

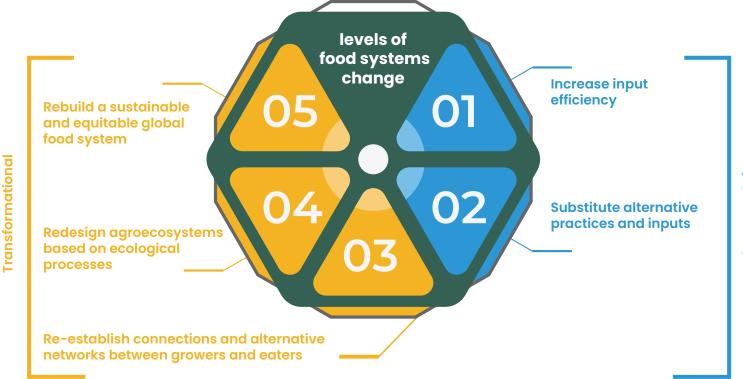


Eastern African Agriculture Context: Why Ecological Organic Agriculture?

Africa's food systems and agriculture face complex and interrelated challenges, requiring systemic solutions supported by an enabling policy environment for food systems transformation. Hunger and food insecurity are rising, and these issues are worsened by growing numbers of micronutrient deficiency and obesity-related health issues. Dwindling biodiversity and the impacts of climate change further threaten agricultural and food systems and require fundamental transformations. These transformations are essential in enhancing sustainability, resilience and increased production of quality and quantity of food under dramatically changing conditions.

The COVID-19 pandemic has painfully highlighted the poor resilience and equity in industrial food systems. Agroecology and organic farming increasingly take a whole food systems approach. The FAO Agroecology Criteria Tool distinguishes five levels of food systems change, the first two associated with incremental changes and the last three with transformational changes.

The Agroecology Criteria Tool + 10 elements of Agroecology





Human & Social Value



Responsible Governance



Co-creation of Knowledge



Diversity



Synergies



Resilience



Circular Economy



Culture & food Transitions



Recycle



Regulations



Efficiency

Using a typology developed for the African Union based on five EOA types, there are four (4) advanced EOA countries, eleven (11) active EOA countries, ten (10) developing EOA countries, twelve (12) infant EOA countries and eighteen (18) countries awaiting inspiration regarding Ecological Organic Agriculture. In West Africa, Benin, Mali, Nigeria, and Senegal have joined EOA Initiative. In Eastern Africa, Tanzania, Uganda, Ethiopia, Kenya and Rwanda have also joined the EOA Initiative.

Organic agriculture and agroecology provide systemic and evidence-based solutions to these interrelated challenges, resulting in increased sustainability, equity and resilience of food systems. This, however, requires a major shift in funding and public policies. Ecological Organic Agriculture (EOA) will put carbon into the soil, not the atmosphere; it will reduce poison use, reduce pollution, improve food quality and increase water use efficiency. Since the 2010 decision on Organic Agriculture of the African Union (AU) Heads of State, the EOA Initiative has been implemented to support small-scale farmers and improve African food security and sovereignty. Eastern Africa has more countries supporting Ecological Organic Agriculture (EOA) than any other region of Africa through the EOA Initiative, but there is still a long way to go.

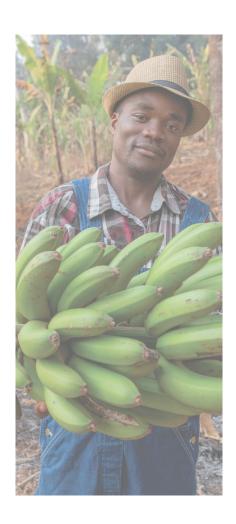
Several issues need to be addressed in Uganda's agricultural development, such as:



- Transport infrastructure for access to markets.
- Equitable land rights.
- Public procurement schemes for sustainably country produced foods.
- Payment for ecosystem services to farmers.
- Communities and entrepreneurs.
- Elimination of subsidies for synthetic fertilisers, pesticides, and hybrid seeds.
- Integrated seed systems value traditional varieties and breeds and seed exchange systems.
- Promotion of agroforestry.
- Strengthening of agroecological research and development as well as participatory extension services.
- Integration of agroecology in the country's climate change adaptation plan.
- Organic waste strategies take principles of the circular economy into account.
- Formalised inclusive multi-stakeholder processes for policy development on food system change.

