



Guidelines for the Bilateral Call for Collaborative Research Project Proposals in Food production and Processing / Agro processing; Tomatoe, Pineapple and Mango Value Chains

Opening Date: 11th September 2023

Closing Date: 10th October 2023

1. BACKGROUND

The **National Science and Technology Council (NSTC)** of the **Republic of Zambia** and **Ministry of Environment, Science, Technology and Innovation** of the **Republic of Ghana** are participating in the **Science Granting Councils Initiative in Sub Saharan Africa (SGCI)**. The SGCI seeks to strengthen the capacities of Science Granting Councils (SGCs) in supporting research and evidence-based policies that will contribute to socio-economic development of the countries. The Initiative is jointly funded by the United Kingdom's Department for International Development (DFID), Canada's International Development Research Centre (IDRC), South Africa's National Research Foundation (NRF), the Swedish International Development Co-operation Agency (SIDA), the German Research Foundation (DFG), the UK's Foreign Commonwealth and Development Office (FCDO) and the Norwegian Agency for Development Cooperation (NORAD). The SGCI works through Cooperating Technical Agencies (CTAs), among them being the **African Centre for Technology Studies (ACTS)**. The ACTS is an intergovernmental research think tank focused on strengthening the capacity of African countries to harness application of science, technology and innovation policies for sustainable development in Africa.

In contributing to national research systems in the two countries, NSTC and MESTI are partnering to jointly manage a Grant from IDRC/FCDO, being disbursed by the African Centre for Technology Studies (ACTS)-led Consortium of collaborating Technical Agencies (CTAs) of the SGCI. The grant will support applied research projects in Ghana and Zambia and will encourage the participation of **female researchers**.

2. RESEARCH THEMATIC AREA OF FOCUS

The broad thematic area of focus for this Bilateral Joint Call is **Food Production and Processing / Agro-processing** specifically focussing on **enhancing the Tomatoe, Pineapple and Mango value chains** in Ghana and Zambia. The Call will support research projects addressing one or more facets of food production and processing /Agro processing such as **processing, preservation, storage, value addition** and other **post-harvest management of tomatoes, pineapples and mangoes**.



3. RATIONALE OF THE BILATERAL COLLABORATIVE CALL

Sustainable Development Goal No.2 envisages to achieve food security through improved nutrition and promotion of sustainable agriculture. It further looks to double the agricultural productivity and incomes of small-scale food producers, in particular women, through secure and equal access to land, productive resources and financial services, markets and opportunities for value addition. The goal also seeks to ensure sustainable food production systems through implementation of resilient agricultural practices that increase productivity and production that help maintain ecosystems.

In line with these global aspirations, Zambia in its National Agriculture Policy 2012-2023 has a vision to develop a competitive and diversified agricultural sector driven by equitable and sustainable agricultural development through promoting sustainable increase in agricultural productivity of major crops with comparative advantage. Similarly, Ghana in its Accelerated Agricultural Growth and Development Strategy (AAGDS) has an objective of accelerating agricultural growth in order to enable it contribute to the country's economic growth.

Zambia and Ghana are endowed with a variety of agricultural produce, which sometimes goes to waste due to limited food conservation and value addition processes. Investing in applied research in food processing and value addition offers economic, social and environmental benefits. Adding value to agricultural products contributes to sustainable development, poverty reduction and improved food security while promoting innovation and economic development in the food sector. To contribute towards efforts to enhance value addition in food production in the two countries, NSTC and MESTI seek to fund collaborative research projects in the area of **Food production and processing / Agro processing**, specifically focussing on enhancing the **Tomatoe, Pineapple and Mango value chains**.

Processing tomatoes, pineapples and Mangoes will transform these raw agricultural products into high value products that would create new market opportunities and result in both economic and social benefits. It can contribute to food security by improving the shelf life and reducing post-harvest losses. Value addition to tomatoes, pineapples and mangoes can promote the coordination and integration of various players along the value chain and enable the two countries to diversify their export portfolios.

4. OBJECTIVES

The Bilateral Collaborative Call aims at fostering international cooperation and knowledge exchange between the two countries, with the view of promoting value addition to fruits and vegetables produced in the two countries, to increase industry competitiveness, job creation and reduce poverty. The specific objectives are to:

- contribute to the development of innovative and sustainable food processing/agroprocessing products, technologies, and practices;



- address key challenges and opportunities in food processing/agroprocessing, particularly in the tomato, pineapple and mango value chains;
- promote collaborative research, knowledge exchange, capacity building, and networking among researchers in the two countries.

5. ELIGIBILITY

- i. This Call is open to Researchers in Public and private science and technology Research and Development (R&D) Institutions/Centres and Institutions of Higher Learning in Ghana and Zambia. Institutions/centres in Zambia must be registered with NSTC. Consortia of female researchers are encouraged to apply;
- ii. Each research proposal must have two research teams in both countries, led by Principal Investigators based in Ghana and Zambia. The Principal Investigators shall be the main applicants and will bear the overall responsibility for the project including its technical and administrative co-ordination as well as the timely delivery of scientific and financial reports.
- iii. Principal Investigators must hold a PhD degree, preferably in a related field of the proposed thematic area, must demonstrate previous research in the area of the proposed work and must have the ability to provide mentorship to research teams;
- iv. The research team must have significant capacity, capability and leadership in the proposed field and must include early career researchers;
- v. The projects must have a Private Sector partner(s) in both countries and a collaboration confirmation letter from these partners must be submitted;
- vi. Applications must be supported with a letter from the host institutions in Ghana and Zambia. Proposals without institutional letters of support will not be considered.

Note: Applicants have the responsibility to find research partners in the collaborating country.

