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## List of Acronyms

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<th>Acronym</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>AU</td>
<td>African Union</td>
</tr>
<tr>
<td>AWARD</td>
<td>Africa Women in Agricultural Research and Development</td>
</tr>
<tr>
<td>CEDAW</td>
<td>Convention on the Elimination of all forms of Discrimination against Women</td>
</tr>
<tr>
<td>CGIAR</td>
<td>The Consultative Group on Agricultural Research</td>
</tr>
<tr>
<td>EAC</td>
<td>East African Community</td>
</tr>
<tr>
<td>DRC</td>
<td>Democratic Republic of Congo</td>
</tr>
<tr>
<td>FAO</td>
<td>Food and Agriculture Organization</td>
</tr>
<tr>
<td>GAP</td>
<td>Gender Action Plan</td>
</tr>
<tr>
<td>GFP</td>
<td>Gender Focal Point</td>
</tr>
<tr>
<td>icipe</td>
<td>International Centre of Insect Physiology and Ecology</td>
</tr>
<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
</tr>
<tr>
<td>MDGs</td>
<td>Millennium Development Goals</td>
</tr>
<tr>
<td>OECD</td>
<td>Organization for Economic Cooperation and Development (EU)</td>
</tr>
<tr>
<td>SDGs</td>
<td>Sustainable Development Goals</td>
</tr>
<tr>
<td>Sida</td>
<td>Swedish International Development Cooperation Agency</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
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</table>
Executive Summary

BioInnovate Africa supports biological based research outputs that benefit households and businesses in eight eastern African countries, namely Burundi, Ethiopia, Democratic Republic of the Congo (DRC), Kenya, Rwanda, South Sudan, Tanzania, and Uganda. People in these countries rely predominantly on raw biological resources for their livelihoods. However, rapidly growing population and high rate of urbanization as well as the negative impacts of climate change are exerting enormous pressure on the biological resources. Therefore, development of innovative technologies to improve agricultural production are of necessity. These technologies ought to enhance both men and women’s contribution to food production and food security.

Addressing gender inequalities is one of the United Nations Sustainable Development Goals 2030. Integrating gender in science and innovation programmes like BioInnovate Africa, is important for achieving agricultural productivity, and implementing innovations in the bioeconomy that transform food systems and alleviate poverty.

This Gender Strategy enables BioInnovate Africa to integrate gender considerations in all aspects of its activities. Specifically, the strategy lays out mechanisms for enhancing the gender-responsive internal culture of BioInnovate Africa; enhancing the capacity of BioInnovate Africa staff on gender-responsive design, planning, implementation, and reporting; and improving the performance of BioInnovate Africa projects in addressing gender issues in their projects.
Preface

BioInnovate Africa is a regional science and innovation-driven programme that is supported by the Swedish International Development Cooperation Agency (Sida) and implemented by the International Centre of Insect Physiology and Ecology (icipe) in Nairobi, Kenya. It supports scientists in Eastern Africa to link biological based research ideas, inventions and technologies to businesses and the market.

BioInnovate Africa recognises that Africa has a rich biological diversity and women play a critical role in agriculture as well as custodians of biological resources. However, the challenges they face are different from those of men. Hence, the consideration of gender issues in innovation projects is key as men and women play specific roles with respect to decisions on conservation and use of biological resources, farm inputs and marketing of produce. Gender and unequal power relations between men and women influence their interactions within households, communities, markets, and their livelihoods. These gender relations determine how men and women access to programme interventions and benefits that are derived from them.

This Gender Strategy enables BioInnovate Africa to integrate gender considerations in its programme cycle, including, program implementation, monitoring and evaluation. This gender strategy affirms BioInnovate Africa’s commitment to gender equality as an important pathway towards poverty alleviation and improved livelihoods, including food security.

