



## Programme Document Proposal

*Programme  
title*

**Sustainable food systems in Malawi (FoodMa)**

*Programme  
Goal*

Contribute towards sustainable food systems in Malawi

*Prepared and  
Submitted by*

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## Acronym

ADMARC	Agricultural Development and Marketing Corporation
Agribiz	LUANAR Agricultural Incubation and Innovation Hub
AIP	Affordable Inputs Programme
ARDEP	Agricultural Research and Development Programme
BCA	Bunda College of Agriculture
BCDP	Bunda Capacity Development Programme
CAADP	Comprehensive Africa Agriculture Development Programme
CABMACC	Capacity Building for Managing Climate Change in Malawi
CGIAR	Consultative Group for International Agricultural Research
CSO	Civil Society Organization
CYMITT	The International Maize and Wheat Improvement Centre
DAESS	District Agricultural Extension Services System
DARS	Department of Agricultural Research Services
EPAs	Extension Planning Areas
FCDA	Foreign Currency Denominated Account
FEWSNET	Famine Early Warning Systems Network
FISP	Farm Input Subsidy Program
FNS	Food Nutrition and Security
FoodMa	Sustainable Food Systems in Malawi Programme
GoM	Government of Malawi
GHG	Green House Gas
HIS	Integrated Household Survey
HLPE	High Level Panel of Experts on Food Security and Nutrition
HRM	Human Resources Management
ICT	Information, Communication and Technology
KAP	Knowledge, attitude, and practice
LGAs	Local Government Authorities
LIBIC	Livestock Innovation and Business Incubation Centre
LUANAR	Lilongwe University of Agriculture and Natural Resources
MGDS	Malawi Growth Development Strategy III
MOUs	Memorandum of Understandings
MSc.	Master of Science
MTR	Midterm Review
MwAPATA	Malawi Agricultural Policy Advancement and Transformation Agenda
NAP	National Agricultural Policy
NAIP	National Agricultural Investment Plan
NFRA	National Food Reserve Agency
NGO	Non-Governmental Organizations
NMBU	Norwegian University of Life Sciences
NORAD	Norwegian Agency for Development Cooperation
NORHED	Norwegian Programme for Capacity Development in Higher Education and Research for Development
NPC	National Planning Commission
NRC	Natural Resources College
NUFU	Norwegian Council for Higher Education's Programme for Development Research and Education

OFSP	Orange-Fleshed Sweet Potatoes
PAC	Programme Advisory Committee
PhD	Doctor of Philosophy
PPP	Public Private Partnership
QPM	Quality Protein Maize
RCT	Randomised Control Trial
RNE	Royal Norwegian Embassy
SAI	Sustainable Agriculture Intensification
SDGs	Sustainable Development Goals
SWG	Sector Working Group
ToRs	Terms of Reference
TWG	Technical Working Group
WP	Work Packages

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## FoodMa in brief

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### Sustainable food systems in Malawi (FoodMa)

**Goal:** Contribute towards resilient and Sustainable Food Systems for better income and improved food and nutrition security in Malawi.

**Objectives:**

The Programme objectives are presented in four Work Packages (WP) as follows:

- WP1: Strengthen food system governance and institutions;
- WP2: Enhance agricultural biodiversity, farming systems and seed security;
- WP3: Enhance climate smart agriculture through sustainable agriculture intensification; and
- WP4: Strengthen the capacity of LUANAR to respond to issues affecting the Malawi food system.

**Impact Pathways:** Activities under the four WPs will be implemented following a three-tier impact pathways viz:

- Collaborative research;
- Capacity development and education; and
- Dissemination and outreach activities including a partnership for impact.

**Theory of change:** Using the aforesaid impact pathways, FoodMa will aim towards attaining resilient and Sustainable Food Systems for better income and improved food and nutrition security in Malawi. FoodMa will conduct research, capacity building and education programmes and dissemination of prevailing and upcoming research products using effective approaches. This approach will be pursued to inform the transformation of the agriculture food systems in order to bring about sustainable impacts on nutrition and incomes of rural farmers in the FoodMa/TRANSFORM implementation areas.

On **research**, FoodMa will champion collaboration with end-users, Government and CGAIR institutions in defining the food systems research agenda for Malawi, developing action plans to address the set agenda, promoting co-implementation and on-going lesson sharing. In this pillar, FoodMa intends to support fifteen (15) partial scholarships targeting MSc. students specifically on the research elements. Furthermore, to deal with emerging issues, four (4) commissioned research activities or grants are planned. These will be conducted to provide answers to emerging issues on Malawi's food systems. A unique strategy which FoodMa has put in place is the engagement of work package coordinators who will be expected to spearhead eight (8) research aspects within their work packages.

**For dissemination and outreach,** FoodMa will strengthen extension and research linkages. This will be pursued to avail existing technologies and approaches to end-users. The technologies and innovations will be those from previous investments in ARDEP, CABMACC, DARS, CGIAR and NGOs including those participating in the TRANSFORM Programme. This will also include emerging research products and innovations through FoodMa. To achieve this, FoodMa will collaborate with the existing innovation platforms such as Sector Working Groups, Technical Working Groups, District Agriculture Extension Systems and Research into Use Platforms. The research outputs will be disseminated through meetings, dissemination conferences, book publication and policy dialogue.

On **capacity building and development,** FoodMa will ensure that high quality and need based education and training programmes are strengthened and delivered to LUANAR staff, extension workers, and targeted communities. These trainings will be at graduate, undergraduate, vocational and community-based level. Targeted LUANAR graduates are change agents at policy and community level. Hence an investment towards a skill and knowledge-based food system for Malawi given the challenging and ever-changing environment in which agriculture is implemented. In order to realize these objectives, FoodMa will also support four (4) full scholarships for PhD students who will be selected amongst LUANAR staff to be trained at NMBU. The selection criteria will among other things promote gender and diversity. The programme will also support one full MSc training to be taken at LUANAR. The other activities planned under the education pillar include three (3) short courses, curricular review and two (2) exchange visits to NMBU.

### **Target Groups**

The target groups for FoodMa include: NMBU and LUANAR staff and students, NGOs and CSOs, famers (smallholder & commercial) and policy makers. Furthermore, FoodMa might not reach all 180 000 households planned under TRANSFORM in the 5 districts. But it is anticipated that due to the implementation arrangements with local NGOs and CSOs, the capacity building and research outreach will be transferred most households in the impact site. FoodMa has the capacity to reach other beneficiaries who are outside this bracket. For instance, the students targeted for training under FoodMa have the potential of a multiplier effect to different stakeholders that include farmers and households outside the five (5) TRANSFORM districts.

## Preamble

Malawi is an agro-based economy, with around 80% of the population living in rural areas. Malawians, especially those in rural areas, continue to experience and struggle with persistent poverty, food and nutrition insecurity exacerbated by lack of off-farm employment opportunities and environmental degradation in light of climate change. Sachs *et al.* (2017) reported that Malawi ranks 147<sup>th</sup> out of 157 countries in progress towards meeting Sustainable Development Goals (SDGs) with undernutrition in women and children reported as both health and development hazards.

In order to deal with these bottlenecks, the “Sustainable Food Systems in Malawi (FoodMa) Programme” is proposed based upon a holistic system thinking approach that emphasizes ‘*action to impact*’ research, education, dissemination and outreach. In this programme, *Sustainable food systems include aspects of – and activities related to – food production, processing and distribution, sale and consumption, as well as their socio-economic and environmental impact* (HLPE 2017). FoodMa will integrate innovative participatory approaches with evidence-based interventions to build and strengthen the economic, social and environmental foundation that will ensure food and nutrition security complemented with taking agriculture as a livelihood and business through value-adding within selected value chains. In order to achieve these objectives, the role of universities through research, education and dissemination of good practice needs to be reinforced.

One such public university in Malawi is the Lilongwe University of Agriculture and Natural Resources (LUANAR), whose mission is to shape the future Malawi’s agriculture and natural resources through transformative education, innovative research and responsive outreach. Through its societal centric strategic plan, LUANAR aims to: 1) Transform undergraduate, graduate and short term trainings with a firm commitment of developing knowledgeable, skilled, and engaged graduates prepared for an ever-changing global environment; 2) achieve high-impact innovative research that address national and global challenges to improve health, environmental and economic sustainable development and 3) develop partnerships with relevant government and non-governmental institutions (including DARS, CGIARs) and for the co-generation, transfer, adoption and application of technologies to enhance sustainable food systems (LUANAR, 2019). FoodMa therefore provides an excellent platform for the much-needed transformative education programs, collaborative innovative research and dissemination for the realisation of sustainable food systems in Malawi.

