EDUARDO MONDLANE UNIVERSITY

CENTRE OF EXCELLENCE IN AGRI-FOOD SYSTEMS AND NUTRITION IN COLLABORATION WITH HIGHER POLYTECHNIC INSTITUTE OF GAZA (ISPG) AND HIGHER POLYTECHNIC INSTITUTE OF MANICA (ISPM)

CALL Nº 07/2025

June 16th, 2025

CALL FOR SUBMISSION OF PROPOSALS:

COMUNITY ACTION RESEARCH PROJECTS (CARP-E) FOR ENTERPRISE CREATION, INCUBACTION AND BUSINESS SPIN-OFFS

Title: **Agricultural Production Systems and Agro-processing in Mozambique**

1. Background

Agricultural sector plays a crucial role in rural livelihoods, food and nutrition security, and local economies in Mozambique. Agriculture provides not only food, but jobs, and income diversification for smallholder farmers. With nearly 70% of Mozambique's population residing in rural areas and depending heavily on agriculture, agro-processing is a critical component for post-harvest losses reduction for resilience and poverty reduction (FAO, 2021)[1]. Despite this potential, the agricultural sector in Mozambique remains underdeveloped and underperforming. Productivity is constrained by a number of persistent barriers. Chief among these are the high costs and limited availability of inputs, including quality animal feed, improved seeds, and fertilizers which are often imported and unaffordable for small-scale farmers (IFAD, 2020)[2]. Furthermore, limited capacity to handle process the produce/livestock products, particularly in remote and underserved areas, contributes to high post-harvest losses. These gaps are compounded by weak market linkages and

[1] FAO (2021). *Livestock sector in Mozambique: Opportunities and constraints*. Rome: Food and Agriculture Organization of the United Nations.

[2] IFAD (2020). *Agricultural Sector Assessment Mozambique*. International Fund for Agricultural Development.

fragmented value chains, limiting commercialization and investment across the sector (World Bank, 2022)[3].

Women and youth, who form a significant portion of the rural agricultural workforce, face even more significant constraints. These include limited access to land, financial credit, information, and decision-making spaces in food systems. This exclusion undermines the inclusivity and sustainability of agricultural development (CARE, 2019)[4]. Additionally, climate variability, droughts, and disease outbreaks further threaten both crop and livestock production and demand more adaptive, resilient systems (USAID, 2021)[5].

However, opportunities for innovation and transformation are emerging. Technologies and practices such conservation agriculture as well as the use of locally available materials for feed production, small-scale processing units, digital advisory services and an increasing demand for processed products and by-products are showing promise in improving access, efficiency, and profitability (ILRI, 2020)[6]. These solutions offer the possibility to reduce dependency on imports, lower costs, and deliver services closer to rural farmers and consumers.

These innovations, when designed in a more inclusive and context-specific manner, can improve access to affordable inputs, promote climate-smart practices, and stimulate enterprise development across the agricultural value chain. Moreover, supporting processing initiatives can potentially reduce food losses, increase produce/livestock product shelf life, protein intake, create job opportunities through small-scale processing units, and improve smallholder farmers' income and food security.

This call for proposals therefore seeks to identify and support innovative, scalable models that can strengthen agricultural (crop and livestock) production systems in Mozambique. It encourages proposals that promote cost-effective production techniques, processing, build inclusive market systems, and drive rural development with a focus on sustainability, gender equity, and climate resilience.

The projects need to be designed in ways that will result in enterprises that address the particular constraints identified and that respond to community needs. These enterprises can be owned and operated by communities, co-operatives, by entrepreneurs or by graduates, students and faculty members. The projects must actively engage with the communities they will serve and use a platform of stakeholders to support the business development. The proposal should identify which

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[3] World Bank (2022). *Mozambique Agriculture Public Expenditure Review*. Washington, DC: World Bank Group.

[4]CARE (2019). *Gender and Agriculture in Mozambique: A Policy Review*.

[5] USAID (2021). *Climate Risk Profile: Mozambique*. United States Agency for International Development.

[6] ILRI (2020). *Livestock and digital innovation: Emerging solutions for Africa*. International Livestock Research Institute.

constraints in the value chain will be addressed and indicate which other enterprises currently provide those goods or services and show the gap being addressed.

Applicants are especially encouraged to propose solutions that:

- Utilize local materials for input (seed/feed) innovation/production leading to production cost reduction
- Reduce losses and add value through small-scale processing initiatives
- Strengthen agricultural value chains through innovative production systems
- Empower women and youth through inclusive business and service models.
- Contribute to climate adaptation in agricultural production systems.
- Translate research innovations, technologies and practices into viable business enterprises to expand work opportunities.

The call for proposal aims to unlock the potential of agriculture and livestock as catalysts for improved livelihoods, enhanced food and nutrition security, and vibrant rural economies across Mozambique.

2. Thematic Areas

Thematic Area 1: Fertilizers and Feed Innovations, Production and Commercialization

This theme addresses inputs'(fertilizers/feed) quality, affordability, and local production constraints. Proposals may include:

- Development, promotion, and sale of organic fertilizers and feed formulations using local crop residues and agro-industrial by-products;
- Community-based, cooperative, or small inputs/feed businesses;
- Develop businesses using Digital tools for feed optimization and cost reduction;
- Small enterprises that promote, sell, or utilize Climate-resilient inputs/techniques to grow drought-tolerant crop/animal species.