The contribution of BioInnovate Africa and icipe staff as well as technical support provided by Prof Salome Bukach to the development of this strategy is gratefully acknowledged. This gender strategy is a call to action for BioInnovate Africa and her partners to provide the necessary support towards realisation of gender integration in biologically based innovation initiatives.
1. Introduction

Bioeconomy is considered a key driver for the transformation of biobased sectors for sustainable economic growth and development in the world and has attracted global attention including that of the East African Community (EAC) Partner States. This has led to the formulation of The East African Regional Bioeconomy Strategy 2021/22-2031/32 with the goal of promoting food security and sustainable agriculture, health and wellbeing, sustainable energy, and industrialisation in the region. One of the tenets of the bioeconomy is that scientific research, and knowledge, can be applied not only to produce food, feed, fibre and fuel but also a wide range of agro-industrial and value-added products. It also builds value around local bioresources, maximising the use of all parts of primary produce and their products. Bioeconomy has the potential of leading to diversified sources for sustainable growth and of providing jobs for youth, men, and women. These opportunities contribute to icipe and BioInnovate Africa’s overall goal of increased household incomes and a sustainable use of biological resources for the people in eastern Africa. The consideration of gender aspects in all bioeconomy programs, projects and activities could contribute to reduce gender inequalities and to help empower men and women beneficiaries.

A consideration of gender issues in innovation projects is key as men and women play specific roles with respect to decisions on conservation and use of biological resources, farm inputs and marketing of produce. Africa has a rich biological diversity and women are playing a critical role in agriculture and as custodians of biological resources. Bioeconomy has an opportunity to help smallholder farmers become more resilient, adapt better to climatic changes as they practice climate smart farming, as well as utilize bioenergy and bio-based products.

Studies have shown that increased focus on gender equality in production systems can transform agricultural livelihoods and improve development outcomes. Similarly, gender inclusiveness in science, knowledge production and innovation has the potential to promote representativeness of a critical mass of men, women and youth who will drive the agenda of bioeconomy forward. Hence the critical role that gender integration plays in implementing bioeconomy projects by icipe and the BioInnovate Africa Programme.

The agricultural sector is the most important source of employment for women in rural areas in most developing countries although they have less access to resources in terms of assets, inputs, land, and technology. Therefore, developing innovative technologies targeting the needs and challenges of women would improve their productivity. Howland et al., note that women have been forgotten or ignored in agricultural policies and are often poorly involved in projects. Promoting gender equality is an important tenet of smart development and programs have greater impacts when gender considerations are integrated into their design and implementation. With the rapid population growth, urbanization and climatic changes, adoption of new innovative approaches for regional and national response that are founded on gender-equality, inclusivity and sustainability are essential to enhance food security.
Gender inequality often limits women’s ability to adapt to the impacts of climate change. Women are more vulnerable to climate change because they are highly dependent on local resources for their livelihoods. Therefore, there is need to prioritize gender issues in both adaptation and mitigation strategies. Women’s vulnerability is further exacerbated by viewing them as victims, rather than key actors who have critical knowledge that could be effective in risk reduction and adaptation. Within development, women remain under-represented in science and conservation decision-making. Gender inequalities have been identified as one of the major factors holding back improvements of agricultural productivity and perpetuating poverty and hunger. Gender plays a critical role in ensuring inclusive access of technologies and the benefits thereof to women, men, and youth.
2. BioInnovate Africa Phase III

BioInnovate Africa was established in 2010 and is a regional science and innovation-driven initiative that is supported by the Swedish International Development Cooperation Agency (Sida) and implemented by the International Centre of Insect Physiology and Ecology (icipe) in Nairobi, Kenya. The initiative supports scientists in Eastern Africa to link biological based research ideas, inventions, and technologies to businesses and the market. Scientists work collaboratively in a regional context, and involve interdisciplinary teams from academia, industry, and government to co-develop solutions that address the region’s development priorities. While funding biological based innovation projects remains the core activity of BioInnovate Africa, the initiative also supports development of policies and strategies that foster a sustainable bioeconomy in Eastern Africa. The beneficiaries of BioInnovate Africa are scientists and researchers working in universities, research institutes, private sector companies as well as smallholder farmers and communities in Burundi, Ethiopia, Democratic Republic of the Congo (DRC), Kenya, Rwanda, South Sudan, Tanzania, and Uganda.