6. SCOPE OF FUNDING

- i. The maximum funding amount per research project is **550,000.00 Ghana Cedis** for the research team in Ghana and not exceeding **ZMW800,000.00** for the research team in Zambia.
- ii. Two separate budgets must be submitted; one for project activities for the research team in Ghana and the other for the research team in Zambia.
- iii. The funding may cover the following costs:
 - Research materials and consumables directly linked to the research project
 - Small research equipment and accessories directly linked to the research project



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- Local travel
 - International travel (Travel to partner countries)
 - Transportation and shipment of research materials
 - Specialised services
 - Post-graduate student research support
 - Workshops, seminars, conferences including national and international co-operation and networking activities directly associated with the funded research
 - Dissemination of results including publication cost

The following are **non-eligible** costs:

- Salaries and Honoraria for the research team
- Institutional overheads

7. Project Duration

The maximum project duration is **Fifteen (15) months**, starting from **15th November 2023**.

8. ELEMENTS TO BE CONSIDERED IN PROPOSAL PREPARATION

- i. Research Proposals must fall within the broad research thematic area of food production and processing/Agroprocessing, focusing on the Tomatoe, Pineapple and Mango value chains.
- ii. The proposed research should be **applied research**, practical and focused towards problem solving in the identified priority area and must be innovative, with strong potential for utilization and or commercialization.
- iii. Proposals must demonstrate strong inter and multi disciplinarily and collaborative approach among researchers and institutions.
- iv. Female Principal Investigators are strongly encouraged and the review and selection process will prioritize projects with female PIs or Co-investigators.
- v. The proposed project must include early career researchers and contribute to human capital development in research and innovation.
- vi. **Cross-cutting considerations** - The proposal should clearly demonstrate how the project will address issues of diversity, gender equality and inclusivity, public-private partnerships, risk management and intellectual property.



- vii. **Results and Dissemination** - Applicants should clearly define the major outputs expected from the research project and describe how the research findings will be disseminated or used. Who are the target audience/ beneficiaries? How will the findings be used to influence policy and practice? What media engagements plans are envisaged? Indicate how open access will be fostered.
- viii. **Project Governance** - Explain how the project will be governed; the composition of the research team, their qualifications, field of expertise and specific roles in the proposed project. What is the role of the university's/institution's management (if any) and how might this governance structure influence the success of the project?
- ix. **Partnerships** - Describe the planned partnerships with other universities/ research institutes? How will the private sector or beneficiaries be involved in the design/management/execution of the project?
- x. **Ethical clearance** - Where applicable, the Principal Investigator in the respective country shall obtain ethical clearance from an appropriate research ethics committee before any grant disbursement and implementation of the project.
- xi. **Budget** - An explanation and justification should be provided for each budget item. All rates to be used for the budgeting purpose are the ones acceptable by the respective institutions of the Principal Investigators hosting the projects.
- xii. **Proposed Project Timeline**
A Gantt chart of key activities, timelines and key milestones within the project duration must be provided.
- xiii. **Monitoring and Evaluation**
NSTC, MESTI and ACTS, in collaboration with host institutions in Ghana and Zambia will be responsible for monitoring and evaluation. Successful applicants will be provided with monitoring and evaluation templates.

9. PREPARATION, SUBMISSION AND PROCESSING OF PROPOSALS

- i. **Preparation of research project proposals**
 - a. Project proposals must be prepared jointly but must be submitted separately to the respective institutions (MESTI and NSTC) in the two countries.
 - b. The joint proposals must be prepared according to the provided guidelines. The **full proposal template** is available on the MESTI Online Grants



Management System; grants.mesti.gov.gh for **applicants in Ghana** and is available on the NSTC Online Grants Management System; nstcms.nstc.org.zm, for **applicants in Zambia**.

- c. The full application package shall include a full research proposal, covering letter; letters of support from the Principal Investigators institutions and private sector partners; abridged CVs of the Principal Investigators and all research team members; detailed workplan and budget.

ii. **Submission of Applications**

a. **In Ghana:**

- Application must be uploaded to <https://grants.mesti.gov.gh/>

b. **In Zambia:**

- Application must be through the **NSTC Online Grants Management System (OGMS)** at nstcms.nstc.org.zm. Applications that are not submitted via the online application system shall not be accepted.

A guide on how to use the OGMS is available on the NSTC website www.nstc.org.zm.

- All attachments uploaded on the Online Grants Management System must be in PDF format.

- c. The deadline for submission of proposals is **10th October, 2023**. Applications received after the deadline will not be considered.

- d. All applications will be received and processed in confidentiality with acknowledgment of intellectual property rights of the applicants.

iii. **Processing of Applications**

- a. A three-tier evaluation and review process will be used as follows: Screening of applications by each collaborating Council, Joint review of proposals by an equally represented review panel nominated by the collaborating agencies to make recommendations for funding and funding decisions by a Joint Committee of the collaborating Council.

- b. All research proposals will be evaluated and reviewed by independent experts and selected based on their quality and merit, taking into consideration their potential for high impact at society level, feasibility within the project timeline and at a reasonable cost as follows:



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- Scientific merit and quality of the proposed research;
 - Evidence of the capacity and capability of the research teams and their contribution to and leadership in the proposed field
 - Potential social and economic impact
 - Potential for human capital development for research and innovation
 - Consideration for gender and inclusivity dimensions
 - Demonstration of collaboration, inter and multi disciplinarity of the proposed research
 - Originality, innovativeness of the proposed research
 - and strong innovation/commercialization potential
- c. The review, selection of proposals and communication to applicants is expected to be completed by **6th November, 2023**.
- d. The decision of ACTS, NSTC and MESTI will be final.

10. CONTACT DETAILS:

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