



Advancing Ecological Organic Agriculture (EOA) in Nigeria

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About the Mainstreaming Ecological Organic Agriculture Initiative

The Ecological Organic Agriculture Initiative (EOA-I)¹ is a continental initiative that holds promise for increasing the productivity of Africa's smallholder farms, with consequent positive impacts on food security. Garnering support and legitimacy for programs and initiatives run in Africa from continental bodies such as the African Union Commission (AUC), the New Partnership for Africa's Development (NEPAD), the United Nations Economic Commission for Africa (UNECA), the Regional Economic Commissions (RECs) as well as the relevant National governments could undoubtedly lead to ownership, high visibility, success, and sustainability of such programs and initiative. However, the process of engaging with these high-level bodies and governments is not straightforward. It requires strong champions who have established longstanding relationships both formal and informal with these bodies and governments to achieve the desired objectives. The African Technology Policy Studies Network (ATPS)² is one rare organization in Africa that has established working relationships and goodwill with these aforementioned bodies and governments for over 30 years. In most cases, ATPS provides human resource supports to these bodies in a win-win situation that has led to the development of trust and high integrity between ATPS and the continental bodies and governments. The EOA-I aims to transform and create sustainable food systems through promoting ecologically sound strategies and practices among diverse stakeholders in production, processing, marketing and policymaking, to safeguard the environment, improve livelihoods, alleviate poverty and guarantee food security. The overall goal of the initiative is to mainstream EOA into national agricultural production systems by 2025 in order to improve agricultural productivity, food security, access to markets and sustainable development in Africa.

¹ <https://biovisionafricatrust.org/ea-initiative/>

² <https://atpsnet.org/about-atps/>

About the African Technology Policy Studies Network (ATPS)

The African Technology Policy Studies Network (ATPS) is a trans-disciplinary network of researchers, policymakers, private sector actors and the civil society actors that promote the generation, dissemination, use and mastery of Science, Technology and Innovations (STI) for African development, environmental sustainability and global inclusion. ATPS has over 5000 network members and 3,000 stakeholders in over 51 countries in 5 continents with institutional partnerships worldwide. We implement our programs through members in national chapters established in 30 countries (27 in Africa and 3 Diaspora chapters in Australia, United States of America and the United Kingdom). In collaboration with like-minded institutions, ATPS provides platforms for regional and international research and knowledge sharing in order to build Africa's capabilities in STI policy research, policymaking and implementation for sustainable development.

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Key Messages

- Nigeria has enacted policies and institutional frameworks, most of which are not pro-organic agriculture per se but have some aspects that promote good principles and practices of ecological organic agriculture (EOA).
- Despite the numerous benefits associated with EOA, Nigeria just like many African countries do not have a stand-alone policy or institutional framework for EOA development. This has made EOA adoption rate in the country very sluggish.
- In Nigeria, organic products and inputs certification has been a challenge especially for the small-scale resource-poor farmers, who are the majority in the organic agriculture sub-sector. This limits their access to the high-end local and international markets.
- There is need for a sustained awareness creation on the benefits of EOA development in Nigeria. This will change the current narrative where only few stakeholders are engaged in the practice with little government supports, poor market outlets at domestic and international fronts and absence of certification standards.

1. Introduction

The imminent food and nutritional insecurity crisis in Africa have prompted an increase in the use of agricultural inputs, and particularly inorganic fertilizers, pesticides, herbicides and irrigation systems compelled by the increasing human population and food demand. This has triggered various farming intensification practices which have negative impacts on soils and biodiversity thereby affecting crop and animal genetic diversity, which in turn affects human nutrition and welfare that lead to increased costs for public health and communities' vulnerability to external shocks. The situation has been aggravated in some countries with poor and inappropriate technologies, poor governance and inadequate funding for the agriculture sector. This has necessitated a renewed focus by the African governments and agricultural actors to support and advocate for ecological organic agriculture (EOA) as a sustainable option.

