



Policy Brief

Enhancing Sustainability through Agroecology in Ugandan Higher Education

Executive Summary

July 2025

Uganda, like many other countries in Africa, faces significant challenges in achieving food security and sustainable agricultural development. The country's population is projected to reach over 60 million by 2030, putting a strain on the already limited arable land and water resources. In this context, agroecology offers a promising approach to transforming Uganda's agricultural sector. This policy brief argues that agroecology, coupled with higher education, can play a crucial role in promoting sustainable agriculture practices, improving food security, and enhancing rural livelihoods.

The Case for Agroecology

Agroecology is an innovative approach to farming that emphasizes the importance of ecological principles, social justice, and equity in agricultural production. By mimicking natural ecosystems, agroecological systems can enhance biodiversity, improve soil health, reduce chemical use, and promote efficient water management. In Uganda 80% of the population's livelihoods rely on agriculture, and most at a small scale, agroecology offers an opportunity to boost food security, improve rural incomes, and protect the environment.



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Benefits of Agroecology in Uganda

- 1. Improved Food Security:** By promoting diversified farming systems that incorporate a variety of crops and livestock, agroecology can enhance crop yields, reduce postharvest losses, and improve access to nutritious food for Ugandan households.
- 2. Increased Rural Income:** Agroecological practices can increase farmers' incomes by reducing their reliance on external inputs (such as fertilizers and pesticides), improving market opportunities, and promoting the sale of value-added agricultural products.
- 3. Enhanced Biodiversity and Ecosystem Services:** By adopting agroecological approaches that prioritize ecological principles, Uganda can conserve its natural resources, promote pollination services, and maintain ecosystem health.
- 4. Climate Change Mitigation:** Agroecology can help reduce greenhouse gas emissions associated with agriculture by promoting the use of organic amendments, improving soil carbon sequestration, and enhancing water management efficiency.

The Role of Higher Education

Higher education plays a critical role in promoting agroecological practices in Uganda. At Mountains of the Moon University (MMU), through the School of Agriculture and Environmental Sciences, a new Agroecology Masters Program has been developed.

The program uses community and student farm case studies to provide students with hands-on training and research experiences in agroecology.

Through the program's trained staff and students and partnerships with other universities, a new generation of farmers, extension workers and researchers who are equipped to adopt sustainable agricultural practices can develop. Furthermore, higher education institutions such as MMU can facilitate the development of policies, extension services, and market systems that support agroecological transformation.

Yet to bolster this program and its impact, support from the local and federal government is important!



Recommendations

1. **Develop a National Agroecology Policy:** The Ugandan government should establish a national policy framework for promoting agroecology in agriculture.
2. **Establish Agroecology Training Centers:** Starting with MMU as a model, universities and extension services should develop training programs and centers to equip students and wider community members with hands-on experience in agroecological practices.
3. **Support Research and Development:** The government should provide funding for research projects that focus on the development of agroecological practices with and for community stakeholders, including the assessment of their economic, social, and environmental impacts.

Many of these strategies can be supported by MMU university lecturers and students!

Conclusion

Agroecology offers a promising approach to transforming Uganda's agricultural sector and promoting sustainable agriculture practices. By embracing agroecology and higher education, the country can improve food security, enhance rural livelihoods, and protect the environment. We recommend that the Ugandan government develop a national policy framework for agroecology, establish training centers, and support research and development activities to promote the widespread adoption of agroecological practices in Uganda.

Implementation Strategy

To ensure the successful implementation of agroecology in Uganda, a multi-stakeholder approach is essential. This includes:

1. **Stakeholder Engagement:** Engage farmers, extension agents, researchers, policymakers, and private sector stakeholders in the development and implementation of agroecological practices.
2. **Capacity Building:** Provide training and capacity-building programs for farmers, extension agents, and research institutions to enhance their understanding of agroecology and its application.
3. **Institutional Support:** Ensure that government ministries, universities, and other institutions provide support for the development of agroecological practices and policies.
4. **Resource Mobilization:** Secure funding from both domestic and international sources to support research, training, and extension activities.



ABOUT THIS POLICY BRIEF

This Policy Brief is part of a series aiming to inform policy-makers on the key results of the APPEAR-funded project “Strengthening of Higher Education, Research and Science Communication in Agroecology in the Rwenzori Region in Western Uganda | AER-Phase II”. The project was implemented from 2022 to 2025, led by the Mountains of the Moon University (MMU), in cooperation with University of Natural Resources and Life Sciences, Vienna (BOKU), Uganda Martyrs University, Nkozi and Sasakawa Africa Association.

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DISCLAIMER

The policy recommendations made do not necessarily reflect the views of the MMU or its partners.