Such linkages among actors have the potential to contribute significantly towards sustainable food systems; i.e. improved food and nutrition security, better health, increased income, more gender equality, enhanced climate change resilience and environmental sustainability to climate and other related shocks. The following have been identified as impact pathways for FoodMa:

- Contributing to the LUANAR's vision: "to be a world class University" with emphasis on contributing to the embodied aims in the above statements.
- **Dissemination and outreach activities**, including partnership for impact. Organize scientific conferences and workshops as a joint outcome from the FoodMa and TRANSFORM Programmes.
- **Capacity development and education** that contributes towards quality education of "change agents" that can go out and make a difference in society as well as PhD for possible future academic staff at LUANAR.
- **Collaborative research** contributing towards knowledge-based policy formulations and action for improvements at both national and local levels, e.g. regarding men and women farmers' livelihoods.

Furthermore, FoodMa recognizes the accumulation of human and institutional capacity that has occurred throughout the previous Norwegian-supported programmes to LUANAR. Examples are the Norwegian Council for Higher Education's Programme for Development Research and Education (NUFU), Bunda Capacity Development Programme (BCDP), Agricultural Research and Development Programme (ARDEP), the Norwegian Programme for Capacity Development in Higher Education and Research for Development (NORHED) and Capacity Building for Managing Climate Change in Malawi (CABMACC). FoodMa, therefore, seeks to build upon and buttress lessons learned, new technologies developed and growing capabilities of the target communities, stakeholders and institutions in Malawi. To ensure national relevance, FoodMa is aligned with relevant policy frameworks and strategies. At the global level, these include the Sustainable Development Goals (SDGs), at regional level the Agenda 2063, the Malabo declaration and the Malawi Growth Development Strategy III (MGDS), the National Agricultural Policy (NAP), and the National Agricultural Investment Plan (NAIP), Malawi National Multi-sector Nutrition Policy, National Environmental Policy, the Malawi National Gender Policy and the Seed Policy that all emphasize the importance of increasing production and income for smallholder farmers, reducing poverty and food insecurity, improving nutrition and the urgent need for climate change adaptation. For example, the MGDS III's theme aims to improve productivity, turn the country into a competitive nation and develop resilience to shocks and hazards (Malawi Government, 2017). Besides, FoodMa is also built around and responds to the Norwegian Government's Action Plan on Sustainable Food Systems.



## **Objective**

The objective of the FoodMa is to strengthen local food systems in selected Extension Planning Areas (EPAs) in five of Malawi's districts and to demonstrate a sustainable improvement of food and nutrition security, resilience to climate change, and income among agriculture-dependent rural households. By strengthening LUANAR, FoodMa will build skills and competencies and generate research evidence necessary to achieving, wider agriculture intensification, effective policies, and supportive institutions that will create a conducive environment for sustainable food systems amongst small-scale farmers.

## **Implementation Approach**

LUANAR will implement the FoodMa Programme in collaboration with the Norwegian University of Life Sciences (NMBU). The two Universities have jointly implemented several research and capacity building programmes in the past. These include; Bunda Capacity Development Programme (2002-2012), Agricultural Research and Development Programme (2005-2012), and Capacity Building for Managing Climate Change in Malawi (2013-2020). FoodMa will also collaborate with TRANSFORM consortium partners being funded by RNE. FoodMa will utilize the following implementation strategies that are linked to its three pillars:

## **Research**

LUANAR and NMBU staff will conduct participatory action research that is demand driven by the primary beneficiaries (smallholder farmers) in collaboration with other implementers in the TRANSFORM programme. It is envisaged that research outcomes will trickle down to all TRANSFORM implementation sites. Under this pillar, PhD and MSc students will also conduct research in other identified themes within the three work packages. The impact of all research under FoodMa shall not end at the field level but shall be streamlined to inform transformational thinking within the agricultural sector.

## **Education**

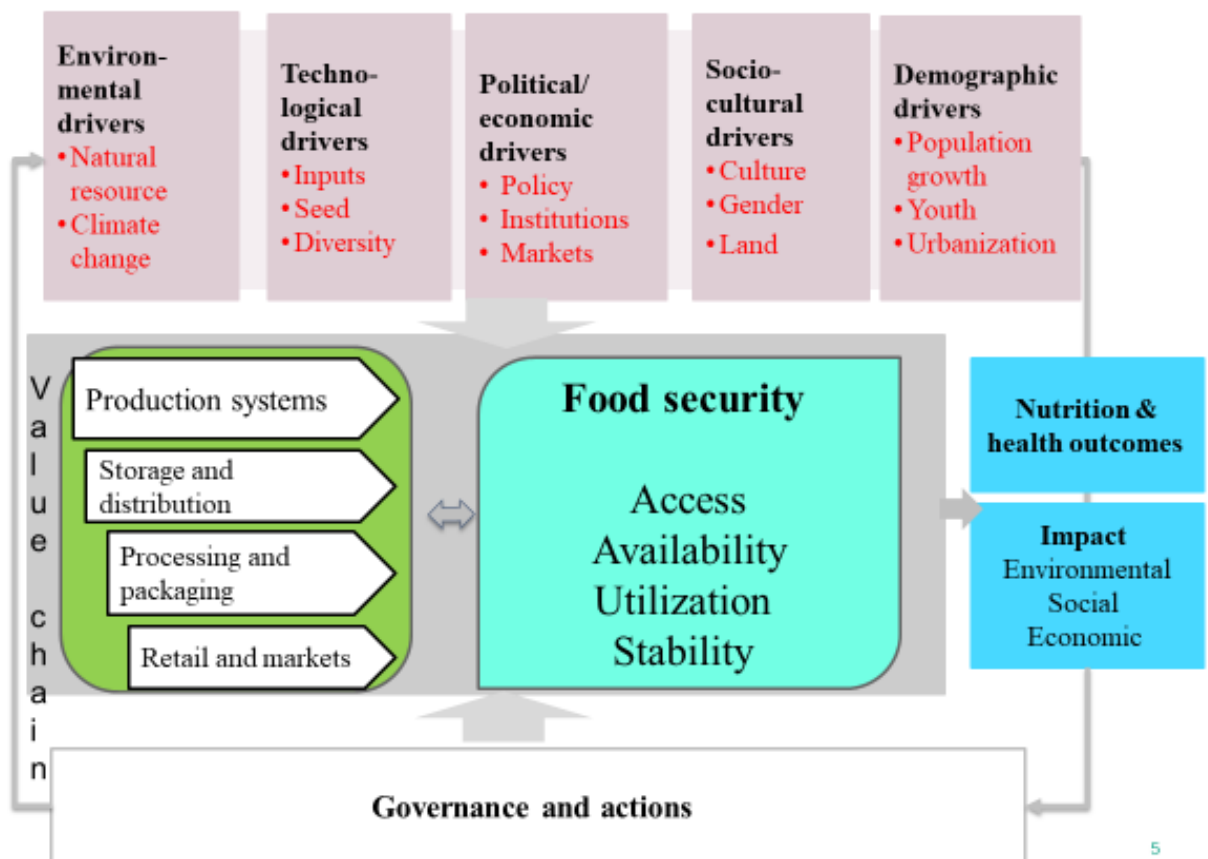
The outcomes from research pillar shall be used as a basis to review LUANAR and other education institutions' teaching curricula. The result will be relevance of the syllabi in response to issues on the ground. Not only will the teaching be limited to the University but will also be extended to include development of short courses targeting other LUANAR staff, students, policy makers, NGOs and farmers amongst others.

## **Dissemination**

The training will enable spill over effects to those that did not attend the trainings. Farmer field schools and lead farmer approach will be adopted to reach out to other farmers. The use of different media platforms will be explored such as social media, electronic and paper. In order to be visible, LUANAR's publicity and marketing departments will be fully utilized in the implementation of the project.

# 1 Conceptual Framework of Food Systems

There is need to understand the underlying food systems framework that is anchoring FoodMa. The food system is a complex web of activities involving the production, processing, transportation, and consumption. FoodMa will explore the critical elements of the proposed food system. Figure 1 provides a framework for the thematic areas and work packages (WPs) for FoodMa. The figure illustrates how different drivers such as environmental, technological, and socio-economic factors are interrelated and how they together form a holistic and interdisciplinary way of analysing the food systems with the goal of contributing towards nutrition centric agriculture intensification and health outcomes as well as environmental, economic and social sustainability.



**Figure 1.** Food systems in Malawi (adapted from HLPE 2017)

Issues concerning the food system include the governance and economics of food production, its sustainability, the degree to which food is wasted in post-harvest loss, how food production affects the natural environment and the impact of diet on individual and population health (FAO, 2017). For instance, in Malawi, maize is an essential staple food and the foundation of the food system (White, 2019). The food system is fragile, characterized by a high degree of uncertainty and volatility stemming from its vulnerability to the variations of the weather and other

agroecological pressures, such as fall armyworms and of recently the COVID-19. In 2017, about a third of the population (6.7 million) required food assistance (FEWSNET, 2017). Consequently, improvements in developmental outcomes, such as poverty have been sluggish. National Statistical Office (NSO, 2017) estimates that over half of the population (50.8%) was poor while about a quarter (25%) were living under extreme poverty conditions. Nutrition-wise, undernourishment in 2015 stood at 20.7%, and declines have been slow in recent years. Poor infrastructure, uneven and deteriorating power access, gender inequality, small land size, expensive fuel, and poverty combined to exacerbate the volatility and precarity of the system (White, 2019; Haug and Westengen 2020).