Nigeria's agriculture sector is key to feeding its huge human population of over 206 million people as at 2020 (Statista, 2021). Its goal is to strengthen institutions to respond effectively and efficiently to the needs of the farmers and other participants in rural development for the enhancement of food security, poverty reduction and increase in agricultural exports. Over the past decade, there has been increasing public concern over nutrition, health and food safety issues. Consumers perceive high risks that are associated with the consumption of conventionally grown produce, thus shifting the attention to organic farming as a source of healthy food and healthy living. Moreover, given the prevailing climate change-related challenges and coupled with the increasing health and environmental concerns, EOA stands out as a viable option to provide healthy and nutritious foods that have been produced under a sustainable environment.

Although organic agriculture is not fully embraced in Nigeria, it is gaining momentum as the government among other stakeholders is getting more involved. However, many people are not yet aware of the potential benefits of ecological organic farming over conventional farming. Additionally, there are no well-established organic markets in the country thus posing a challenge on the producers. This is more so because there is no stand-alone policy and institutional frameworks that explicitly support EOA in the country.

It is worth noting that the world's richest biological resources are in the custody of farmers and can only be utilized through farming and proper land use activities. This constitutes the ecologically sound agricultural systems with diversified crop and livestock genetic biodiversity. Indigenous agricultural technologies can tap on these resources thus covering all aspects of sustainable agriculture, which forms the foundation for EOA. With the heightening health, nutrition and environmental concerns, there is need to look back and recollect our ancient ways which are healthy and sustainable. However, there is also need for a renewed focus on enhancing the productivity of the indigenous technologies to meet the growing food demand that has been instigated by high human population increase as well as reduced productivity due to environmental degradation and climate change. To achieve this, proper and functional institutions and policy frameworks are necessary to offer the most needed support and guidance to this sub-sector.

2. Rationale for EOA in Nigeria

Over the past decade, Nigeria's agricultural sector has witnessed a remarkable policy change aimed at increasing agricultural production and ensuring food and nutritional security for the citizens. However, there has been increasing concerns on food safety and nutrition issues triggered by human, animal and plant health challenges, as well as the need to protect and conserve the environment. This brings a renewed focus to shift from typical conventional farming methods to ecologically sound organic farming methods, which has been advocated by African leaders (Biovision Africa Trust [BvAT], 2015). Nigeria is also experiencing considerable political reforms aimed at increasing agricultural productivity. This comes as a realization that the government cannot achieve sustainable development unless its population is healthy and well-fed. The agriculture sector remains the main source of livelihood for most Nigerians providing food, feed, fibre, fun and income. The country has experienced changes in the macroeconomic environment which supports the growth of the agriculture sector. This includes the formulation and implementation of new agricultural policies and institutional changes aimed at supporting and guiding the agricultural activities in the country.

The wealth of existing indigenous knowledge, favourable climatic conditions and biomass among other natural resources provides a good environment for EOA development in Nigeria. The presence of diverse and creative eco-friendly and organic traditional practices in the country provides a strong foundation for EOA.

The heightening global concern for food safety and the need to protect the environment offers EOA an outstanding chance of becoming a viable solution. Its focus on ecologically friendly farming practices and avoidance of chemical inputs make it a preferred choice for adapting and mitigating against climate change-related challenges. Additionally, the demand both in Nigeria as well as in the international market for ecological organic products seems to be increasing, thereby creating a reliable market for the EOA products. The global, regional and national acceptance and endorsement of the EOA practices also offer a good opportunity for its advocacy and promotion. EOA has also attracted the interest of many development partners thus giving a financing opportunity to its practitioners.

3. Methodology

This study was conducted using mixed approaches. First, a comprehensive desk study was conducted where existing literature on all policies, strategies and institutional frameworks relevant to EOA in Nigeria were reviewed. Secondly, Key Informant Interviews (KIIs) were conducted with the identified EOA stakeholders at the national level targeting policymakers, researchers, non-governmental bodies, private sector, traders and individual actors among others. Finally, Focus Group Discussions (FGDs) were conducted with selected stakeholders to triangulate issues around EOA-related policies, strategies and institutional frameworks in the country.

