BioInnovate Africa Programme Phase II

Second call for concept notes for sustainable bioinnovations towards value addition and agro/bioprocessing for smallholder farmers and communities in eastern Africa

Date of Issue: 2nd November 2017
Closing date: 2nd February 2018

Summary:

Grant categories: Category 1 - developing and piloting economically viable and innovative biobased technologies and products; Category 2 – incubating biobased technology business; and Category 3 – developing innovation-driven bioeconomy strategy.
Thematic focus areas: (a) Value addition to agroproduce; (b) agro/biowaste conversion; (c) bioinnovation policy analysis and development.
Eligible applicants: Scientists, researchers, innovators or entrepreneurs resident in the eastern African countries of Burundi, Ethiopia, Kenya, Rwanda, Tanzania and Uganda and who are not current recipients of a BioInnovate Africa project grant.
Partners per project: Minimum 3 and maximum 5 from at least three (3) of the eligible countries.
Grant period: Up to 3 years (2018–2021)
Grant amount per project: US$ 750,000 for Category 1; US$ 250,000 for Category 2; and US$ 500,000 for Category 3.
Total budgetary allocation: US$ 3.5 million
Call deadline: 2nd February 2018.
Shortlist of finalists: Expected last week of March 2018.
Final selection and publication of the award decisions: Last week of June 2018.

1.0 Background

The Bioresources Innovations Network for Eastern Africa Development (BioInnovate Africa) Programme is a regional initiative established in 2010 with support from the Swedish International Development Cooperation Agency (Sida). It assists countries in eastern Africa to benefit from the revolutionary advances in biosciences, by converting biobased research ideas and technologies into innovations that improve people's lives. The Programme is based at the International Centre of Insect Physiology and Ecology (*icipe*) in Nairobi, Kenya, and operates in six eastern African countries, namely **Burundi, Ethiopia, Kenya, Rwanda, Tanzania** and **Uganda**.

BioInnovate Africa fosters the development of an innovation-driven bioeconomy in eastern Africa—using scientific research and knowledge—to add value to renewable bioresources, thereby creating new economic opportunities and social sustainability. In this respect, the Programme, in cooperation with the New Partnership for Africa's Development (NEPAD) Planning and Coordinating Agency, councils, commissions and ministries of science, technology and innovation in eastern Africa and other actors in the bioscience innovation ecosystem, contributes to regional, continental and global development agendas of ensuring food and nutrition security and creating wealth through innovation[1].

[1] These priorities are set out in the Science, Technology and Innovation Strategy for Africa (STISA-2024), and address Sustainable Development Goals 2 and 9, as well as the African Union Agenda 2063.

2.0 Desired outcome and impact

The desired impact of BioInnovate Africa Programme is improved productivity (and hence living standards) of smallholder farmers and communities in eastern Africa through value addition and agro/bioprocessing that is competitive and environmentally sustainable. The main desired outcome of the Programme is increased capacity of scientists, researchers and innovators in eastern Africa to link innovative biobased research ideas and technologies to business and the market.

3.0 Target beneficiaries[2]

Scientists, researchers, innovators or entrepreneurs resident in any of the six eastern African countries, namely **Burundi, Ethiopia, Kenya, Rwanda, Tanzania** and **Uganda** are the target beneficiaries and are eligible to apply for these grants[3]. Applicants are individuals who must be formally affiliated with a university, public research organisation or private firm based in the region, e.g. as a full-time employee, and should not be current recipients of a BioInnovate Africa project grant. For this Call, private firms include legally registered smallholder farmer or community organisations or groups. For purposes of promoting local and regional ownership, scientists and researchers from international research centres and organisations in the region may apply only as co-applicants and NOT as lead applicants. Scientists and researchers from other parts of Africa and other organisations around the world may also participate in this Call, but only as collaborators in a project. Collaborators should not be listed as co-applicants, i.e. as a part of the core team applying for the grant. They should only be described in the proposal, and their role and contribution to the project should be clear. Postgraduate students who are already registered in local universities in the region for master's degree or PhD (and have sources of funds to support their tuition fees) can be attached to the project team, but not as co-applicants.