In response to these challenges related to Malawi's food systems, for several decades, the Government of Malawi and its Development Partners have undertaken several measures to strengthen and transform the food system. Efforts include increased funding to the agricultural sector in line with the commitment under Comprehensive Africa Agriculture Development Programme (CAADP), scaling-up nutrition-sensitive agriculture interventions, irrigation development, reduction in price volatility, improving food marketing and increased use of modern inputs, which includes hybrid 'improved' seeds, chemical pesticides, fertilizers, and insecticides, establishing floor prices for maize as a staple food crop, maize export ban and reforming the Farm Input Subsidy Program (FISP) currently renamed Affordable Input Program (AIP). However, despite these significant strides to improve agriculture and food systems, there is a consensus that there is need for resilient and sustainable agricultural and food systems in light of climate change and other challenges.

## 2 Situation Analysis

Agriculture is the principal source of food and income for the majority of Malawians. Agriculture generated approximately 28% of GDP, 65% of employment, and 63% of export earnings in 2015, and is even more important if forward and backward linkages are factored in. Considering the linkages of agricultural production and processing with input supply, trade and transport service, the broader Agri-food system contributes 44% to GDP and generates 74% of employment (GoM, 2018). Consequently, the sector's underperformance and susceptibility to shocks have caused widespread food insecurity and poverty. Current estimates show that over half [50.7%] of the population is poor and a quarter [25%] is ultra-poor i.e. are unable to meet basic needs for subsistence including food (GoM, 2017). The challenge for agriculture is to pursue targeted investments to improve productivity and resilience to contribute to reducing poverty and Malnutrition.

Several issues underlie the poor performance of the sector including the following:

**The maize centric approach to agriculture development.** Maize accounts for almost 50% of the entire planted area and has also been at the Centre of agricultural policies, research, outreach, and public expenditures for decades (GoM, 2020). For instance, out of the K354.8 billion allocated to the agriculture sector in the 2020/21 financial year K160.2 billion [45.1%] is towards the supply of cheap maize inputs under the Affordable Input Programme (AIP). Although such programmes raise productivity as was the case with Farm Input Support Programme (FISP) where maize production increased by 145% in the 2019/20 growing season from 1.7 million Metric tons in 2005. The dominance of maize does not leave room for research and extension activities for agricultural diversification. The farming systems for alternate crops remain traditional characterized low-quality planting materials and poor agronomic practices. Besides, the maize-centred approach to food security has contributed to a limited dietary diversity at household and national levels such that only 25% of the population are able to meet the dietary diversity.

With support from DPs, the government has prepared the National Agriculture Investment Plan (NAIP). This is a framework for guiding investment in Malawi's agricultural sector over the next five years (2018-2022). Its policy foundations are mainly the Malawi Growth and Development Strategy (MGDS), the National Agricultural Policy (NAP), the CAADP Compact and the Malabo Declaration. In terms of Food and Nutrition Security (FNS), the NAIP targets the more comprehensive objective of FNS. Food insecurity and malnutrition has three dimensions: food access, care practices and health sanitation and environment. While FNS requires interventions from different sectors - health, water and sanitation, and education – targeted investments in agriculture have a critical role to play in addressing stunting, micronutrient deficiencies and other forms of malnutrition. Micronutrient deficiencies are closely associated with lack of dietary diversity. Agriculture-based interventions can also make important contributions to reducing stunting by increasing the availability of diverse and healthy foods in urban and rural areas; improving access through lower food prices and increased incomes, and by decreasing the gender gap in agriculture. The proposed programme would seek to support some of the elements of the NAIP's objective 3: *Improved Food and*

*Nutrition Security* in form of demand driven research, extension, and capacity building.

**Vulnerability to shocks.** Agricultural growth has been highly volatile over the past five years due to reliance on rain fed agriculture. Periods of growth such as 2011, 2013 and 2014, are often followed by lower or negative growth rates, driven largely by climatic conditions (GoM, 2018). It is estimated that the country loses up to US\$150 million per year due to systematic risks to agricultural sector (World Bank 2015). Consequently, rural smallholder farmers are trapped in a vicious cycle of poverty or move and then fall back depending on the year (GoM, 2017). To reduce the losses, the world bank study recommended concentrating on risk mitigation measures. These include: increased use of irrigation; research into risk tolerant crop varieties, improved post-harvest handling to reduce losses, and the design of institutional risk management mechanisms; and extension efforts on risk mitigation strategies for farmers in order to reduce the need for coping measures and to promote the resilience capacity of farmers.

Under the Policy Priority Area 6: Agricultural Risk Management the National Agricultural Policy (NAP) draws from the study and spells out measures to address the vulnerability associated with climate, pests and macroeconomic changes. These include; establishing a diversified portfolio of agricultural production risk management instruments and technologies, supporting improvements in the quality of market information systems for management of risks associated with agricultural markets, supporting a regional approach to ensuring food and nutrition security, and Promote integrated management and control of pests and diseases. The NAIP echoes the need to reduce susceptibility to shocks under objective 1: Broad Based and Resilient Agricultural Growth. It realizes that agricultural growth has to come mainly from productivity gains rather than through an expansion of the area under production, combined with interventions to improve resilience by preparing for and managing shocks. The proposed programme will ensure that food production systems are more resilient through promotion of climate change adaptive strategies and ensuring that the country has the capacity to rapidly assess pest and disease outbreaks for prompt action.

**Gender inequality with agriculture** – In general, Malawi's female farmers are less productive (by 28 percent on average) compared to their male counterparts. This is so because women frequently have unequal access to key agricultural inputs such as land, labour, knowledge, fertiliser, improved seeds, and mechanization. However, according to "The Cost of the Gender Gap in Agriculture" Malawi stands to gain if women are more involved in the entire agricultural value chain. The report estimates that closing the gender gap would result in a 7.3% increase in crop production, USD 100 million increase in GDP and lift 238,000 people out of poverty. The NAIP outlines measures to close the gender gap in agriculture that include, support youth employment and entrepreneurship, increase the access of remote areas to infrastructure, markets and support services, and to support labour-constrained households such as those affected by HIV-AIDS. The NAIP also incorporates strategies and interventions tailored to larger scale commercial farmers and agribusinesses. The proposed programme will contribute towards bringing the gender gap by having deliberate intervention aimed at promoting equity amongst gender groups

**Lack of Evidence for Policy making** – Government objectives in the food and agricultural sectors are outlined in the National Agricultural Policy (2016-2020). The policy goal is to achieve sustainable agricultural transformation that will result in significant growth of the agricultural sector, expanding incomes for farm households, improved food and nutrition security for all Malawians, and increased agricultural exports. Apart from this a number of sub sector policies and strategies exist in livestock, irrigation, fisheries and crops.

**Institutions and Capacity Building** - Government of Malawi (GoM) and development partners have overtime populated mechanisms of coordinating actions and efforts of actors in agriculture and sectors which boarder on agriculture. At the national level there are Sector Working Groups (SWGs) and Technical Working Groups (TWGs) while at district and local level there are platforms provided for such as the District Agricultural Extension Services Systems (DAESS). These platforms which operate on the rationality of innovation systems were created to drive the coordination, lesson sharing, learning, joint planning and execution of the plans affecting sectors and agriculture at national, district and local level. Specifically, for agriculture, the SWGs, TWGs and DAESS presents opportunities for policy makers, service providers and service users to interface, generate demands for innovations and technologies, co-generate training needs and develop financing mechanisms for implementing the identified interventions. Thus, the structures provide opportunities for collaborative research, effective capacity building and education for agricultural professionals and farmers; and could be used as dissemination platforms. Whilst these structures are in place at national, district and local level their operations are ineffective. Education and training institutions are usually inactively working through the structures.

### **Rationale for LUANAR's involvement**

Previous Norwegian and GoM support to Bunda College of Agriculture (BCA) has uplifted the institutions' potential to generate innovative minds with practical, interdisciplinary, and entrepreneurial skills and relevant technologies for the food system policy and process, which remain untapped. The support has put in place the needed scientific laboratories, trained the scientist and supported curriculum development. This support among other efforts catapulted the evolvement of BCA into a fully-fledged university. In the evolvement of LUANAR, Natural Resources College (NRC), which specialises in training front-line extension workers, became part of the university which BCA evolved into. Presently these institutions operations are characterised with limited collaborative engagement with local, regional, and international key stakeholders resulting into misaligned curriculum, mis-aligned research agenda, limited research funding, limited innovation production, outreach, and policy advocacy.