EOA -I Uganda Policy Brie

The situation in Uganda: Food system and agricultural production



Agriculture contributes nearly half of the Ugandan GDP and 85% of export earnings, provides and employs most rural-based populations. It also provides most of the raw materials for agro-based industries. Uganda has suitable climate, land, water and forestry resources for agriculture. Farming is done by 3 million households, each cultivating less than 2.5 ha. Inorganic fertilisers for soil fertility improvement and agrochemicals for pest and disease control are rarely employed by smallholder farmers because they are generally unavailable and unaffordable. Farmers in Uganda largely use small-scale, and labour-intensive technologies and depend on rainfall distributed in two rainy seasons in most of the Country. The hand hoe is the main production tool. Roughly 10% of farmers use animal traction and 1.2% use tractors. Irrigated agriculture comprises 1.3% of total cultivated land; most smallholders depend on rainfed agriculture without adequate water management. This is especially concerning in light of increasing climate variability and soil degradation which lowers fields' water and nutrient retention.





10% of farmers use animal traction



1.2% of farmers use tractors

Agriculture is considered a leading sector for future economic growth and economic inclusion in the current National Development Plan. Nevertheless, despite having very favourable natural resource and climate conditions for the production of a wide variety of crops and livestock, the average Total Factor Productivity (TFP) growth—the difference between aggregate output growth and the growth of all inputs and factors of production that produced it-in Ugandan agriculture has been negative for the last two decades. This suggests that the Country is now getting less for similar or greater effort on balance.

While drought and pest issues likely have played a harmful role, other plausible explanations are a combination of the following:

- Weakening over time of the public institutional base for promoting agricultural productivity at the level of small farms.
- · Inefficiencies in public agricultural expenditures.
- Inadequate agricultural regulation and policies.
- Lack of farm assets for collateral.

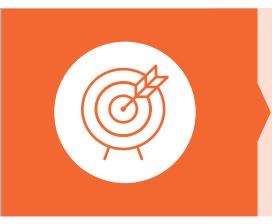
National agricultural output has grown at only 2% per annum over the last five years, compared to agricultural output growth of 3 to 5% in other EAC members and 3.3% per annum growth in Uganda's population over the same period. Food insecurity, poverty, and nutritional quality remain major challenges in rural areas of Uganda, and the prevalence of national food imports has increased in the last decade. One-shot stimuli to growth in the last decade have helped Ugandan agriculture and promoted significantly poverty alleviation, but likely will not be able to provide the same level of continued stimulus for new growth.

The World Bank (2018 Closing the Potential-Performance Divide in Ugandan Agriculture) identifies the three key agricultural development issues as:

- 1. Promoting stronger institutions and policies for agriculture transformation.
- 2. Choosing market-led and inclusive commercialisation through actions that permit benefiting from growing opportunities in value-addition and trade.
- 3. Increasing resilience in agroecosystems and rural livelihoods.

2%
Percantage National
Agricultural output has
grown per anum
last five years

3%-5%
Percantage other EAC
members growth is per



Given these desired requirements, it's imperative to move rapidly toward sustainable, resilient food systems that must be clear to all familiar with the challenges of food insecurity, climate change and malnutrition.