4.0 Thematic areas

a. Value addition to agroproduce

This includes improving food and beverages, as well as preparing novel industrial green chemicals and biofuels, or developing diagnostics tools, but excluding drug trials. It also includes new ways of producing feed for livestock and fish, and using insects for food. Emphasis is placed on value addition to crops of great importance to smallholder farmers and communities (both for domestic consumption and for marketing) at regional and global levels.

b. Agro/biowaste conversion

This involves conversion of agro/biowaste and other feedstock into useful renewable products or services, including using insects as biowaste converters, product recovery from solid waste, wastewater, and wastewater treatment and reuse. Other useful products may include improved feed from waste, bioprocessing reagents with selective catalysts/enzymes, or safe green chemicals, as well as the development of community-based biorefineries that also support food production.

c. Bioinnovation policy analysis and development

This involves background policy studies and analyses, stakeholder consultations, production of policy briefs, and implementation of actions leading to the development of an innovation-driven bioeconomy strategy for eastern African states. The strategy should provide a clear and shared vision for an eastern African innovation-

[2] Applications involving partners from Burundi, Ethiopia and Rwanda are highly encouraged.
[3] Female scientists and innovators are highly encouraged to apply.

driven bioeconomy and assess the opportunities for its development (including possible policy incentives), and actors and their roles in furthering the objectives of the strategy.

5.0 Category of grants, grant size, and duration

Total funding of approximately US$ 3.5 million is made available for this Call for a period of three years. The funds are allocated in three categories of grants as follows:

a. Category 1 Grants: To develop and pilot innovative and economically viable biobased technologies or products (US$ 2.25 million)

This grant category supports the development of new or improved biobased technologies in any of the Call thematic areas (i.e. value addition to agroproduce and agro/biowaste conversion). This includes developing prototypes, products, production, and delivery systems, and piloting or demonstrating technologies that show promising prospects for business and the market. Policy, technoeconomic and market analyses should be an integral part of the project activities, in order to assess the likelihood of success, market penetration and uptake.

Teams intending to apply for this category of grant must comprise researchers, scientists or innovators from a university or public research organisation, and at least one private sector firm or group of firms **(please refer to section 9.2(e) below for details on team composition)**. Where applicable, the team may also include non-governmental organisations and/or smallholder farmer groups that are legally registered in one of the eligible countries. The private sector partner(s) in the team must commit to, and be involved in, the design of the project and in taking the technology or product further towards commercialisation, e.g. through direct use of the technology in its line of production, or production and marketing of the product.

Each project under this category will receive a grant of up to US$ 750,000 for a maximum period of three years.

b. Category 2 Grants: For biobased technology business incubation (US$ 750,000)

This grant category supports professional biobased technology business incubation in any of the Call thematic areas (i.e. value addition to agroproduce and agro/biowaste conversion). It supports creation of spinoffs or startup enterprises based on innovative technologies or products that have passed proof-of-concept and have successfully undergone piloting or testing. The business incubation process to be supported through the grant involves developing inclusive business models, value chain and market feasibility studies, analyses and testing, business and financial support, assistance in networking with various partners along the value chain, skills training (business and entrepreneurship), branding, licensing and registration (including intellectual property management), coaching and/or mentorship, business plan development, and where necessary, minor product refinements/reformulations and pilot production. The result of the incubation process should, as much as possible, be the establishment of a fully operational and formally registered enterprise that can attract local and foreign investment based on the product's potential for being used or disseminated at a commercial scale.

Teams intending to apply for this category of grant should include at least one biobased business idea bearer (founder) from a university, public research institute or private sector firm **(please refer to section 9.2(e) below for details on team composition)**. The idea bearer will be fully engaged during the incubation phase of the enterprise, but may not necessarily be at the forefront of running the business after its establishment. In any case, they remain vital in providing the required scientific and technical knowledge and support. Further, there may be more than one idea bearer from the different BioInnovate Africa countries, e.g. scientists who have worked on a regional project and through collaboration, have developed a technology or product that now needs to be incubated into a business at a regional scale. A technology business incubator in one or more of the BioInnovate Africa countries should also be part of the team, provided it has adequate business incubation processes, facilities, personnel/expertise and there is a commitment to continue operating the business incubator after BioInnovate Africa support is ended.