Thematic Area 2: Production of drought-tolerant crops, and Climate-Resilient Pasture

This theme focuses on addressing issues related to climate change and water scarcity. Proposals may include:

- Drought-tolerant crops and service provision on good agricultural practices;
- Drought-resistant fruit trees through seedling grafting;
- Sustainable grazing practices and drought-tolerant forage crops (e.g. sorghum and millets) which have low water footprints and support livestock nutrition;
- Drought-resistant cereal crops, focusing on genetic enhancements for resilience;
- Community-managed pasture improvement initiatives;
- Agroforestry-livestock integration models that are developed as an enterprise.

Thematic Area 3: Livestock Breeding and Genetic Improvement Programs

To enhance productivity, this theme seeks projects that improve access to quality animal genetics. Proposals may include:

- Community-based breeding programs that can sell their services to members.
- Artificial insemination units and technician training that sell their services
- Cross-breeding programs for disease-resistant or climate-resilient livestock as part of a university or other enterprise.
- Performance tracking apps or genetic information systems that can be sold to cooperatives, breed associations, development agents, and others.

Thematic Area 4: Integrated crop-livestock production systems

This theme focuses on optimizing resource utilization, enhancing productivity, and addressing environmental concerns. Proposals may include:

- Rotational grazing to improve soil health and crop productivity;
- Agro-silvopastoral systems, combining crops, livestock, and trees for enhanced resilience;
- Use of crop residues as feed and manure as fertilizer, mainly for horticulture
- Soil and water conservation innovations linked to grazing;
- Livestock nutrition solutions (e.g., feed additives) that enhance animal health when fed crop residues or forages from integrated systems;
- Utilizing animal manure as a valuable organic fertilizer in crop production, reducing the need for synthetic fertilizers and promoting a circular nutrient flow within the farm.

Thematic Area 5: Inclusive Livestock Value Chain Development and Market Access

This theme aims to integrate smallholders into profitable livestock markets. Proposals may include:

- Establish enterprises or facilities to provide Aggregation hubs, cold chains, or processing facilities for meat, milk, and eggs.
- Small business providing Market information systems and price transparency platforms
- Service business providing Branding and certification of local livestock products.
- Contract farming or inclusive businesses with private sector partners.

Thematic Area 6: Small-scale agro-processing

This theme supports innovative small-scale processing initiatives. Proposals may include:

- Primary or basic crop and livestock processing;
- Secondary processing and value addition;
- Sustainable and low-cost packaging and storage.

Significant opportunities for processing crops like cashew nuts, maize, cassava, sugarcane, and horticultural products into higher-value goods for both domestic consumption and export, increasing domestic production of value-added products to reduce reliance on imports.

Thematic Area 7: Value Chain Modernization and Product Diversification

This theme aims to investing in modern, hygienic slaughterhouses, milk collection centers, and cold storage facilities to reduce post-harvest losses and meet quality standards for higher-value products integrate smallholders into profitable livestock markets. Proposals may include:

- Dairy Processing: Production of yogurt, cheese, butter, and other dairy derivatives, especially from local milk, which can extend shelf life and increase profitability;
- Meat Processing: Development of processed meat products (sausages, cured meats) and specialized cuts for local and regional markets;
- By-Product Utilization: Creative uses for hides, bones, and other animal by-products to minimize waste and generate additional income.

Thematic Area 8: Infrastructure Development

This theme supports innovative small-scale infrastructure development. Proposals may include:

- Development of cold chain logistics, including infrastructure for storage, transportation, and handling of perishable agricultural products;
- Improving storage capacity is vital to reduce post-harvest losses;
- Investment in modern and efficient packaging solutions is necessary for processed agricultural goods.

3. Who should apply

This call invites faculty members (Principal Investigators, Lecturers and researchers) from Eduardo Mondlane University (UEM), Higher Polytechnic Institute of Manica (ISPM), and Higher Polytechnic Institute of Gaza (ISPG) to submit proposals that align with the thematic areas outlined above.

4. Application Requirements:

- Be a Principal Investigator, Lecturer or Researcher of UEM, ISPM and ISPG.
- Technical and financial proposal: Refer to Annex 1.
- Curriculum Vitae.

5. Schedule of Activities

Table 1. Schedule of Activities

Activity	**Period/Date**
Submission of proposals	16 to 30 June, 2025
Evaluation and Selection	1ST to 3rd July, 2025
Publication of results	July 4th , 2025
Implementation period	July to December 2025

6. Budget

- Each selected project will receive funding of up to USD 15,000.

Application documents must be submitted to the following email address: dir.ceafsn@uem.mz by June 30th, 2025. The same email can be used for further details or additional information about the process. Details regarding the terms of reference and application forms can be accessed in the following website: www.ceafsn.uem.mz.

The Director of CE-AFSN

Rogério Chiulele

(Prof. Doutor Rogério Marcos Chiulele)

ANNEX 1:

1. CARP-E application form

2. Entrepreneurs/start-ups application form and with the Costing Excel.

Available in www.ceafsn.uem.mz