Sida and icipe signed a five-year agreement on 21 March 2022 to implement BioInnovate Africa phase III. Phase III builds on the successes of phases I and II, with the aim of building capacity of Eastern African scientists to move innovative biologically based research ideas, inventions, and technologies closer to the market and deployment for societal use. Value addition to biological materials, including converting biological waste into economically useful substances, and conserving biodiversity are the main activities supported by the programme. These activities foster the development of a sustainable bioeconomy in Eastern Africa, a growth pathway that is inclusive, reduces carbon emissions and biodiversity loss, and enables the region to adapt to climate change.

BioInnovate Africa Phase III is guided by the following principles:

- Innovation that demonstrates clear environmental, health, social and economic benefits to society,
- Environmental sustainability with a goal towards reduced carbon emissions, biodiversity conservation and improved ecosystem services,
- Regional integration that encourages mobility of scientists, and knowledge sharing, and create opportunities for investment and trade,
- Gender mainstreaming that ensures research and innovation activities are sensitive about and respond to specific needs of women and men, including gender parity and equity.

BioInnovate Africa supports experimentation of novel ideas and products and promotes incubation and business model innovation, which are essential and integral to the innovation process. It aims to support efforts that contribute to diversifying sources of growth and employment by linking primary producers to agro/bioprocessing and to new market opportunities, especially for women and youth in small-holder farming communities in the region that rely primarily on biological resources for their livelihoods. Innovating through biological resources (bioeconomy) is unarguably one of the surest ways of providing alternative carbon
neutral solutions to the existing patterns of unsustainable production and consumption and heeds the Intergovernmental Panel on Climate Change (IPCC)’s calls to action to reduce carbon emissions and save the world from further warming. 6

The importance of gender mainstreaming is explicitly articulated in global and continental policy documents including national policy documents of the target BioInnovate countries. BioInnovate Africa’s contributions are aligned to Goal 5 of Sustainable Development Goals (SDGs) 2030 “Achieve gender equality and empower all women and girls.”7 Additionally, BioInnovate Africa’s contribution is aligned with the aspirations of African Union Agenda 2063, that aims to have “An Africa whose development is people driven, relying on the potential offered by African people, especially its women and youth, and caring for children”,8 the Science, Technology, and Innovation Strategy for Africa 2024,9 the African Union Green Recovery Action Plan 2021-2027, and other related regional and continental development frameworks that promote smart economic growth and social development through sustainable industrialization. The eight BioInnovate Africa target countries also recognized the need for gender mainstreaming and have ratified and incorporated into national law international agreements and protocols, including the Protocol that was adopted on 11 July 2003 in Maputo, the Beijing Declaration and Platform for Action, East Africa Gender strategy among others. While these efforts are commendable for demonstrating their commitments to promotion of gender equality in different sectors, more concerted efforts are required.

It is not in doubt that men and women have important roles to play in BioInnovate Africa Phase III thematic areas. Understanding diverse roles and constraints experienced by different gender that prevent them from engaging in innovation, gender responsive interventions are paramount. Even more important is to ensure that new economic opportunities do not contribute to gender inequalities and inequities, if women have no control over the income earned through these innovations or lack access to newly established markets.10 Gender mainstreaming has been identified and accepted as a strategy for creating awareness about gender needs and to eventually contribute to achieving gender equity. The gender analysis conducted in 2017 on the BioInnovate Phase I and II identified gaps in program implementation and made suggestions on areas to strengthen gender integration. The development of a gender strategy and a gender responsive action plan to guide gender integration in BioInnovate Africa phase III is an important step towards ensuring that the identified gaps are addressed to enable the program effectively and inclusively translate research outputs to meet end-user needs, and benefits women, youth, and men equally.