4. Key Findings

Nigeria is yet to develop its potential in terms of organic agriculture, even though it is an agrarian country with a track record of being world leading producer of some crops at one time or the other. Organic agriculture in an organized manner is still young in the country (Global Agriculture Information Network, GAIN Report, 2014). As at 2018, organic agricultural land in Nigeria increased to 52,421 ha with only 102 registered producers (Willer and Willer, 2018). The practitioners are mostly a few farmers and some non-governmental organizations, such as the Association of Organic Agriculture Practitioners of Nigeria (formerly the Nigerian Organic Agriculture Network) (NOAN). Noteworthy, the sub-sector is faced with many constraints, including lack of technical know-how, delays in acceptance of Nigeria organic products in the world market, low level of organic certification, poor institutional support by the government, and inadequate government policies to safeguard organic farming. Most of the EOA relevant policies and strategies recognize some aspects of EOA such as ecology and biodiversity conservation, which are mainly environmental aspects.

4.1 Relevant National Policies, Strategies, Plans and Programmes that support EOA development in Nigeria

Some of the policies, strategies and plans that contribute to the development of EOA subsector in Nigeria include:

- a) ***Nigerian Vision 20: 2020 (NV20: 2020)***: Prepared in 2009, the NV 20:2020 does not explicitly support organic agricultural practices, instead, it guarantees food security to Nigerians by supporting initiatives to protect long-term use of farmlands and the establishment of clear property rights. It also supports agricultural research and promotes greater dissemination/ adoption of appropriate agricultural technologies.
- b) ***The Agriculture Promotion Policy (APP) of 2016***: The policy was created under the administration of President in 2016, to cure two economic issues; first, the shortage of food for local consumption, thus necessitating importation, and second the meagre foreign exchange earned from the

export of agriculture produce which includes organically produced products.

- c) ***Agriculture Sector Food Security and Nutrition Strategy (2015-2025)***: In 2015 the Government of Nigeria unveiled a ten-year food security and nutrition strategy for the agriculture sector. The strategy, which spans from 2015 to 2025, includes nutrition-sensitive interventions in agriculture, social protection and education and the provision of locally processed nutritious foods to children, pregnant and lactating women and girls (PLWG). However, this strategy has no explicit support for ecological organic agriculture but instead focuses on improving food and nutrition security in general.

- d) ***Nigeria Zero Hunger Strategic Review of 2017***: The Strategy articulates what Nigeria needs to do to achieve Sustainable Development Goal 2 (SDG2) that seeks to end hunger, achieve food security and improve nutrition, and promote sustainable agriculture by 2030. The multi-stakeholder zero hunger strategic review confirms Nigeria's commitment to the 2030 Agenda for Sustainable Development and recommends actions to end hunger and malnutrition in Nigeria by 2030 through food self-sufficiency, improved agricultural production, better youth employment and gender and nutrition mainstreaming. It recommends modernization of agriculture and more sustainable management of agricultural resources which is key to achieving zero hunger. These include production inputs such as mineral and organic fertilizers, soil conditioners, Integrated Soil Fertility Management (ISFM) and Integrated Pest Management (IPM) among others across all commodity value chains, thus supporting ecological organic agriculture.

- e) ***National Policy on Environment of 1991 and revised in 1999***: The policy defines a new and holistic framework for guiding the management of the environment and natural resources in the country. It prescribes intra and cross-sectoral strategic policy statements and actions for the management of the country's environment and resources for sustainable development. Moreover, it recognizes that the viability or otherwise of

the agricultural sector is crucial to the growth and development of a nation.

- f) ***Agricultural Policy for Nigeria of 2018:*** The Policy aims to provide a lasting solution to the country's intrinsic agricultural challenges and specifically food insecurity. The policy offers a multi-sectoral approach by giving policy recommendations and strategies to improve the productivity and income generation from the sector. The policy also strives for effective and efficient utilization of agricultural by-products, such as crops and fish by-products and wastes into valuable and other utilizable products such as bone meal, fish meal, fish oil and so on to promote environmental sanitation and prevention of environmental pollution. The policy also encourages the use of local raw materials for fertilizer production as organic fertilizers by farmers.

4.2 Institutional Framework for EOA development in Nigeria

The Nigerian agricultural sector has multiple stakeholders drawn from the government, private sector, Non-governmental organizations, farmer groups and cooperatives and individual actors. They form a complex stakeholder network with a large number of direct and indirect relationships and linkages. These stakeholder networks are the ones that should be actively involved in EOA policy development and programme implementation. The Association of Organic Agriculture Practitioners of Nigeria (NOAN) is the lead organization for EOA development in Nigeria and acts as the umbrella body for all other stakeholders in the country. Membership is drawn from farmers, scientists, processors, exporters, individuals, institutions, NGOs and organizations that are key players in the organic agriculture sector in Nigeria. NOAN also serves as a link between organic agriculture stakeholders in Nigeria and international bodies interested in organic agriculture. These actors have different levels of power and influence with regards to EOA development in Nigeria.