Each project under this category will receive a grant of up to US$ 250,000 for a maximum period of three years.

c. *Category 3 Grants*: For developing a regional innovation-driven bioeconomy strategy (US$ 500,000)

This grant category supports the development of an eastern Africa regional innovation-driven bioeconomy strategy. It involves background policy studies and analyses, stakeholder consultations, production of policy briefs, and implementation of actions leading to the development of an innovation-driven bioeconomy policy and strategy for eastern African states. The strategy should provide a clear, shared vision for an eastern African innovation-driven bioeconomy and assess the opportunities for its development, including possible policy incentives, and actors and their roles in furthering the objectives of the strategy. Through its process, the successful project will prepare the ground in terms of enhancing local and regional ownership. To this end, developing the strategy should be a consultative and learning-oriented process. It should involve stakeholder consultations within the BioInnovate Africa target countries and draw from experiences abroad that have a high likelihood for positive impact on productivity and wellbeing of smallholder farmers and other communities in the bioeconomy in eastern Africa.

Applicants for this grant category should be policy-oriented organisations in the eligible countries. These include councils, commissions or ministries of science, technology and innovation, policy research institutes, research and innovation funding agencies, private sector foundations or business associations, and university scientists **(please refer to section 9.2(e) below for details on team composition)**.

One project under this category will receive a grant of up to US$ 500,000 for a maximum period of three years

Note that only one application can be made per grant category. The BioInnovate Africa Programme Advisory Committee (PAC) reserves the right to disqualify an applicant who makes more than one application in the same category of grant. However, an applicant can apply in the different categories of grant (1, 2 or 3). If an applicant is a Project Leader in one category of grant, then he/she cannot lead a project in the other grant category.

6.0 Gender consideration

Teams must ensure that their proposed project is gender responsive. The proposal should describe how the project will have an impact on both men and women, and indicate the strategic action for inclusiveness of the less represented gender. At the project level, the team should endeavour to ensure fair and equitable participation of men and women in project activities.

7.0 Matching fund support

The team must demonstrate that their host organisations support the proposed project, and are willing and committed to providing matching funds. These matching funds may be from social impact investors, relevant government organisations or from the private sector and donors. The mode of matching funds may be based on either provision of actual funds and or in-kind contribution of staff, infrastructure and other organisational support, and should be 25% over and above the total grant budget requested from BioInnovate Africa. A clear mechanism for matching funds is important.

8.0 How to apply

8.1 Application form

The team should make its application in English using the application form available here: http://bioinnovate-africa.org/wp-content/uploads/Template-for-Concept-Notes_call-2_2018v1.docx

8.2 Online submission

Complete the application (in English) and submit it via the online platform.
Do not include photos or images. Attach a one-page abridged version of CVs of the project leader and partners separately. The uploaded copy of the concept note should not exceed 7 pages, including references. Use Times New Roman font, size 12, single spacing, margins normal (2.54 cm for top, bottom, left and right margins), orientation portrait. Please, note that once submitted, no changes can be made to the concept note.

The deadline for receiving all concept notes is **Friday 2nd February 2018, no later than 17:00 hours, East African Time**. Access to the online submission system will be closed for applicants after the deadline.

8.3 Conditions for submission

By submitting the application, the team members agree to the following:

a. Comply with all rules for participating in this call process—as outlined in the Call and related documents—and that the decision of the BioInnovate Africa PAC is final.

b. If successful, that the name, contact information of team members, title and objectives of the proposal and total budget may be shared on the BioInnovate Africa web page. *N.B. The team should notify the BioInnovate Africa Programme Management Office about any proprietary and confidential business information that should not be shared.*

c. The names of external peer reviewers are confidential and will not be released to the team under any circumstances. However, feedback based on the comments of reviewers and the BioInnovate Africa PAC may be provided.

9.0 Evaluation criteria

9.1 General principle

Following a key principle in the Programme, the team must demonstrate a strong and realistic practical linkage between the innovative biobased research idea (or technology) to business and the market in any of the thematic areas (i.e. value addition to agroproduce and agro/biowaste conversion). The team should articulate what they see as the business potential of the innovative biobased research idea or technology. Additionally, the proposed project should state how smallholder farming communities and agro/bioprocessing firms in eastern Africa are likely to benefit from the results of the project (or if the results will advance the market development of the technological innovation).