The BioInnovate Africa Phase III gender strategy is anchored within the broader icipe Gender Policy, which provides the frame that supports the implementation of this BioInnovate Africa gender strategy. This gender strategy focuses on systematically integrating a gender transformative research agenda in BioInnovate Africa programme for more gender equitable outcomes. This will entail establishing a mechanism for integrating gender considerations in all
BioInnovate Africa activities. Through implementation of evidence-based recommendations from the gender analysis of 2017 and the current gender analysis (detailed in the BioInnovate Africa Phase III gender analysis Report), three key objectives of the BioInnovate Africa gender strategy will be pursued.

The main objectives of the strategy are to:
1. Enhance a gender-responsive internal culture within the BioInnovate Africa Programme,
2. Enhance the capacity of BioInnovate Africa staff on gender-responsive planning and implementation,
3. Improve the performance of projects in gender-responsive planning and implementation.
3. BioInnovate Africa Gender Strategy

The BioInnovate Africa’s gender strategy includes two components:

• Evidence to inform recommendations for mainstreaming gender into BioInnovate Africa programme and supported projects,
• Strategies and actions to enhance gender responsiveness of the programme and supported projects.

3.1 Evidence to inform gender strategy recommendations

Recognising the importance of gender integration in the BioInnovate Africa programme, a gender analysis (Annex 1 to this document) to review various documents and identify some gaps was undertaken. These gender gaps warrant a gender strategy to guide BioInnovate Africa in mainstreaming gender in all its program process and in the projects that have been funded. The strategy is guided by the chain of gender integration approaches that seeks to move the programme from being gender blind to being gender sensitive and become gender responsive as it advances towards gender transformative approaches in programming, planning and implementation.

3.2 Strategies for mainstreaming gender in BioInnovate Africa

The strategies to mainstream gender in the in BioInnovate Africa programme is informed by the results of the gender analysis and literature review. Annex Table 1 summarizes the strategies.

Objective 1

Enhance the gender-responsive internal culture of BioInnovate Africa

Objective 1 is critical to the overall governance and execution of the gender mainstreaming in the programme hence the several interventions listed. Integrating gender equity in BioInnovate Africa strategies, plans and project cycle will be achieved by ensuring gender policies are engrained in the internal culture of BioInnovate Africa. The goal is to create an organizational culture where people of all genders, ages, religions, and abilities, feel welcome, supported, and valued and that all staff members understand and value the principles of mainstreaming gender into all BioInnovate Africa activities. This is based on the acknowledgement that women, men and youth who are targeted as final beneficiaries face diverse needs and challenges in implementing innovation projects. To enhance the gender-responsive in the internal culture of BioInnovate Africa, several interventions are important to be undertaken:

• Implement gender parity in the workplace and in decision-making of boards of BioInnovate Africa,
• Sensitize old and new project staff on the icipe gender policy and the BioInnovate Africa gender strategy,
• Develop and include performance indicators for gender responsive planning and implementation in the senior management and staff contracts, performance assessments and evaluation procedures,
• Adopt work-life balance policies to ensure retention of men and women staff (flexible working arrangements),
• Identify a qualified and dedicated gender focal person for the BioInnovate Africa program,
• Budget for and allocate finances for gender integration activities of the
BioInnovate Africa Program,

- Identify and partner with relevant organizations like the Consultative Group on Agricultural Research (CGIAR) GENDER (Generating Evidence and New Directions for Equitable Results) Platform, and the African Women in Agricultural Research and Development (AWARD), Program for mentorship, training and on gender-responsive approaches for project teams,

Objective 2

Enhance the capacity of BioInnovate Africa programme and staff on gender-responsive design, planning, implementation, and reporting

While gender consideration is a critical factor in achieving equality and empowerment of women, mainstreaming it in the programme and implementing it in projects requires a well capacitated workforce. Review of past programme reports revealed gender gaps in the design of implementing projects and in implementation of activities. This could be because the staff are not well versed with gender issues and how to mainstream them in projects. The four recommendations for Objective 2 seek to build capacity of BioInnovate Africa programme staff and partner projects to mainstream gender in their respective areas of work. This will require the programme to:

- Conduct a gender capacity assessment of staff and fellows (program partners),
- Identify and build staff capacity on gender issues in diverse scientific research and technical disciplines or areas relevant to BioInnovate Africa,
- Develop a gender training plan to enable continuous trainings on gender and gender-responsive action for Program Management Officers (PMO), staff and fellows,
- Identify and showcase successful women scientists or innovations as role models for girls to embark into STEM,
- Periodically evaluate gender responsiveness of partner proposals and projects,
- Develop gender markers and indicators to support gender sensitive and responsive, planning, monitoring and evaluation of BioInnovate Africa programme and partner projects.

Objective 3

Improve the performance of BioInnovate Africa projects in addressing gender-responsive designing, planning, implementation, and reporting

Gender gaps exist in the design, planning, implementation, and reporting of projects. This may continue leading to gaps in gender-responsive project implementation and outcomes. This strategic objective will help address these gaps by executing these activities:

- Sensitize and train fellows and Implementing Partners on the BioInnovate Africa Gender strategy and gender sensitive and responsive research, planning and implementation of projects,
- Promote fellows and implementing partner's achievements on gender responsive research, technologies, and innovation in the BioInnovate Africa website,
- Develop and report on gender responsive indicators in mid and annual reviews and other reports.
4. Expected outputs and outcomes of gender mainstreaming in BioInnovate Africa

Gender mainstreaming under BioInnovate Africa is expected to lead to the following anticipated outputs and outcomes. Outputs: Examples of concrete outputs expected from BioInnovate Africa gender strategy include:

- Improved capacities of BioInnovate Africa staff, fellows and implementing partners to formulate and implement gender sensitive and responsive programs, project, technologies, and innovations,
- Enhanced gender sensitive and responsive monitoring and evaluation of BioInnovate Africa program and projects,
- Enhanced gender sensitive and responsive research, technologies and innovation taking into consideration the specific needs of men, women, and youth.
- The above outputs will lead to anticipated programme outcomes as follows:
  - Increase in number of BioInnovate Africa Programme innovations addressing the needs of men, women, and youth,
  - Increase in number of women and youth adopting and benefiting from the BioInnovate Africa innovations.
5. Bibliography