Although there has been undoubted effort to promote EOA in Nigeria, its full potential has not been realized yet. This is due to some factors that limit its full implementation. For instance, the Nigerian EOA sub-sector has many actors, whose linkage has not been strong enough thus limiting implementation

especially with respect to the flow of information, transfer of technology and coordination along the value chain. Even though many policies and institutional frameworks are supporting the agriculture sector, very few are in support of EOA practices. In addition, the technical capacity to support the commercialization of EOA is still wanting. The level of infrastructure is poor especially for post-harvest handling, thus limiting their shelf-life compared to the products from conventional agriculture where chemical preservatives can be used. There are no well-established markets for ecologically produced organic products, thus limiting their access and incomes for the producers. Moreover, many people are not aware of it, implying that the skilled labour force is inadequate.

At the Federal level, the Federal Ministry of Agriculture and Rural Development (FMARD) is responsible for the development, review and implementation of policies for agricultural development dealing with crops, livestock, fisheries, and forestry and, until of late environment. The Ministry's objective is to improve agricultural production and, in turn, enhance national food security and alleviate rural poverty. It provides technical support, production infrastructure, and supplies inputs to promote the adoption of productivity-enhancing techniques and technologies. The FMARD regulates agricultural research, agriculture and natural resources, forestry and veterinary research throughout Nigeria. It is responsible for developing the agriculture sector of the Nigerian economy, driving income growth, accelerating food and nutrition security, generating employment and transforming Nigeria into a leading global food market and net exporter, through the commodity value chain concept of the Agricultural Transformation Agenda (ATA).

Under the FMARD there is the Federal Department of Fertilizer (FDF) which is responsible for: Market stabilization through the introduction of measures to enhance fertilizer market stability, Quality control and monitoring for organic and inorganic fertilizer, Monitoring of fertilizer use by farmers and industries, Conducting of tests and trials on new fertilizer technologies and products to generate information for fertilizer recommendations and development, and promotion of the use of organic fertilizers. Other actors include the Federation of Agricultural Commodity Association of Nigeria (FACAN) and the Farmers

Development Union (FADU) which represent Farmers/Producer organizations involved in the production of organic inputs, its assessment and distribution. In terms of conducting research, training and extension on organic agriculture, several institutions are involved such as the Oyo State College of Agriculture and Technology, National Horticultural Research Institute, Forestry Research Institute of Nigeria, Ambrose Alli University and Osun State University among many others. The private sector has recently started being attracted to the subsector because of the immense business opportunity therein but their involvement is still very low (Mgbenka et al., 2015).

5. Conclusion

This policy brief provides insights into the policy and institutional frameworks of EOA development in Nigeria. It highlights some of the policies, strategies and plans that have been put in place by the government to enhance EOA subsector to increase food productivity, enhance incomes of farmers as well as ensure food safety while addressing environmental concerns. The findings of the study reveal that there are no policies, strategies or plans that directly support EOA in Nigeria but some of the institutions that support conventional agriculture have been established to also address aspects of EOA development in the country. For instance, the public and private research organizations and institutions continue to conduct research on EOA good practices and technologies. These institutions and organizations are however very few in number and not well motivated. There are not enough established organic produce markets hence the disposal of organic produce is still one of the limiting factors to EOA development in Nigeria. There are few stakeholders involved in capacity building, production, research and dissemination of information on EOA as there are many constraints that militate against the growth and development of the subsector. There is need for policy review especially in the agriculture sector to ensure strong inclusion of EOA friendly statements in order to support its growth to match that of conventional agriculture. It is also important that the engagement of all stakeholders in the subsector is encouraged so as to bridge the existing gaps in information flow, capacity building, awareness creation, and certification as well as funding research and extension services to promote the practices.