The mentioned issues put to the fore the university's role to contribute to a more food and nutrition secure Malawi using a food system approach whilst reflecting on its mandates which are *research, training, outreach, and consultancy*. Presently the key gap areas requiring the university intervention for a transformative food system in Malawi have three spikes, namely: (i) biodiversity conservation and seed security (ii) sustainable agricultural intensification and climate change, and (iii) food system governance and institutions. Three envisaged impact pathways for the university to address these gap areas are (i) need based collaborative research with farmers,

farmer organisations, NGOs, the national agricultural research services, private sector agro-companies and CGIARs; (ii) continuous and need based capacity building of scientific infrastructure, university staff, students, extension professionals and farmer trainers (lead farmers) through long-term and short term trainings; and (iii) dissemination of tested technologies and innovations through the innovation platforms such as DAESS, SWGs, TWGs, young scientist network and Food Systems Hub.

Progressing out of Malawi's development problems of malnutrition, income poverty and food insecurity requires transformative drive, where comprehensive and integrated planning and policymaking is needed. This will necessitate a shift from business-as-usual disjointed sectoral policymaking approaches that are reactive to immediate problems, towards the adapting and adoption of a holistic and forward-looking 'food system approach. This would consider all activities and actors involved in food production, processing, transportation, and consumption of food; the general economic climate; and role of the food system in economic development and employment, environmental sustainability, health, and nutritional outcomes. It would consider the effectiveness (or lack of it) of current governance systems and political climate in delivering against these holistic objectives.

### 3 Theory of Change

To operationalize this, the suggested theory of change for sustainable food system demands a three-prong strategy involving research, capacity building and outreach. The implementation of activities under these pillars as spelled out in respective work packages.

**Collaborative Research:** if we generate evidence on the effectiveness of food and agricultural policies in influencing food security, nutrition, and poverty then we provide the basis for improving future policies to deliver results. Further research on new and innovative ways of extension delivery, value chain development, gender mainstreaming, will generate knowledge to guide current and future program implementation. In addition, if we produce **diverse crops** from different food groups, such as legumes, vegetables, fruits, and cereals, small-holder farmers will have access to diverse diets.

**Capacity building and education:** if we build the capacity of staff, students and other stakeholders, we will create a resource pool that can be used to transform the food systems by carrying out relevant research, policy analysis, and designing development programs. There is an opportunity for improving the capacity in sustainable food systems by training LUANAR staff, students, TRANSFORM partner staff and farmer facilitators in the competencies needed to facilitate and will result in significant growth of the agricultural sector, increasing incomes for farm households, improved food and nutrition in Malawi. In the end, there will be an overall positive effect on both socio-economic and environmental aspects, it will also facilitate the development of sustainable food systems that lead to improved food and nutrition security, increased income, and building resilience to climate and other related shocks.

If we **disseminate** promising technology that contributes to resilient food systems that can deliver food security, nutrition, and poverty reduction then we can begin to transform the food system to address the inherent weaknesses.

This theory of change is grounded upon LUANAR's current strategic plan (LUANAR, 2019) that aims to: 1) Transform undergraduate, graduate and short term trainings with a firm commitment of developing knowledgeable, skilled, and engaged graduates prepared for an ever-changing global environment; 2) achieve high-impact innovative research that addresses national and global challenges to improve health, environmental and economic sustainable development and 3) develop partnerships with relevant government and non-governmental institutions (including DARS, DAES, CGIARs and for the co-generation, transfer, adoption and application of technologies to enhance sustainable food systems. In particular, FoodMa will contribute to LUANAR's Strategic Plan pillars of teaching and learning, research and outreach, human capacity building and governance and management. In policy research, outreach and advocacy, FoodMa envisages to strengthen its collaboration with institutions such as the National Planning Commission (NPC) and Malawi Agricultural Policy Advancement and Transformation Agenda (MwAPATA). FoodMa therefore provides an excellent platform for the much-needed



transformative education programs, collaborative innovative research and dissemination for the realisation of sustainable food systems in Malawi.

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## FoodMa Impact and outcomes

The programme aims to contribute towards resilient sustainable food systems in order to improve food and nutrition, and increase income among the agriculture-dependent rural households in Malawi. The intended impact will be achieved through the attainment of the following outcomes that are interlinked between the four work packages in which FoodMa is conceptualized:

- Increase competencies required to facilitate sustainable food systems and improved food and nutrition security, and, increased income among agriculture-depend households.
- Develop, test and validate evidence-based and innovative methodologies for climate resilience and transform the sustainable food system from previous RNE-funded projects and those co-developed with TRANSFORM participants.
- Enhance practical knowledge and skills for influencing government policies in sustainable food systems in Malawi; and
- Enhance capacity of LUANAR to respond to emerging issues in sustainable food systems through business development, upscaling of best bet innovations.

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## Work Packages

FoodMa outcomes will be achieved through work packages; 1) Food system governance, policy and institutions, 2) agricultural biodiversity, farming systems and seed security, 3) Climate change and, Sustainable Agriculture Intensification, and 4) cross cutting issues. These WPs are interlinked and aligned to the investment priorities identified in the NAIP (2018-2022), the Norway’s Action Plan for Sustainable Food System (2019-2023), and TRANSFORM programme (Table 1).

**Table 1 Alignment of Work Packages to NAIP, Norway’s Action Plan and Transform Programme**

<b>Work Package</b>	<b>NAIP Program</b>	<b>Norway’s Action Plan for Sustainable Food System objectives</b>	<b>Transform Programme</b>
Food system governance, policy and institutions	Program A – Policies, institutions and coordination for results	Policy and Governance – Sustainable food systems are promoted at a national level, regional and global levels and strengthened through institution building	Outcome 7 – Improved policy and regulatory environment for agriculture and climate resilience

Agricultural biodiversity, farming systems and seed security,	Program C – Production and Productivity for Growth	Food Production – Increased sustainable, climate resilient food production and increased productivity from agriculture, fisheries and aquaculture sectors.	Outcome 2 – Increased productivity, production and diversification of climate adaptive agriculture.
Climate change and, Sustainable Agriculture Intensification	Program B – Resilient livelihoods and agricultural systems	Food Production – Increased sustainable, climate resilient food production and increased productivity from agriculture, fisheries and aquaculture sectors	Outcome 1 – Evidence-based and innovative methodologies for climate resilience and agricultural transformation developed, tested, and disseminated  Outcome 4 – Increased resilience to climate change at the household and community level
Strengthening capacity of LUANAR to respond to Food Systems emerging issues	Program A – Policies, institutions and coordination for results	Food Production – Increased sustainable, climate resilient food production and increased productivity from agriculture, fisheries and aquaculture sectors	Outcome 5 – Improved profitable market access and entrepreneurship

Agricultural productivity growth and diversification is a prerequisite to achieving poverty reduction and FNS in Malawi. Yield increases for a diverse array of crops will increase availability and access to nutritious foods for the population and boost incomes for the farm households. For this to happen, there is need for farmers to use quality seed, modern techniques and technologies not only for maize but other food crops. The interventions under FoodMa are designed to contribute to results in this area. However, wider adoption technologies and diversification of farms will require supportive public policies and programmes.

Having these in place will require on-going review of existing policies to measure current impact and potential impact of reforms to generate evidence that will guide reforms to make future policies more effective. In addition, better coordination between research, extension and farmers is required to ensure that innovations are adopted and utilized. The intervention under work package 1 are designed to strengthen capacity of the university and the country at large to carry out policy analysis for this purpose. The inherent vulnerability of our agricultural systems demand that any gains achieved be guarded against shocks to avoid losing the benefits to climatic and macroeconomic shocks. Therefore, through WP 3 activities will be implemented to ensure that the benefits accruing from implementation of WP

1 are sustained and livelihoods are more resilient. Other issues of importance to achieving FoodMa's goal that overlap between the proposed work packages will also be looked under the cross-cutting work package.