Organic certification

Although many farmers farm organically without certification, the development of the sector and access to highend markets with a price premium for organics requires attention to quality management, either through Participatory Guarantee Systems (PGS) or through an organic certification. UgoCert is used for organic production certification in Uganda, and this allows the produce to carry the "Kilimohai" logo for organic products. The UgoCert Certification Body considers the specific conditions for organic production in Uganda and also the stage of development of organic production in the country. UgoCert follows a product through the whole production chain until it is packed and labelled as organic. In May 2007, the East African Organic Products Standard (EAOPS) was launched after a consultative process, which started in 2005 by harmonising organic standards from Uganda and



Tanzania that existed in the East African region. Other external certifiers such as IMO, EcoCert, KRAV, Soil Association and Bio-Inspecta certify products, especially for export markets.



2007

Year East African Organic Products Standard (EAOPS) was launched.

2005

Year harmonization of organic standards from Uganda and Tanzania was initiated.

Elements of policy required to transition to sustainable food systems in Uganda

The National Organic Agricultural Movement of Uganda (NOGAMU) was established in 2001. Uganda has over 50,000 farm households certified as organic; for most of these, cash crops (such as coffee, cotton and tea) are the major sources of income. In this regard, commercial organic agriculture can be seen as a major employer or employment opportunity.

In the past, the Ugandan Government has emphasised high external input in agriculture and has supported this with Farm Input Subsidy Programmes. The recent adoption of the Ugandan National Organic Agriculture Policy (NOAP) needs to be followed up with funding for six elements:

- 1. Consumer education, targeting young mothers, on nutrition and the importance of fresh, organically-grown fruit, vegetables and dairy products.
- 2. Training of Extension Officers in Ecological Organic Agriculture (EOA) so that they can support organic farmers with advice and organic inputs where appropriate.
- 3. Capacity building for NOGAMU so that it can provide an efficient service to member farmers.
- 4. Support for quality management through Participatory Guarantee Systems (PGS) and support for organic certification through UgoCert.
- 5. Institution building for the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) to enable support for quality management and market development.
- 6. Funding for research into EOA, nutrition and quality management.

Each of these six interventions requires a line item in the Agricultural Budget and parallel support from the ministries of education and health; they should be monitored at least every three years, in line with the policy of the African Union and the EOA Initiative.



The research required to support EOA in Uganda should be based on best practices in other countries; long-term research has been carried out for over thirty years in Switzerland, Denmark and the United States of America (see <u>Auerbach</u>, 2020).

Long-term research has had a major impact on the production, processing, marketing and consumption of organic products worldwide, as shown by a Danish study through four research programmes at Aarhus University (which contributed to sales of organic produce increasing from US\$80 million in 1996 to US\$821 million in 2010), and this assisted many Danish farmers in expanding production and understanding the needs of the market. Danish policymakers took note and formulated more supportive organic farming policies. In the USA, the Rodale Institute in Pennsylvania carried out long-term research trials to show that OA can be economically competitive while benefiting the environment and consumers' health; they showed that organic crops outyield conventional crops in dry years. All three studies had close links with agricultural policy. However, the Danish and Swiss studies were more sympathetically received and resulted directly in positive changes to agricultural policies in those countries. (Organic Research Contributes to Sector Development and Good Organic Policy: the Danish, Swiss, American and African Case Studies, p.32).





Sales of organic produce in 2010

Thus, research and training should be targeted to support EOA in Uganda and should be integrated with agriculture, health and education policies. The EOA Initiative is now part of the Ugandan Development Strategy, and Uganda is seen as a leader in the East African Region with regard to EOA.

The African Union commissioned an assessment of policy interventions to mainstream EOA in Africa. This study developed a system of measuring progress in EOA based on whether 💆 the Country has an organic policy, a product standard, government support for the sector, well-organised farmers, private sector involvement and developed domestic and export markets for organic products. Based on these seven criteria, a typology ranging from Type 1 💆 (Advanced EOA sector) to Type 5 (Awaiting Inspiration) has been developed. Tanzania has 5 been evaluated as Type 1 (Advanced EOA Sector).