6. Policy Recommendations

The growth and sustainability of EOA in Nigeria are dependent on many factors, both endogenous (such as policy changes, technological progress, innovation, human resource etc.) and exogenous (such as weather conditions, political instability etc). Therefore, the government in collaboration with other stakeholders should exercise their powers and execute their mandate to ensure successful development and implementation of EOA, which is promising given the rich natural resource base of the country and the growing demand for the products. For its success and sustainability, the following policy and institutional recommendations are proffered:

Recommendation 1: Review current agricultural policies and programmes to mainstream EOA

To promote EOA development and to make it competitive, the government should review its current policies and programmes and remove disincentives to organic agriculture, such as subsidies on agro-chemicals and instead incentivise and promote the supply of organic inputs to farmers. This is because many policies are pro-conventional farming as a way to increase farm productivity and have no specific concern for ecological organic agriculture.

Enactment of new laws and regulations is required to achieve the mainstreaming agenda such as the National EOA Implementation bill which will ensure that EOA practices are recognized and guided by the law and other policy instruments such as sanctions and incentives as the case may be. Additionally, there is need for an elaborate and supportive institutional framework that will oversee proper implementation of organic and eco-friendly practices in the country.

Recommendation 2: Mainstream EOA into the educational curricula

As part of a sustained capacity building approach for EOA development, there is need to develop new curricula on EOA at the different educational levels in the country – primary, secondary and higher education. For instance, introducing a full course or department on EOA in institutions of higher learning will go a long way to instil the principles and practices of EOA into the consciousness of youth and could spur some technological developments and innovation in the

subsector. Moreover, more research and training are required to unveil new and relevant eco-friendly organic practices specific to various parts of the country. This may require the formation of new institutions and linkages to promote EOA development.

Involvement of the private sector in promoting EOA through agribusiness, the establishment of organic fertilizer plants, agricultural commodity storage, processing and marketing, agricultural input supply and distribution is crucial. This will give it a holistic and inclusive dimension for its development. This will also attract foreign funding and investors thus spurring the growth of the EOA sub-sector.

Recommendation 3: Increase budgetary allocation for EOA research and increase incentives for organic farmers

The government should increase its budgetary allocation specifically to EOA activities. More public expenditures should be directed towards increasing research and development on EOA in the country. This will unveil new technologies and opportunities in the sub-sector that will increase the productivity and returns from EOA, hence making it a profitable venture to the local population. This is because many EOA farmers currently rely on traditional knowledge which limits their agricultural productivity.

The government should consider incentivizing organic farmers, which will increase the adoption rate of organic farming practices in the country. This may include offers like tax relief on organic products and the establishment of free trade fairs and exhibitions where stakeholders can exchange information and ideas on ecological organic farming. Subsidizing organic inputs will also make them affordable to everyone hence increasing the adoption of EOA practices.

Recommendation 4: Increased sensitization, market access and certification of EOA and its products

Regular sensitization and awareness creation on the numerous benefits of EOA especially on health, finance and environment is required. It should emphasize its contributions in mitigating climate change impacts. Such awareness creation and sensitization can be achieved through EOA television programmes, radio

jingles, newspaper publications and posters among others. This will increase public awareness on EOA over the prevalent conventional farming and may trigger strong and functional stakeholder linkages along the value chains for proper flow and exchange of information on production, marketing and utilization. It is also paramount to train the government extension personnel on the new EOA technologies to enable them to demonstrate and educate the farmers accordingly. This should target more on the youth and women since they are more involved in agricultural activities in the country.

There is no government approved certifying body yet to regulate and ensure compliance with Organic Production system. However, NOAN is sensitizing the Nigerian Government to produce policy on Organic Agriculture and Standards Organization of Nigeria (SON) to facilitate establishment of National Organic Standards. To improve market access for EOA products, there is need to establish a well-organized market for local and international outlets. The Nigeria market is a priced market which does not support premium price for organic produces as such farmers income cannot appreciate to compensate for the much labour required in organic farming. There should be organized standard sales outlets for organic products to bring producers closer to potential buyers and consumers who should be well informed on the health values of organic through advertisement and other means. The FMARD should provide accreditation that authorizes private or government certifying agents. Once the organic products standards are assured in the country, there is high propensity for domestic and international markets for organic products from Nigeria which will earn a lot of income for the producers and increase the contributions of agriculture to the country's GDP.

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