MOZ/127/EC.
Activity 2.9	Develop food guides, messages and graphics	
	Achieved	No
	Comments	The activity is to be completed under project GCP/MOZ/127/EC.
Activity 2.10	Validation of dietary recommendations and FBDGs	
	Achieved	No
	Comments	The activity is to be completed under project GCP/MOZ/127/EC.
Activity 2.11	Conduct field testing on food guide, messages, graphics and Information, Education and Communication (IEC) materials	
	Achieved	No
	Comments	The activity is to be completed under project GCP/MOZ/127/EC.
Activity 2.12	Design a promotion strategy featuring the food guide, messages, graphics and IEC materials	
	Achieved	No
	Comments	The activity is to be completed under FAO project GCP/MOZ/127/EC.
Activity 2.13	Publish the food guide, messages, graphics and IEC materials and roll out awareness campaign	
	Achieved	No
	Comments	The activity is to be completed under project GCP/MOZ/127/EC.

Output 3	Strengthened capacity of Mozambique to effectively develop and communicate scientific food and nutrition information to the general public with at least 15 professionals (representing relevant sectors such as health, agriculture, environment, education) and key stakeholders trained		
	Indicators	Target	Achieved
	Number of relevant government employees trained in application of FBDGs.	15	No
Baseline	2		
Comments	The project was unable to achieve this output as its accomplishment depended on the accomplishment of the previous output (Output 2). The activities mentioned below will therefore be completed within the framework of project GCP/MOZ/127/EC.		
Activity 3.1	Conduct capacity-building sessions at key steps in the development of FBDGs		
	Achieved	Partially	
	Comments	Capacity-building of the task force was begun under the project. The task force members were invited to the Southern African Development Community (SADC) Regional Dietary Guidelines: Country problem identification workshops, which took place in October 2021. During the SADC Regional meeting, concepts and steps for the development of the FBDGs were shared and task force members participated in the identification of nutrition priorities in the country. In addition, during the FBDG task force meeting, which took place in July, the FAO Lead Technical Officer of the project was invited and supported with discussion of the steps for the FBDG draft.	
Activity 3.2	Conduct on the job training and mentoring		
	Achieved	No	
	Comments	The activity is to be completed under project GCP/MOZ/127/EC.	
Activity 3.3	Develop educational materials for field workers		
	Achieved	No	
	Comments	The activity is to be completed under project GCP/MOZ/127/EC.	
Activity 3.4	Contribute to provincial workshops in Nampula and Zambézia to share lessons learned and good practices		
	Achieved	No	
	Comments	The activity is to be completed under project GCP/MOZ/127/EC.	

Partnerships and Outreach

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