EOA-I member.

Projection: Geographic. Datum Hartesbeeshoek 1994.

Source: Surveyor General. Insert: ESRI Data & Maps.

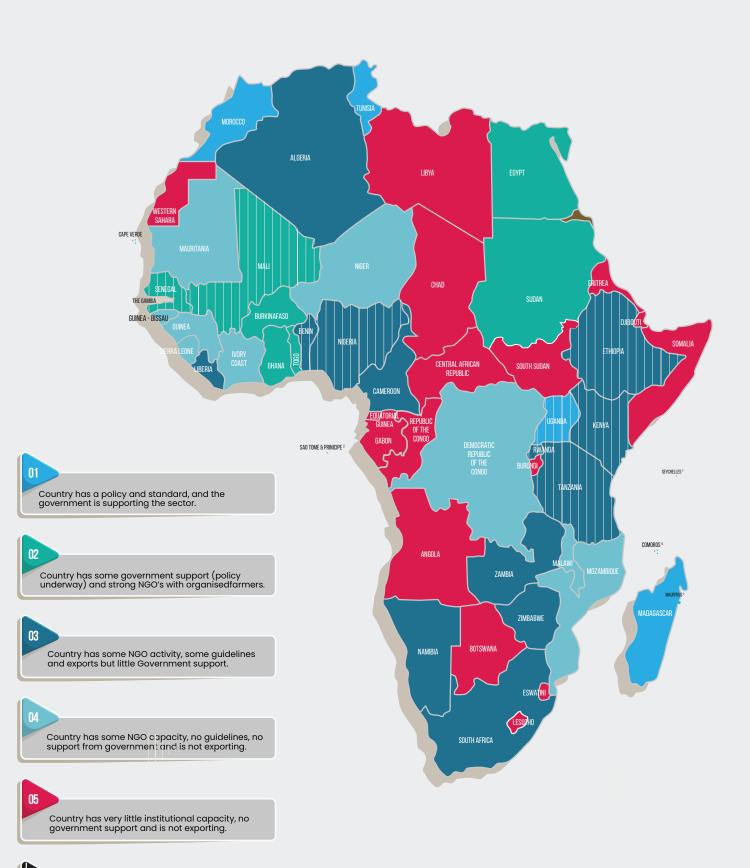


Figure 1: Ecological Organic Agriculture Status of the 55 Countries of Africa Source: Biological Systems Consulting & Research for the African Union Commission in 2020

Preliminary EOA Type (Type 1: Advanced EOA Country)

Uganda has a NOAM, a policy and standards, and the government is supporting the vibrant sector.

The monitoring and evaluation (M&E) framework is based on the five typologies developed for the assessment analysis study, using the following six criteria:

Monitoring and evaluation of sustainable food systems in Uganda





National Policy



Organic Regulations

The extent to which a national policy is in place for EOA and supported by a budgetary allocation.

The extent to which organic regulations have been promulgated and implemented.



National Standards & Certification





Government Support

The extent of government support to the organic sector.



Civil Society Involvement



Domestic & Export Markets

The degree to which civil society is involved in developing the EOA sector in the country.

The performance of the domestic and export EOA markets, respectively.



The African Union Heads of State agreed in 2010 that EOA should be supported, and each Country should monitor progress and report to the AU through CAADP Programme every three years using the M & E Framework.