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## **Work Package I: Food system governance, policies, and institutions.**

The transformation of the food system in Malawi depends on enabling policy and regulatory framework. Evidence-based policy work, advocacy for reforms, and capacity building of NGOs, CSOs and networks are important for developing policies and strategies that address the most vulnerable segment of the population. The influence of CSOs and their networks depends on the will and interest of government institutions and decision-makers to include those in policy fora. This again requires awareness and possibilities among government officials and decision-makers to understand shortcomings and the importance of more participatory policy processes. However, adequate policies and strategies are not sufficient by themselves. Active involvement of government institutions, capacity building, and the capacity of FoodMa to show positive results will be crucial for creating a more transformation-friendly political environment. In order to achieve an enabled policy environment, FoodMa will conduct the following activities under this work package:

- Document prevailing agricultural, trade, food, and other relevant policies, institutional and governance on Malawian urban and rural food systems (targeting equity, food, and sovereignty).
- Analyze the role of documented policies on biofortification, food processing, value addition, job creation, and private sector development.
- Assess the impact pathways of documented policies on food systems outcomes such as nutrition and food security for gender and vulnerable groups.
- Develop and pilot practical methods of addressing the challenges of accessing productive resources for vulnerable and marginalized groups that include women and children.
- Disseminate lessons for policy and programmes.
- Develop and implement short courses on food system governance, policy analysis and institutions.
- Map Knowledge Attitudes Practice (KAP) among actors in the nutrition-sensitive agriculture.
- Conduct policy network analysis for the agri-food system in Malawi (Power relations, Role of evidence, Potential entry points for evidence generated by FoodMa)
- Introduce Malawi food and agricultural research conference (in collaboration with DCAFS, CGIAR, MoAFS, and other stakeholders).
- Introduce Young scientists' network that promotes sustainable food systems
- Create and operationalize curricular advisory boards with the private and public sector to inform food systems training
- Support national agricultural transformation policy think tank on food systems
- Review and design food systems research, training and outreach programmes
- Strengthen grassroots policy review and implementation through the local governance system.

- Establish and operationalize university private sector/ public sector engagement on research by strengthening LUANAR's Research Directorate, Public Relations and Information, Communication and Technology sections.

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### **Work Package II: Agricultural biodiversity, farming systems, and seed security.**

Improving policy arena is not enough without analysis of agro-biodiversity, seeds and farming systems. Therefore, integrated farming systems, which include livestock, will also increase access to animal protein, as well as providing other benefits such as the use of manure for adding nutrients to the soil. FoodMa will conduct the following activities under this work package:

- Assess agro-biodiversity, farming systems, and seed security.
- Assess long term rural livelihood strategies and food systems in Malawi based on long term panel data.
- Assess seed systems for nutrient-dense crops.
- Pilot innovative ways of encouraging adoption of nutrient-dense food crops such as OFSP, Quality Protein Maize.
- Conduct studies on site-specific recommendations on crop/livestock mix for food security and income.
- Evaluate strategies for sustaining seed systems for orphan crops.
- Evaluate mechanisms to safeguard farmers' rights.
- Assess policy and regulatory framework to govern the developing and conservation of local and introduced genetic resources.
- Disseminate lessons for policy and programmes.
- Strengthen evidence-based policy advocacy for the conservation of local and introduced genetic resources.
- Develop community-based breeding, production (feeding, health) and marketing models for semi-intensification.
- Curriculum review to include lessons learnt from this work package.
- Enhance dissemination of lessons learnt.

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### **Work Package III: Climate change and, Sustainable Agriculture Intensification (SAI)**

Despite the emergence of COVID – 19 pandemic, climate change is still a force to reckon with. Malawi is still faced with climate change, FoodMa further proposes to develop innovations on climate change adaptation and mitigation with emphasis on personal transformation at all levels. In order to achieve that, FoodMa will conduct the following using its three pillars:

- Develop land restorative agricultural practices in the context of sustainable food systems
- Develop and promote biotic and abiotic (stress) tolerant strains.
- Conduct agricultural diversification and sustainable intensification and mainstream the lesson in the education curriculum.
- Establish, test and roll out university-led extension and advisory services
- Develop and conduct short courses on personal transformation of food systems.

- Enhance LUANAR's capacity to manage emerging issues challenging food systems such as Fall Army Worm.

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#### **Work Package IV: Cross cutting issues - Promoting innovation, value chains and partnership**

In addition to the three work packages, FoodMa will also address other cross cutting issues that are of value in the attainment of the anticipated sustainable food systems. This package has activities that revolve around the three operational pillars (Education, research and dissemination). In order to achieve the outcome of this work package, the activities below will be implemented:

##### **a) Empower students in business development**

FoodMa will focus on female student-entrepreneurship schemes. Students will work in groups and run agri-business ventures on the identified value chains under WPs 1, 2 & 3. The rolling out of the agri-business ventures will be technically backstopped by LUANAR faculty and relevant private sector players through the Agribiz Hub at LUANAR. The students will mount agri-business ventures at LUANAR farm and TRANSFORM impact areas using a revolving fund model. Through the anchor farm model, the students will provide extension and advisory services to their immediate surrounding farms while simultaneously gaining practical skills.

##### **b) Upscaling and out scaling of technologies from previous programmes and LUANAR**

The Norwegian Government has provided support to LUANAR (Bunda College) through many research and development programmes. Some of the outputs under these programmes were innovations in food production, processing and climate change. Therefore, FoodMa will upscale and out-scale some of these technologies in the proposed implementation areas in collaboration with TRANSFORM partners.

##### **c) Conduct commissioned research of emerging issues on production and consumption of nutrient dense and biofortified foods products**

Gender is a critical element that should be considered in food production, processing, distribution and utilisation with women playing an increasingly important role. Despite the role of women in food, their access and influence on decisions about food is low. In addition, children are usually on the receiving end on the decisions affecting production, processing and distribution of food. The emergence of child-headed households through orphan hood also call for a gender lens when dealing with this vulnerable group. Associated with this are adverse development outcomes such as malnutrition. In order to have an in-depth understanding, FoodMa will commission research on nutrient dense and biofortified food products to inform policies of food production.

**d) Enhance the capacity of LUANAR**

Realising LUANAR's lack of capacity, FoodMa envisages to train university management agriculture value addition to support reforms in line with Malawi Government and development partners policies. In line with these changes, FoodMa will establish and operationalise e-based platforms for sharing knowledge on emerging issues. The other emerging issue will be establishment of e-governance systems in procurement, communication, meetings / conferences, and Human Resources Management (HRM).

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## 4 Programme implementation strategy

In line with donor's preference and based on initial stakeholders' consultations conducted with partners under the TRANSFORM Programme, the Sustainable Food Systems in Malawi Programme (FoodMa) will be implemented at the national level in five districts namely Mzimba, Rumphi, Mchinji, Dowa and Kasungu. However, depending on emerging issues at the national level, research and outreach projects of widespread concern and benefit, may be implemented outside these targeted districts. In order to contribute towards the Norwegian Action Plan on food systems, FoodMa and TRANSFORM programmes in Malawi envisages to strengthen their collaboration. These two programmes will target the same small-scale farmers. In FoodMa, LUANAR and NMBU's competencies are in research and education whereas TRANSFORM partners are strong on outreach. Therefore, the capacity of the extension workers who are in direct contact with these small-scale farmers shall be built and enhance the coordination and networking. The research outputs from the demand driven research from FoodMa will be easily adopted using this extension model. This strategy will enable the TRANSFORM to be an outreach for FoodMa products. Another avenue will be attaching students to work with the farmers and local NGOs in solving their day to day food system challenges. In addition to the above some activities under the TRANSFORM programme for LUANAR & NMBU will have shared budgets between the two programmes. For this proposed synergy to be effective, FoodMa governance structures will include some members from the TRANSFORM consortium. This arrangement will add value to the implementation of these two programmes as the proposed bi-annual meetings will be able to streamline the implementation of these two programmes.

Specifically, the target beneficiaries of the programme will include smallholder men and women farmers, private processors and traders (off-takers), service providers and input suppliers along the commodity value chains. The Programme will target policymakers at various levels as entry points for policy engagement, dialogue and change for the benefit of intended beneficiaries. In addition, to build human capacity, postgraduate students will also benefit from the programme.

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### Project Implementation

All FoodMa Programme activities will follow a Thematic Work Package approach with expected outputs and outcomes as detailed in the result-framework. Activities will take place under three operational pillars of Collaborative Research, Capacity Development and Education, and Dissemination and outreach activities, including partnership for impact.

Research just like education and outreach is a major pillar in which FoodMa will be implemented. Apart from research that will be tied to postgraduate training (MSc & PhD) for LUANAR staff and students. The other research will be based on competitive grants and commissioned research on emerging issues. All research areas will be advertised using local newspapers in Malawi in order to attract

competent researchers. While in Norway, advertisements will be uploaded on NMBU website. Unlike ARDEP and CABMACC where call for concept notes and proposals were advertised, FoodMa will be driven by work package leaders who will drive the research to be conducted as spelt under each work package.

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### **Collaborating Partners**

LUANAR will be the primary coordinating and major implementing institution of FoodMa Programme through the Programmes Coordinating Office (PCO) with support from NMBU on the Norwegian side. Besides, LUANAR will collaborate and network with other relevant stakeholders including local NGOs, relevant line ministries or departments, local district councils and related private sector institutions in the selected target districts with links to the TRANSFORM Programme and pertinent other avenues to create synergy and sustainability. Where applicable, the Programme will strive to work with existing viable groups, including those formed in previous programmes. In these collaborations, LUANAR will be involved in conducting research or learning processes to scale out/up evident-based innovations and technologies or extension methodologies or approaches.