9.2 Key features

The proposal should include the following key features, which will also be used as the basis for evaluation:

a. A regional approach

The team should address a challenge which is of significant regional or even global relevance. The team should demonstrate the added value of a regional, not merely multi-country approach, over a national approach.

b. Innovation

The team should describe the technology, product or service it is promoting, and the challenge it wants to address. They should explain what is innovative, new or unique about the technology, product or service they want to introduce. If it already exists, indicate any previous work done, i.e. how much is already known about

the technology, product or service, and if it has been successfully deployed elsewhere, especially in Africa. *The team should indicate whether the technology or product is patented or has other forms of intellectual property (IP) tied to it, and if there is possibility to use the IP for the proposed project*.

c. Linkage to business, uptake and potential for competitiveness

The team should explain how the technology, product or service links to the market and its potential to create business and market opportunities. The team should convincingly illustrate and/or show the extent to which they think their proposed project will be competitive and viable from a business and market perspective.

d. Contribution to the SDGs: economic, environmental and societal impact

The team should describe how the proposed project contributes to achieving the UN Sustainable Development Goals, the African Union Agenda 2063 and links to NEPAD's Science, Technology and Innovation Strategy for Africa 2024 (STISA-2024), as well as national priorities in the countries involved. They should explain the envisaged wider economic and societal impact in terms of creating new employment opportunities and increasing incomes. The positive impact on smallholder farmers and/or agro and bioprocess enterprises in the region should be well described. In certain cases, the proposed project outputs may have value as public goods, benefitting a community or society (such as environmental sustainability and overall wellbeing of the people, but with low profitability). In such cases, the team should demonstrate this potential societal impact and long-term financial sustainability.

e. Team qualification and composition

The team should ensure that it is multidisciplinary, comprising at least three (3) and not more than five (5) partners from at least three (3) eligible BioInnovate Africa countries (***applications involving partners from Burundi, Ethiopia and Rwanda are highly encouraged***). Team members should come from separate independent organisations with a shared interest in the proposed project. For clarity, a regional or multinational organisation with legally established bases in the eligible countries is taken as one and the same organisation. Team members exclude students. The team must meet the compositional requirements of the category of grant they are applying for. A well-qualified person with a good track record in the field of the bioinnovation must lead the team. **Women are encouraged to apply.** Private sector partners in the team should have a good entrepreneurial background and business acumen, and should show their role in the project and how they will use the technology, product or service. The project leader must be a resident of one of the BioInnovate Africa countries, and must be willing and able to allocate sufficient time to the project. He/she must also be affiliated to a university, public research organisation or recognised private sector firm. In addition, the specific roles, responsibilities and added value of each of the team members should be clearly explained. It is important that the team explains how they will be coordinated, to ensure smooth implementation of the project.

10.0 Next steps

When the concept notes are received, they will automatically be assigned registration numbers. The BioInnovate Africa Programme Management Office will screen the concept notes for completeness and eligibility requirements. Incomplete concept notes and those that fail the eligibility check will be disqualified at this stage. An independent panel of experts and the BioInnovate Africa PAC will evaluate those that pass the screening. The PAC will convene at the end of March 2018 to make a short list of proposals that should proceed to full proposal development. Project teams will be notified if they have been shortlisted or not. Shortlisted teams will be invited to proceed to the next stage of developing their concept notes into full proposals at the beginning of April 2018. A full proposal development workshop and information session will be offered to the shortlisted teams (team leaders only) in mid-April 2018. Independent experts will review each full proposal developed. Afterwards, the PAC, using the experts' comments, will meet to review and make a final selection of successful proposals towards the end of June 2018. Initial disbursement of funds to successful projects will be made in August 2018.

11.0 Further information

For more information about the BioInnovate Africa Programme, and this Call, please visit our website: http://bioinnovate-africa.org or contact the Programme Management Office through bioinnovate@icipe.org or call +254 20 8632433 between 0830 h and 1700 h, Monday to Friday.