Food system targets and a monitoring and evaluation system to meet them

Regarding the first criterion, the assessment requires the following process:

- I(a) An in-depth integrated assessment of general agriculture policies, programmes and plans has been performed to understand how they affect the competitiveness and production of the organic sector.
- 1(b) Objectives for government involvement in developing the EOA sector are clarified and formulated.All relevant stakeholders are involved in the development of policy, plans and programmes. Objectives can include increased income, environmental protection, biodiversity enhancement, smallholder competitiveness, human health, increased exports, and domestic growth.
- 1(c) One government ministry or agency is assigned a leading role in sector development, and organic desks are established in other relevant ministries and agencies.
- I(d) A national organic action plan or strategy is formulated and implemented. The Plan typically would include aspects of standards, regulations, market development, production issues, capacity-building and research. It should be correctly sequenced (logic) and should state measurable targets for the organic sector to help agencies and stakeholders focus their efforts.
- l(e) A country has formulated a national EOA policy based on participatory policy development with close interaction between the government and the sector. The government has actively supported the sector's organisation and its participation in the policy formulation process.
- 1(f) A country has formulated and promulgated EOA regulations.
- 1(g) A country has formulated implementation decrees and action plans for the EOA Policy's action.
- 1(h) **EOA is recognised and integrated into the main policies of the country,** e.g. agricultural policy, food, health, education policies, environmental, and poverty eradication policies.





Country should formulate a national EOA policy based on participatory policy development with close interaction between the Government and the sector.

They give organic agriculture a more respectable and credible image.

Improved access to export markets.

Development of the local market.

The development of mandatory regulations is considered to be the right policy response to develop the organic sector:

Regarding the second criterion (national certification and standards), the following is needed:

- 2(a) Standards are available.
- 2(b) A Participatory Guarantee System is in place but needs further development.
- 2(c) Governments should **facilitate access to certification services.** In some countries, especially where the private sector is weak, the Government could consider establishing a governmental certification service.

Indicator: Measure of government support for certification. A proxy may be the ease of access of farmers to certification (i.e. are certification requirements excluding some farmers?).

Regarding the third criterion (government support), the following is needed:

- 3(a)The existing EOA Strategy from NOGAMU should be used to develop a budget for EOA support.
- 3(b) Research and extension need to be strengthened in accordance with the Strategic Plan.

Regarding the fourth criterion (civil sector strength), the following is needed:

- 4(a) Mapping of civil society organisations must be performed & assessment of their capacity undertaken.
- 4(b) The Government should support the development of a well-organized sector through NOGAMU.

Regarding the fifth and sixth criteria (civil society involvement & markets), the following is needed:

- 5(a) Annual growth in an organic agricultural area (ha) must be measured and evaluated against the strategy.
- 5(b) Measure the change in the number of EOA producers (no.) and set targets for the next three years.
- 5(c)Determine annual growth in EOA earnings through export and domestically (currency).
- 5(d) Assess changes in civil society involvement in the organic sector.



Each Country needs to develop an EOA strategy, an EOA policy and a programme of action but should start with a programme of nutrition education in schools with EOA instruction.



The Regions of Africa

Like many country borders in Africa, the regions of Africa are subject to discussion, and several countries are involved with more than one region. In developing regional policies for EOA in Africa, the **Eastern Africa** region countries include Southern Sudan, Ethiopia, Kenya, Uganda, Tanzania, Rwanda and Burundi, as well as Somalia. In the **Northern Africa** region the ten countries are Mauritania, Western Sahara, Morocco, Algeria, Tunisia, Libya, Egypt and Sudan, as well as Eritrea and Djibouti.

The fifteen **West African** countries of ECOWAS are Benin, Burkina Faso, Cape Verde, The Gambia, Ghana, Guinea, Guinea-Bissau, Ivory Coast, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo. As several Central African countries are also in the East African Community (EAC), we include only the following eight countries in the **Central African** EOA Policy: Cameroon, Chad, Central African Republic, Congo Republic, the Democratic Republic of the Congo, Equatorial Guinea, Gabon and the island state, Sao Tome & Principe. Under the **Southern African** regional policy, we include Angola, Mozambique, Malawi, Zambia, Zimbabwe, Botswana, Namibia, Lesotho, Eswatini, South Africa, Madagascar, Seychelles, Mauritius and the Comoros Islands. In this way, each of the 55 countries of Africa is only included in one region for the purposes of this policy.



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