LUANAR will establish new – and update existing Memorandum of Understandings (MoUs) with the TRANSFORM Programme partners. These NGOs and CSOs include: African Institute for Corporate Citizenship (AICC), Anglican Council of Malawi (ACM), Assemblies of God Care (AG-Care) and Catholic Development Commission of Malawi (CADECOM), Biodiversity Conservation Initiative (BCI), Centre for Environmental Policy and Advocacy (CEPA), Find Your Feet (FYF), Malawi Union of Savings and Credit Cooperatives (MUSCCO), Network for Youth Development (NFYD), Trustees of Agricultural Promotion Program (TAPP) and Total Land Care (TLC).

The MoUs will establish formal links for undertaking joint activities in research, training and outreach activities for mutual benefits of institutions and target communities. Specifically, the collaboration between LUANAR and NMBU will contain a Collaborative Agreement specifying the following items:

- (i.) Participation in joint research activities
- (ii.) Involvement in programme workshops and scientific conferences
- (iii.) Joint supervision of Malawian MSc and PhD students where relevant
- (iv.) Facilitation of staff and student exchange
- (v.) Programme management and administration at each institution
- (vi.) Annual plans and budgets for each institution
- (vii.) Financial accounting and reporting
- (viii.) The funding of FoodMa activities will be channelled directly from the funder to each of the two institutions namely LUANAR and NMBU.



## 5 FoodMa management and administration

### Management

The Programmes Coordination Office (PCO) at LUANAR will be the Secretariat for overall management and administration of the FoodMa programme. The Programme shall be led by a Programmes Coordinator who shall be appointed by the leadership of LUANAR as per laid out procedures and regulations. The Norwegian University of Life Sciences has appointed Professor Lars Olav Eik as Programme Coordinator to coordinate activities on the Norwegian side. NMBU has also identified three senior researchers; Ruth Haug, Ola Westengen and Bishal Sitaula that will potentially participate in WP1-3, respectively. Mainly, these researchers will focus on capacity building and supervision of research by four LUANAR-staff selected for PhD-studies at NMBU. Under this, LUANAR will propose four candidates among its young staff for each of the four scholarships at NMBU. NMBU will select the best candidates based on quality criteria at NMBU for the respective study programs that must be met. NMBU will also make available appropriate supervisor (s) for the selected candidates. The cost of the scholarships will be on the LUANAR budget line.

At LUANAR, the Programmes Coordinator shall be assisted by the Monitoring and Evaluation Specialist and Work Package Leaders who will be competitively chosen based on their expertise. At PCO level, there shall be a Monitoring and Evaluation Specialist, Programme Secretary, Programme Accountant, Driver, Office Assistant and Office Guard.

The functions of the PCO shall include:

- Coordinating activities under FoodMa Programme
- Monitoring and coordinating overall programme execution
- Coordinating and compiling reports for programme activities before submission to the Programme Advisory Committee (PAC), Annual Meeting and Royal Norwegian Embassy (RNE)
- Ensuring that documentation required by the PAC for purposes of monitoring, evaluation and decision making are prepared and provided on time
- Submitting half yearly technical and financial reports to the RNE
- Requesting for disbursements of programme funds from the RNE as guided by the approved Programme Document and Programme Agreement
- Ensuring that disbursement from RNE go directly to each of the respective institutions namely, LUANAR and NMBU
- Ensuring that programme accounts are correctly maintained and timely audited
- Following up on recommendations of the Annual Meeting
- Reviewing annual implementation and procurement plans submitted, before their submission to the Annual Meeting
- Ensuring compliance to Programme Document and Programme Agreement

- Reviewing and consolidating progress reports submitted by project leaders and participating institutions

The Programme will follow Management Structures as established and used under the ARDEP and CABMACC Programme in line with LUANAR and NMBU rules and regulations.

### **Programme Advisory Committee (PAC)**

Besides PCO, a Programme Advisory Committee (PAC) will be established. The Terms of Reference of PAC will include but not limited to (i) providing overall oversight of FoodMa Programme (ii) overall monitoring, quality control of programme implementation and providing guidance and timely advice on strategic direction of the programme and assess alignment with, and progress towards achieving programme goal, objectives, expected outputs, outcomes and impacts.

Members of PAC shall comprise of representatives from:

- Ministry of Agriculture
- Ministry of Finance
- Office of the Deputy Vice-Chancellor (LUANAR)
- Directorate of Research and Outreach (LUANAR)
- TRANSFORM Programme Consortium.

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### **Annual Meeting (AM)**

The FoodMa Annual Meeting is a national level committee which will act as the overall overseer of the whole programme. Annual meetings will be held in June, and their main functions (TORs) shall be to:

- Provide the overall policy direction to the Programme
- Make final approvals of work plans, budgets and overall activities of the Programme
- Review progress and overall performance of the programme
- Discuss and approve proposals for extension of ongoing or new projects
- Approve work plans and budgets for the next financial year
- Receive and discuss issues of concern for implementation (including virement of funds where necessary)

Members to the FoodMa Annual Planning Meeting shall include:

- Principal Secretary for Ministry of Finance (MoFEPD)
- Principal Secretary for Ministry of Agriculture & Food Security (MoAFS)
- Principal Secretary for Ministry of Education, Science and Technology (MoEST)
- Delegates from the Royal Norwegian Embassy (RNE)
- PAC Chair
- Vice-Chancellor – LUANAR
- Deputy Vice-Chancellor - LUANAR

- The Head of Department, Noragric, Faculty of Landscape and Society, NMBU
- Ex-Officio members
  - Programme Coordinators (PC) – Malawi & Norway
  - Monitoring and Evaluation Specialist
  - Programmes Accountant
  - Registrar – LUANAR (Secretary)
  - Director of Finance - LUANAR
  - On invitation – Media Specialist

The Registrar of LUANAR, together with the Programmes Coordinator, shall prepare the minutes of the Annual Meeting. These will be signed as a joint record by both the Head of the Embassy and the Annual Meeting Chair as representative of the Malawi Government. Agreed and signed minutes shall be distributed to members not later than one month after the meeting.

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## 6 Monitoring and Evaluation

Monitoring and Evaluation will be an integral part of project management activities. A Consultant will be recruited for two (2) months in the first year of the Programme to assist with the establishment of a comprehensive monitoring and evaluation system. Internal Programme Review Meetings shall be held bi-annually to assess and review critically the progress made so far. Such sessions will be facilitated by external facilitators and shall involve all Work Package leaders, component and sub-component leaders and all members of the Project Implementing Team. The proceedings from these meetings shall form the basis of the Annual Reports, which shall be submitted together with work-plans and budgets to the Annual Meetings.

In order to benchmark the success of FoodMa, a team of consultants will be engaged through open and competitive processes through advertisements to carry out a baseline survey in the first year of the programme while a mid-term review will be conducted in the final quarter of the second year. The planned baseline survey shall take advantage of the TRANSFORM baseline because the targeted implementation sites and households are the same. Furthermore, TRANSFORM has developed a database that FoodMa will take advantage of in executing its monitoring and evaluation. Enabling environment has been leveraged through the TRANSFORM MEAL Technical Working Group in which LUANAR is an active member.

Finally using the same competitive bidding methods and in liaison with the Royal Norwegian Embassy (RNE) in Lilongwe and TRANSFORM partners, Terms of References (ToRs) for the end of programme evaluation shall be developed to engage an external consultant to conduct the task. To track the progress of implementation, FoodMa has developed a comprehensive result framework (Attached) that will be updated once the baseline values have been populated.

## 7 Funding Mechanisms

As part of the collaboration with Malawi, the Norwegian Government plans to fund the two interlinked Programmes, FoodMa and TRANSFORM. The budget for FoodMa is pegged at NOK 47.785 million (Table 1). This will be allocated to LUANAR-NMBU activities with NOK 42.8 and 4.88 administered by LUANAR and NMBU, respectively.