6. Annexes

Annex 1: Gender strategy: Interventions, activities, and responsible parties

<table>
<thead>
<tr>
<th>Interventions</th>
<th>Activities</th>
<th>Responsible Parties</th>
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</table>
| **Objective 1: Enhance a gender-responsive internal culture within BioInnovate Africa** | • Ensure gender parity in decision-making of boards at BioInnovate Africa.  
• Sensitize old and new project staff on the icipe gender policy and the BioInnovate Africa gender strategy.  
• Develop and include performance indicators for gender responsive planning and implementation in the senior management and staff contracts, performance assessments and evaluation procedures.  
• Adopt work-life balance polices to ensure retention of men and women staff (flexible working arrangements).  
• Identify a qualified and dedicated gender focal person for the BioInnovate Africa programme.  
• Budget for and allocate finances for gender integration and training activities of the BioInnovate Africa Programme.  
• Identify and partner with relevant organizations like the CGIAR GENDER (Generating Evidence and New Directions for Equitable Results) Platform, and the African Women in Agricultural Research and Development (AWARD) Program for mentorship, training, resources, tools and on gender-responsive approaches. | • PAC  
• PMO  
• Human Resource |
<table>
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<tr>
<th>Interventions</th>
<th>Activities</th>
<th>Responsible Parties</th>
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</table>
| 2. Mainstream Gender issues throughout the program                           | • Develop gender markers and other templates to support gender sensitive and responsive assessment of the BioInnovate Africa program and partner projects.  
• Review and redesign the programme outcomes, outputs, and activities to address the different needs and priorities of men, women, and youth.  
• Review and revise the logical framework to include gender responsive indicators, and targets.  
• Initiate a baseline study and monitor gender equality and women’s empowerment results.  
• Integrate sex and gender-disaggregated variables in the baseline, M&E, and impact assessment tools.  
• Undertake Project M&E using the developed gender responsive M&E framework/template/system. | • PMO  
• Gender Focal Person  
• Program Manager |
| Objective 2: Enhance the capacity of BioInnovate Africa Staff and Fellows on gender-responsive, design, planning, implementation, and reporting | 3. Build capacity of BioInnovate Africa programme staff and fellows to mainstream gender in their respective areas of work | • Conduct a gender capacity assessment of staff and fellows.  
• Identify and build staff capacity on gender issues in diverse scientific research and technical disciplines or areas relevant to BioInnovate Africa.  
• Develop a gender training plan to enable continuous trainings on gender and gender-responsive action for PMO, staff and fellows.  
• Identify and showcase successful women scientists or innovations as role models for girls to embark into STEM.  
• Periodically evaluate gender responsiveness of partner proposals and projects, | • PMO  
• Gender Focal person  
• BioInnovate Africa staff |
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<th>Interventions</th>
<th>Activities</th>
<th>Responsible Parties</th>
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| Objective 3: Improve the performance of projects in gender-responsive design, planning, implementation, and reporting | 4. Support Implementing partners and fellows to adopt gender-responsive approaches in project designing, planning, implementation, and reporting.  
• Sensitize and train Implementing Partners (IPs), researchers and postgraduate fellows on the BioInnovate Africa gender strategy and elements of gender sensitive and responsive planning and implementation.  
• Promote implementing partners and postgraduate fellows and their achievements on gender responsive activities in the BioInnovate Africa website.  
• Develop and report on gender responsive indicators in mid and annual reviews and other reports. | • PMO  
• Implementing partners  
• Fellows  
• Gender Focal Person  
• BioInnovate staff |
## Annex 2: Key gender concepts and definitions

| **Gender** | Refers to the socially and culturally determined ideas and practices of what it is to be male or female. One’s gender is, therefore, comprised of those cultural norms, roles, and attributes dictated by traditions. |
| **Gender Equity** | Denotes the equivalence in life outcomes for women and men, recognizing their different needs and interests, and requiring a redistribution of power and resources. To ensure fairness, measures are often needed to compensate for historical and social disadvantages. Equity leads to equality. |
| **Gender Equality** | Denotes women having the same opportunities in life as men, including the ability to participate in the public sphere and that social values, rights and responsibilities are equally shared, including equal access to resources and opportunities. |
| **Gender Balance** | Gender balance refers to the ration of women to men in any given situation. Gender balance is achieved when there are approximately equal numbers of men and women present or participating. This is sometimes also referred to as gender parity. |
| **Gender Analysis** | The systematic gathering and examination of information on gender differences and social relations to identify, understand, and redress inequities based on gender. |
| **Gender Roles** | These are the roles assigned to men and women, respectively, according to cultural norms and traditions. Most often, gender roles are not based on biological or physical imperatives, but rather result from stereotypes and presumptions about what men and women can and should do. Gender roles become problematic when a society assigns greater value to the roles of one gender – usually men’s. |
| **Gender Perspective or Gender Lens** | Using a “gender perspective” means approaching or examining an issue, paying particular attention to the potentially different ways that men and women are or might be impacted. This is also called using or looking through a “gender lens”. |
| **Disaggregation by Sex** | This refers to data collected form men and women respondents and statistics that are analysed in a way to show results for women and men separately. |
| **Gender Mainstreaming** | is the process of assessing the implications for women and men of any planned action, policy, or program, in all areas and at all levels before any decisions are made and throughout the whole process. It is a strategy for making women’s as well as men’s concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programs so that both women and men benefit, and inequality is not perpetuated. Gender mainstreaming is not a goal, but an approach for promoting gender equality. |
| **Source** | Gender mainstreaming in practice: A HANDBOOK, 2005, 2nd edition, UNDP Regional Centre for Europe and the CIS, Bratislava, Slovak Republic; Gender toolbox, Gender Mainstreaming, Sida 2015. |
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