Table 1: Summary of FoodMa budget subdivided into thematic areas

Work Packages	2020/21	2021/22	2022/23	2023/24	Total	Proportion
	NOK	NOK	NOK	NOK	NOK	%
Food system governance, policies and institutions.	1,596,907	2,505,336	3,112,689	2,881,838	10,096,770	21%
Agricultural biodiversity, farming systems and seed security	1,027,497	3,553,559	2,305,833	1,059,914	7,946,803	17%
Climate change and, Sustainable Agriculture Intensification (SAI)	2,497,239	1,718,926	1,724,833	1,721,493	7,662,491	16%
Cross cutting issues: Production systems, value chain and partnership	1,654,500	2,050,500	1,132,500	782,500	5,620,000	12%
Management of program work packages & research grants	1,243,000	2,783,000	765,000	865,000	5,656,000	12%
Monitoring & Evaluation	665,080	1,015,080	665,080	1,015,080	3,360,320	7%
NMBU related costs	906,897	565,133	587,863	309,707	2,369,600	5%
Programme Coordination and Implementation	1,748,425	1,108,425	1,108,425	1,108,425	5,073,700	11%
<b>Total</b>	<b>11,339,545</b>	<b>15,299,959</b>	<b>11,402,223</b>	<b>9,743,957</b>	<b>47,785,684</b>	<b>100%</b>

**At NMBU**, the funds will be used for: 1) salary compensation to the university for its staff, 2) travel expenses and 3) support for students.

**For LUANAR**, funds will support costs and expenses related to 1) Compensation to the university staff for the project time, 2) costs of research, capacity building and outreach activities 3) support for coordination related expenses such as stationery, equipment (computers), communication including internet, vehicle maintenance 4) purchase of two field vehicles and 5) travel expenses. A detailed budget has been provided as a separate excel file.

### Financial Management

The RNE will disburse the FoodMa Programme funds to LUANAR in a separate Foreign Currency Denominated Account (FCDA) interest-bearing and convertible

project account maintained by the PCO at LUANAR. Disbursement will be done based on work plans and the budget approved by the Annual Meeting.

NMBU FoodMa Programme funds will be transferred directly from RNE to NMBU following the approved budget and work plans as well as general accounting and auditing procedures for public institutions in Norway.

The University through the PCO will disburse funds to the various project implementers upon requests received following the prescribed activities as approved by the governing board using LUANAR accounting systems and regulations. Use of such funds will be according to the respective government and institutional financial rules.

The University through the PCO will submit statements of expenditure of the preceding financial period before receiving disbursements for the next fiscal period. The Programmes Coordinator through the Office of the Vice-Chancellor for LUANAR shall also be responsible for preparing requests for funds under the Programme on a semi-annual basis after approval has been received from the Annual Meeting. Requests for funds shall be accompanied by full documentation, as stated in the Programme Agreement.

The PCO shall make requests with copies of the requests sent to the Ministry of Finance, Ministry of Education and collaborators. The funds shall be released directly to the FCDA Programme account. Activities will be carried out following the approved budget and work plans. Funds to cover expenses accrued shall be based on agreed work plans and specified budget.

Withdrawal of funds from the Programme Bank Account will follow standard accounting procedures. Each year the annual report will include the work plans and the budget for the following calendar year and funds for the first six months of the next year will be released on submission of a satisfactory annual report.

Accounting and Auditing: Accounts shall be maintained by the Programme and shall submit expenditure statements on a half-yearly basis. The accounts of the Programme will be audited annually by reputable audit firms approved by LUANAR Council according to LUANAR Audit policy, and reports submitted to relevant stakeholders with copies to LUANAR. In addition to annual audits, accounts will be subject to internal audits as per the requirements of LUANAR Audit Policy. The audit will be done according to Malawi Government financial regulations to have the reports ready in time for the Annual Meeting.

## 8 Programme sustainability

Sustainability considerations will ensure that the proposed activities continue and are up-scaled beyond the life span of the Programme. Sustainability components will include:

- **Capacity development and training need assessment:** This activity is necessary to provide an initial assessment of the capacity needs to support the long-term sustainable operation and maintenance of the programme. It is believed that the ability to implement, monitor and sustain the project is key to success. The assessment will, therefore, provide systems change and provide the basis of the subsequent training plans and attendant implementation.
- **Human Resources and Capacity Development:** Programme and project staff training or expertise building in a range of matters, including strategic planning skills, knowledge of needs assessment and leadership skills and project management, is essential to project sustainability.
- **Alignment to national, regional and global goals/instruments and existing projects or programmes:** As alluded to above, the FoodMa will be aligned to national and global frameworks including the MGDS III, NAIP, NAP and SDGs, among others. For LUANAR, project activities will remain part of the routine activities of LUANAR by integrating the goals of the programme and projects with the goals/vision/mission of LUANAR. Besides, political will and buy-in by key host ministries at national and council level will also be essential.
- **Broader Community Support for the programme is necessary:** Support by the target clientele or community as manifested in the cooperation of community bodies (e.g. schools, community organizations, government agencies, etc.) with the project implementers is a significant predictor of its sustainability. The programme will, therefore, enforce and inculcate upon all stakeholders the importance of strengthening the sense of ownership among the beneficiaries to increase their motivation to sustain it. Establishing clear paths to impact by engaging with innovative, trusted partners from the onset will be crucial to success. In this regard, integrating the expertise of diverse stakeholders will promote collective growth in capabilities and provide a more robust base for addressing identified challenges. More importantly, target community involvement is required.
- **Design and Implementation (Employing a Theory of Change):** The Programme includes clear definitions of the target population, the needs to be met by the programme and project activities, the expected outcomes of the Programme, and the interventions employed to attain them.

- **Demonstrable effectiveness:** To mobilize the resources required to sustain the Programme beyond its initial grant, it is not enough that the Programme attains its objectives. The Programme must be able to document its success and disseminate the evidence among stakeholders. As such, the FoodMa will attempt to promote programme visibility that will draw the interest of other actors.
- **Organisation stability and flexibility:** The programme will integrate new elements into its structure, culture and implementation: changes in the organization's structure, approaches, and values as appropriate. FoodMa will have programme champions to promote the programme and its projects in the organization and the community.
- **Ongoing project monitoring and evaluation:** The programme will have a distinct M and E and Learning framework. Programme evaluation is a valuable tool to promote the fulfilment of programme goals, sustainability and efficient use of resources. The MEL framework will also be useful in identifying problems in the Programme and in facilitating flexibility.
- **Project flexibility:** The programme will be guided by an internal process where activities, with appropriate approvals, will change following changing circumstances and emerging issues in the course of their implementation. These processes will include but not limited to stopping or cancelling a project that does not show progress or elements of success or impact.

In summary, the sustainability of the programme will be influenced by activities that will be undertaken from the design, implementation and evaluation stages to enable mainstreaming and integrating up-scaling on a long-term basis even after programme phase-out. These are:

- Addressing **real needs** in the communities.
- Integrating and collaborating with **existing actors** such as NGOs with similar development agendas under transform.
- Dialogue with **potential partners** to identify knowledge gaps and complementary/synergistic roles and resource pooling.
- Early identification of **public and private sector partners** with stable and attractive business cases that can benefit the poor and those willing to incur direct financial involvement – sustainable public-private investment
- Synergize and synchronize programme strategies and objectives with Local Government Authorities (**LGAs**), Non-Government Organizations (NGOs), and community-based organisations that are willing to engage in activities from the beginning or will assume a continuation of upon withdrawal of the donor
- Work with Norwegian partners to that all activities are aligned with Norwegian priority support thematic areas as per the White papers.



- Have the capacity to test the developed technologies and innovations and be able to make the necessary amendments in the early stages of the Programme.
- Work in a few areas that are logistically practical to reach and implement projects
- Work with local champions and motivators such as lead farmers

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### **Environmental sustainability**

To ensure that synergies are adequately secured and captured, implementation of this Programme will entail the use of approaches that integrate the planning of land, agriculture, food and forests depending on project activities in line with existing policy frameworks. Where practically possible, the programme will promote activities that reduce greenhouse gas (GHG) emissions but enhance carbon storage and promote the integration of animal husbandry and agroforestry, leading to improved soil fertility and efficient recycling of nutrients. Climate-smart agriculture practices and carbon sequestration activities including minimum tillage, cover crops, efficient use of residue, mulching, compost and green manure, targeted application of fertilizers and reduced biomass loss through burning will be promoted as appropriate.

A vital issue in the planned TRANSFORM collaborative intervention programme, as well as in the FoodMa collaboration and research programme is: How to *combine* improved food and nutrition security with increased incomes and enhanced resilience to climate change in agriculture-dependent households in Malawi. A food system approach, as developed in FoodMa, addresses the interacting factors and bottlenecks at an overall national level, including environmental and climate change factors as essential drivers in the food system.

## 9 FoodMa Exit Strategy

The Exit strategy for FoodMa draws upon the sustainability strategy explained above. The exit strategy is under the premise and understanding that it is not enough to deliver positive results only during the life of the Programme to be implemented. The common denominator is that programme results and impact will be sustainable after programme ends. The FoodMa Programme exit strategy will follow a three-tiered flexible approach based on the nature of each project activity being implemented i.e. through staggered graduation from specific project areas and attendant activities, simultaneous withdrawal from the entire programme area, or transitioning to other programmes or projects in selected areas through linkages with existing government or non-governmental organisations funded programme in the specific areas.

The FoodMa approach will be such that the Exit Strategy will be planned with programme beneficiaries and communities and collaborating partners in advance of close-out as way of encouraging commitment of beneficiaries to commit to programme sustainability. It is envisaged that the Exit Strategy and associated approaches will help to:

- a) prevent or resolve tension that may arise between the withdrawal of assistance and commitment to achieve programme outcomes.
- b) help clarify and define the commitment and roles of FoodMa to beneficiaries and target beneficiaries, communities and collaborating partners as being time limited, reducing the potential for misunderstandings and future dependency.
- c) inform a programme's sustainability plan or planning for its next phase.

### **Graduation Strategy**

Under this approach, FoodMa will exit from specific beneficiaries, communities or a project sites upon achievement of intended results. For example, those assisted with capacity building in terms of attendance to short courses will be discharged immediately but followed up in terms of how they use the knowledge and skills gained or any other support provided. As such, the graduation strategy' will describe how the beneficiary will be discharged/disengaged from further assistance while assuring achievement of the FoodMa programme's objectives. The other key assumption under FoodMa will be that the beneficiary has been adequately capacitated to undertake the next phase of the project by themselves. To ensure a supportive phase, research and outreach activities carried out by LUANAR faculty will be linked to the respective departments and specialists in addition to the office of the Director of Research and Outreach (DRO) while participating beneficiary communities will be linked to collaborating partners and the parent Local District assembly for continuity.

### **Programme Transition**

Where applicable and necessary, programme transition will be applied where the programme will be required out of necessity to change from one type of assistance programme to another in direct response to the need on the ground or emerging issues. For example, under severe drought, an intervention could change from supplying seeds to farmers to irrigation farming to cope with the situation or

changing from construction of a food processing shelter to a borehole to supply water for home, garden and livestock use.

In general, the approaches to be undertaken will include 1) phasing down, 2) phasing out and; 3) phasing over.

**Phasing down** will involve a gradual reduction of FoodMa Programme activities, utilizing local communities/beneficiaries to sustain programme benefits while FoodMa deploys fewer resources as per activity budgets.

**Phasing Out** will entail FoodMa's withdrawal of involvement after permanent or self-sustaining changes are realized, thus eliminating the need for additional external inputs. It is, however, highly recognized that attaining a level of maturity with some interventions may be after the implementation of this phase, as such effective awareness creation must be undertaken. In this regard, FoodMa will be designed in such a way from the onset to inculcate knowledge and skills prior to the maturity or realization of tangible benefits to allow for phase out without jeopardizing intended outcomes of the programme.

For example, under the Value addition component, the programme will advocate and foster inclusive market systems development, making markets work for the poor, and focusing on creating market linkages that will last even after exiting.

Under **Phasing over**, FoodMa will, based on prior arrangements and agreements, transfer programme activities to local institutions such as existing NGOs or local district assemblies in participating districts for take over. The programme will place a lot of emphasis on beneficiary and community capacity building so that the services provided can continue through local structures. For example, extension activities would be handed over completely to DAESS while research activities that need further exploration could be handed over to DARS.

Some of the key questions that the Programme will consider border on the following aspects:

- a) Community's sense of ownership/commitment to continue programme activities
- b) The extent to which the community value programme activities.
- c) Level of demand for the "phased over" services?
- d) Level of capacity building in terms of knowledge and skills needed to implement the programme activities community members, groups and service providers or collaborating partners.
- e) Sufficiency levels on institutional and human resource capacity of local organizations or district council to implementing the phased over activities.
- f) The resilience of beneficiary structures responsible for implementing phased over programmes to shocks and changes in the political and social environment.
- g) Viable plans to generate the consumable supplies (e.g. maintenance parts/inputs) that are required to implement activities.

### **Setting the Timeframe for Programme Exit**

The exit timeline for FoodMa will be linked to the programme period and attendant funding cycle which will, at the onset, be clearly communicated to the community. The programme will take cognizance of the fact that the exit plan remains flexible with the expectation that some of the exit criteria and benchmarks may need to be modified during the programme cycle. Implementation of the exit plans will be done

in a gradual, phased manner. It is envisaged that where necessary, a staggered graduation of project sites may be used to contribute to sustained outcomes by applying lessons learned from earlier sites to those that come later. Ultimately, after phase over or programme phase out is complete, continued contact with communities will help to support sustainability of outcomes.

### **Exit Strategy Monitoring and Evaluation**

The monitoring of Exit Strategy benchmarks under FoodMa will be integrated into the overall programme's monitoring and evaluation plan to prevent duplication of monitoring efforts and maximize use of existing data. While 'process indicators' are helpful to gauge the programme or beneficiary's progress along a developed continuum, 'result indicators' will be used to help graduate communities or to assess readiness to phase out programme activities.

The programme also proposes an ex-post programme evaluation be carried out to gauge and determine the success of the proposed FoodMa Exit Strategy, say after a period of two years following the programme exit. Key aspects to assess would include but not limited to gauging:

- (i) If the FoodMa programme impact has been sustained
- (ii) If relevant activities are continued in same or modified format
- (iii) If the systems developed under FoodMa continue to function effectively

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## 10 FoodMa Risk Analysis

In addition to instituting exit strategies, management of risks and any other uncertainties are of importance. Therefore, FoodMa's implementation team and relevant stakeholders will develop means of managing the risks associated with the programme at various levels. Some of the risks are manageable after experiencing them yet others cannot be managed but might be of low magnitude to have a serious impact on the implementation of FoodMa. The envisaged risks and management strategies are placed in different categories in Table 2 below where: Red is very high; pink is medium while yellow is low risk.

**Table 2: FoodMa risk analysis matrix**

IDENTIFYING RISK		ANALYSING AND ASSESSING RISK				TREATING RISK	Responsible Organization	When
Risk ID	Risk	Description of Consequence	Likelihood	Consequence	Degree of risk	Measure		
<b>INTERNAL RISKS</b>								
1	Corruption and finance mismanagement.	Misuse of funds in the program will lead to suboptimal results, suspension of fund, damage to reputation and trust to Universities	Medium	Low		Communicate clearly the policy of zero tolerance for corruption.  Adherence to University Financial Management Policies  Internal and independent audits	LUANAR, NMBU	On-going
2	Program not adequately gender sensitive	Program unintentionally worsens gender inequalities or not addressing this adequately. Results not achieved.	Low	Medium		Ensure gender audit in the programme.	LUANAR, NMBU	On-going
<b>EXTERNAL RISKS</b>								
1	Extreme weather: Drought or Floods	Weaken production  Results not achieved.	High	High		Better planning at community level to deal with extreme weather events.  Promotion of adaptation strategies.	LUANAR and NMBU	On-going

2	Political interference within the implementing communities	Benefits biased towards people who are affiliated with a political party	Medium	Medium		Transparency and clear criteria in selection of target groups. Promote participation of the target communities in project planning and implementation	LUANAR	On-going
3	Public extension service does not provide adequate investments nor extension services to the communities to promote technology transfer	Results of the program not sustainable Results not fully achieved.	Medium	Medium		Monitoring, evaluation and good governance. Advocacy on aligning investment to NAIP Provide training to government extension workers and Lead Farmers	LUANAR	On-going
4	Resistance of equal opportunities and rights for women and youths by society including negative attitudes towards women and youth in decision-making	Low participation of women and youth in decision making  Results not fully achieved.	Medium	Medium		Training in gender equality for local committees and local governance structures at district and community levels.  Raise awareness among men on the benefits of gender equality.	LUANAR and NMBU	On-going

						Support implementation of the Gender Equality Act and its popularization through the programme		
7	High Inflation / exchange rate fluctuation	Cost of implementation rises resulting in reduced activity level	Medium	Medium		Planning for major investments early in the program-period. Make contingency plans where inflation/exchange rate fluctuate highly. Reduce costs through collaboration with other actors/stakeholders.	LUANAR	On-going
9	Pest and disease outbreaks (new and old)	Yield is significantly reduced resulting in food and nutrition insecurity	High	Medium		The program will have a fund to carry out rapid assessment of disease outbreaks to inform stakeholders on action	LUANAR	On-going
10	COVID -19 Pandemic	COVID 19 pandemic which might derail the implementation of the programme	High	High		FoodMa will put in place mechanism to protect everyone involved in the project. The programme will as well strengthen the capacity of this testing facility so that it benefits the program beneficiaries.	LUANAR / NMBU	On-going
11.	Limited University expertise in advocacy and outreach	the University might not have adequate expertise to carry out various communication, outreach and especially advocacy work. Some skills are usually difficult to get in the University whose main core	Low	Medium		The programme will enhance internal capacity of the public relation office, directorate of the research and outreach and the ICT section while also directly working with various civil society organizations and	LUANAR/NMBU & Transform partners	On-going



		is mainly teaching and research.				NGOs anchored under the TRANSFORM programme.		
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